# Ope Cimes of Amia DIRECTORY & YEARSON

INCLUDING WEO'S WHO

1970

# Instant contact with your consignment-

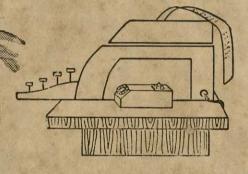
your marketing is motorised by

# Telex

In a jiffy, any TCI office can locate your consignment or pick up goods from any station for urgent delivery to you.

Please note our TELEX SERVICES in the large metropolitan cities:

Station	Telex No.	Station	Telex No
Ahmedabad	012-340	Kanpur	032-227
Bangalore	043-336	Madras	041-559
Bombay	011-2776	Nagpur	013-273
Calcutta	021-7040	Poona	014-208
Coimbatore	042-305	Secunderabad	015-308
Delhi	031-7125	Vijaywada	047-211



Trucking in the Customers' Interest!

# Transport Corporation of India Pvt. Ltd.

Transport House, Poona Street, Bombay-9.

Phone - 336341

T.C.I. serves you with its 248 Branches all over India.

The Times of India

# DIRECTORY & YEARBOOK

INCLUDING WHO'S WHO



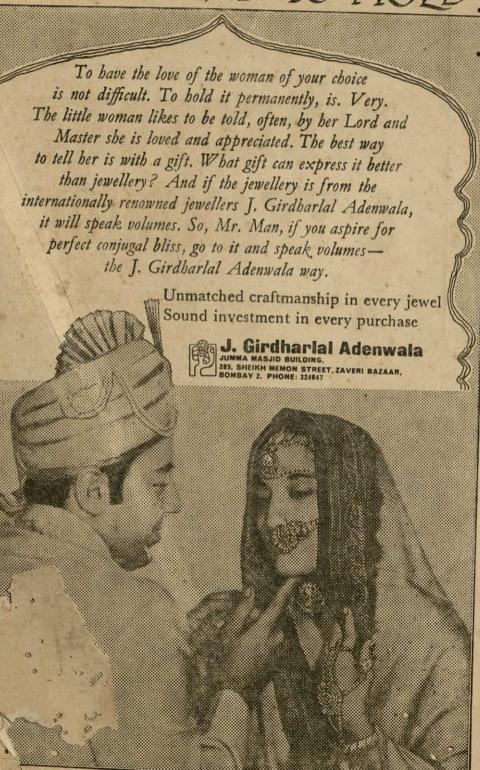


THE TIMES OF INDIA PRESS, BOMBAY

Branches : 3, ALBEMARLE STREET, LONDON, W. 1; 7, BAHADUR SHAH ZAFFAR MARG, NEW DELHL GOVT. PLACE EAST, CALCUTTA; 39-A, WHITES ROAD, MADRAS 14; 139, ASHRAM ROAD, AHMEDAB

PRICE: Rs. 60-00





skylark/108

### CONTENTS

All possible care is taken to check the information given in this volume. But the publishers cannot take responsibility for chance errors or omissions. Authoritative corrections will be gratefully received.

There is in some cases a discrepancy between the figures from the Central and a State Government relating to the same subject. This is generally pointed out in a foot-note.

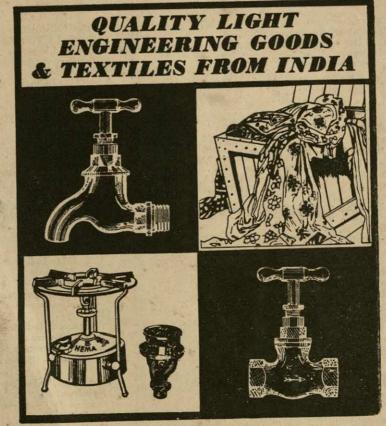
a	175 Approximation of the same	ALCOHOLD !	HOLLOW	Page			Page
	Index to Advertisers	M. TO		v	Automobile Industry		183
4			100	xxiv	Chemical & Pharmaceutical Industry		189
	D 11.1 1 35 CT 11		Opp. 1				192
	Control of the contro			1	W.F. 11	1/16	200
	1 0 0 0	ners.	TO SEE	2	Rayon Industry		202
素	Defense Convices			12	CH C T T T	1000	204
	The state of the s	New autout Year	Hiller	16	777 71 77 7	TA ME	207
				20	Paper Industry		208
	TO COMPANY OF THE PARK OF THE		TO STATE	24	7 1 1 7 1		209
			STATE OF	26	Petroleum Industry	The same	212
				29		No. of the last	213
			7	33	Steel Industry		216
	Institutions for the Blind in India			37	Tea Industry	1	217
					Textile Industry		224
	Overseas Communications Service			39 40	Vegetable Oil Industry		226
	Ports				Import and Export Trade		234
		** B ** 5	57410	43 50	Money Supply	35.00	235
	Research	mond Closes		59	National Income	AU 7	236
	Scheduled Castes, Tribes and Back			63	Posts and Telegraphs	3.0	238
				65	The Press		246
		•••		70	Social Welfare in India		250
	Alcohol Industry	••		71	Foreign Aid to India		
100	The state of the s	••		72	U.S. Aid to India	1	253
C		1.5	100	73	Index Numbers	MIT IN	256
	Cement Industry	••		75	I ubite I maned		256
-		••		76	Shipping Companies and Airways	1	260
-					Airway Companies		263
				77	Railways		265
				83	Government Industrial Undertakings		
				84	Indians Overseas	A separate	286
			1.5	86	Budgetary Positio. States: 1970-71		288
			**	87	Awards and Prizes		289
	Jute Industry	•	**	88	Labour		296
				90	Industrial Production 1969	2	307
				91	Broadcasting		311
				94	Community Development Projects and Panch	ayats	314
			1	96	Sports	4.	317
			**	100	Fourth Five-Year Plan	* * *	319
	Spices	••		102	Housing		321
	Sugar Industry			104	Indo-Pakistan Relations		323
			1.	106	Sino-Indian Relations	4/10/05	325
	Banking		***	107	General Elections (1967)		327
		· 10 5 3 3		109	Legislative Councils, Legislative Assemblies,		13 11 2 1
	Industrial Structure and Policy		70000	113	Sabha and Rajya Sabha		332-60
0	The Cooperative Movement (1967-	The state of the s		118	Some Political Parties	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	360-67
				123	Akil Bharat Hindu Mahasabha		360 •
		• • • • • •		141	All India Forward Bloe		360
		••		151	Bharatiya Jan Sangh	-	361
				152	Communist Party of India (Marxist)		361
				154	Communist Party of India	of Maria	362
				157	Dravidian Progressive Federation		362
			The same	161	Indian National Congress (Organisation)		36
30				163	Indian National Congress (Ruling)		363
			300	165	Peasants and Workers Party of India		364
	State Corporations	A STANT	ALC: YE	170	Praja Socialist Party		365
			No. Com	176	Revolutionary Socialist Party		365
	Foreign Exchange Controls			177	Samyukta Socialist Party		365
3	India's International Investmen	t Position	in		Swatantra Party		366
	700F 00 ( 1 7000 0F	The sales of the sales		179	Bihar Vidhan Sabha		367
						-	

A

IMPORTERS

EXPORTERS

MANUFACTURERS'
REPRESENTATIVES



Write or contact:

# HEMANI BROTHERS

Mulchand Mansion, Room No. 6, Princess Street, Bombay 2.

Grams: "HEMAGROUP" Telex: Bom. 3057

Phone: 311715

Calcutta Associates:

CHUNILAL PRABHUDAS & CO. (CAL.) P. LTD.
MANSUKHLAL & BROTHERS

I, Bonfield Lane, Calcutta-I.

				COI	VIENTS STATES II
				Page	Pag
Educational Statistics				370	Orissa
Andaman and Nicobar Islands		100		374	Map of Orissa Q. (Opp. P. 515
Amdhra Pradesh				375	Administrative Personnel 52
Map of Andhra Pradesh	1			376	Pondicherry 59
Associations, Institutions, etc.	a de la constante de la consta			380	Administrative Personnel 52
Administrative Personnel				382	Punjab 525
Assam State		17.70		383	Punjab 52: Map of Punjab 52: Associations 52:
Map of Assam		100		384	Associations 520
Associations				387	Administrative Personnel 52'
Administrative Personnel				388	Rajasthan State 52
North East Frontier Agency				389	Map of Rajasthan 528
Meghalaya				390	Associations 53
Administrative Personnel				390	Administrative Personnel 533
Bihar State				391	Tamil Nadu 533
Map of Bihar				392	Map of Tamil Nadu 534
Associations		1000		397	Associations 538
Administrative Personnel	**		1000	398	Administrative Personnel 54
Delhi				399	Tripura 540
Associations, Societies, etc.		**		401	Administrative Personnel 54
Administrative Personnel	**	HAS TO BE	100	409	Titt - Ddl
Goa, Daman and Diu	100	W. W.		409	Map of Uttar Pradesh
Administrative Personnel	**	0.		412	Associations 55
Dadra and Nagar Haveli	THE STATE OF	是自己的		412	Administrative Personnel 556
Aujarat				413	West Bengal 55
Map of Gujarat				414	Map of West Bengal 558
	2000	- Land		23-26	Associations 563
Associations	To the	Melli I	**	426	Administrative Personnel 570
	**	1000	No.	427	Government of India Personnel 571-8
Haryana	* O 11 H	STATE OF THE PARTY.	1000	428	Indian Embassies Abroad 588
Map of Haryana	••		130	430	T 1' M 1 0
Himachal Pradesh	in the same	Post	4	431	Embassies in India
Administrative Personnel	- C) A	Tosy	9193	432	TT: 1 ()
Jammu and Kashmir State			100	432	T : 0 - 1 - 0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Map of Jammu & Kashmir				433	TIN 9 OIL - D. I'm '- T. I'.
Administrative Personnel				435	TO . TO
Kerala				435	
Map of Kerala		1.	::	436	States Commercial Firms & Classified Trades 590
Associations	1	EX TE	1	442	Andhra Pradesh Commercial Firms 590 Classified List of Trades & Professions 590
Administrative Personnel		100	13.3	444	,, Classified List of Trades & Professions Delhi Commercial Firms
accadive, Minicoy and Amindiv				445	CO 10 17: 1 CM 1 C D C 1
Madhya Pradesh	··			446	Goa Trades & Professions 61'
Map of Madhya Pradesh		A STATE OF THE PARTY OF THE PAR	3.8	447	Gujarat Commercial Firms 618
Associations				453	Classified List of Trades & Professions 620
Administrative Personnel				454	Commercial Firms in Bombay 631-700
Maharashtra	3000		200	455	Classified List of Trades & Professions in Bom-
Map of Maharashtra		San		456	bay 700-74
Greater Bombay		The state of the	35.3	466	Poona District Trades & Professions 778
Associations			4	71-92	Bangalore Trades & Professions 779
Districts in Maharashtra		100	4	93-99	Madras Commercial Firms 784–90
Administrative Personnel	1000			499	,, Classified List of Trades & Professions791-80
Manipur				501	Coimbatore Commercial Firms 806
Administrative Personnel				502	,, Classified List of Trades & Pro-
Aysore	1000			502	fessions
Map of Mysore				503	Commercial Firms in Calcutta 811-2
Associations and Institutions		NA PA		509	Classified List of Trades & Professions (Calcutta) 825-4
Administrative Personnel	. 18	100	1979	512	Who's Who
Vagaland	1	. When		512	General Index
Administrative Personnel		20. 212		513	Statement about Ownership 96

INSTITUT



# calling all industries!

Increase profits
now—by knowing
accurately at
any time of the
day the exact
tally of production on any and
every machine

Metro High precision Counters enable you to control production by accurately counting both work done and wasted production at every stage of production. They help you co-ordinate production on various machines and save time, labour and raw materials by eliminating guesswork and manual counting.

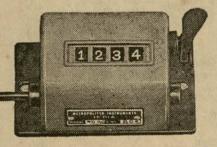
Two types of METRO high Precision COUNTERS are available.

- Mechanical—for fixing on to working units
- 2. Electro Magnetic for remote panels.

Counters upto 8 digits with or without reset and with totaliser are available.

metro counters are available for anything that needs counting.

One year guarantee with each counter. Service before and after sales assured.



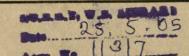
manufacturers

# metropolitan instruments limited

trivandrum-17.

SAS-MIL-69.03

Stockists for Western Region: Bombay Tools Supplying Agency, T. G. Shah Building, Pydhonie Junction, Bombay 3. Dominion Radios, 15, Queen's Road, Bombay 4. Industrial Engineering Corporation, 43, Laxmi Building, Nagdevi Cross Lane, P. B. No. 3208, Mandvi, Bombay-3. Pioneer Industries, 43, Nagdevi Cross Lane, Bombay-3. P. Ratilal and Company, 43, Dhanji Street, Moti Mahal, Bombay-3. Vijay Trade Syndicate, 116/118, Narayan Dhuru Street, Bombay-3. Vacuum Plant and Instrument Mfg. Company (P) Ltd., P. O. Mundhava, Poona. Davy and Co., Dhareker Heights, 38, Karve Road, Poona-4. Vinodchandra and Company, 96, Nagdevi Cross Lane, 1st Floor, Bombay-3.



### INDEX TO ADVERTISERS

	(Stanceon)		- C
The second secon	Page		Page
A. Lunar Engineering	728	B. M. Abdeally & Co	640
A. A. Morbiwala & Co	631	B. A. Taskar	640
Acme Sales	772		716
Adair, Dutt & Co. (India) Pr. Ltd.	631		641-731
Andrew Yule & Co. Ltd	XV		708, xii
Ahmedabad Electricity Co. Ltd	623-624		600
Allied Electronics Corporation	00	Di	749
Alcock Ashdown & Co. Ltd	716	The state of the s	640
Arcoy Industries	620	Billion Plastics Pr. Ltd	754
Asian Chemicals Co	716	Balakrishna Pen Pr. Ltd	viii
Asbestos Cement Ltd	63	Bombay Mercantile Co-operative Bank Ltd.	710
Arc Brazer Pr. Ltd	773	Bombay Samachar	640
Associated Cement Companies Ltd	63	D	765 641
Associated Agencies (Bombay)	636	Bank of Maharashtra	
Associated Chemical Syndicate	71	Daimae Dhatia Washinam Comm	641
Advani-Oerlikon Pr. Ltd	635	Bright Brothers Pr Itd	754
Arya Vaidya Sala	63	Dulibai e Ca Da Tal	643
Agfa Govaert India Ltd	THE RESERVE TO SERVE THE PERSON NAMED IN	Burroughs Welcome & Co (India) Pr. Ltd.	636
Allibhoy Sharafally & Co. Pr. Ltd.	63	Birkmyre Bros. Pr. Ltd	642
Altex Pr. Ltd Ansons Electro Mechanical Works	724	Braico Metal Industries Pr. Ltd	642
Amruddin Shalibhoy Tyebjee & Sons	63	British Bank of the Widdle Basi	707
Anson	75	Christensen Longyear (India) Ltd	643
Andeo India Ltd	636-78	Commercial Credit Corpn. (1943) Pr. Ltd.	644
Bharat Electrical Industries Ltd	83	Candy Fitters (India) Ltd	644
B. Chowdhury & Co	63	Camin Pr. Ltd.	644
B. G. Shirke & Co	77	Gaprinans (India) Pr. Ltd	645
		Catalyst (India) Ltd	645
	A SURE OF THE	Caltex (India) Ltd	645
	2016	Cement Marketing Co. of India Ltd	646
SHAHABAD HEAVY ENGINEER	ING	Chartered Bank 709 & Facing Ger	eral Index
		Chunilal Mulchand & Co	646
A DIVISION OF		Cosmic Radio	xiii
MIN ARROWANT PRINTING TONDANIES ITT		Consolidated Pneumatic Tool Co. Ltd	646
THE ASSOCIATED CEMENT COMPANIES LTD.	ALIGNATURE TARE	Caltex Oil Refining (India) Ltd	646
are manufacturers of varied types of Heavy	machinery	Capco Pr. Ltd.	647
such as-		Camlin Pr. Ltd	736
Cement plants and allied    Paper and pulp machinery     machinery	THE REAL PROPERTY.	Chemi-Colour Industries Pr. Ltd	647
machinery  Pelletising plants Heavy grey iron Heavy duty electric cranes  Castings		Chowgule & Co. (Hind) Pr. Ltd	040
Heavy duty electric cranes castings	1	Central Camera Co. Pr. Ltd	819
	FAL	0 . 1 1 . 1 6 0 7.11	648
FIGURE		Colour-Chem Ltd	648
日は日本	1	Chic Cosmetics (Private) Ltd	649
	6/	Ciba of India Ltd	649
	1/4	Cummins Diesel Sales & Service (India) Ltd.	775
	THE PARTY OF THE P	Crompton Greaves	650
A A A A A A A A A A A A A A A A A A A	SIM I	D. A. Mehra Steels (Pr.) Ltd	767
		Dunlop India Ltd	651
	- N - M - G	Devidayal Stainless Steel Industries Pr. Ltd.	
		Devidayal Cable Industries Ltd	714
	0	Dadaji Dhackjee & Co. Pr. Ltd	652
60 5	W	Dadabhoy's New Chirimiri Ponri Hill Colli	
		Co. Pr. Ltd	652
		Dorr-Oliver (India) Ltd Dena Bank	709
	1	Devidayal Cable Industries Ltd	352
(F)	9/	Dattatraya Industries Pr. Ltd	653
6	100	Dwarkadas Velji Talpatriwala	763
CHANADAD HEAVY ENGINEEDING	M	De Smet (India) Pr. Ltd.	653
SHAHABAD HEAVY ENGINEERING, (The Associated Cement Companies Ltd.)		Designers Pr. Ltd	703
	ACC 9916 B	Dhiraj Steel Co	766

maa. ACC. 9916 B

### DIRECTORY & YEARBOOK

		Pag	e management of the second of	Page
Endesco Pr. Ltd		65	4 John Fowler (India) Ltd	672
			x Jasvant C. Shah & Co	672
Essential Engg. Co		65		673
		77	4 Jash Engineering Industries	674
Elmot Engg. Co. Pr. Ltd		65	4 K. Avinash VKE Industries	720
Ellora Art Industries		72		611-675
Evergreen Wirecloth Factory		65		ili, xix, xxi
Esoofali Esmailji Karachiwala & Co.	2 10 10 17	73		
Engineering Construction Corpn. Ltd.		655-78		03, 613, 675
Endesco Pr. Ltd	Man Pro	73		726
Eutectic Welding Alloys of India Ltd.		65		675
Everest Advertising Pr. Ltd		65		777
Fairfield Manufacturing Co		71	8 Kores (India) Ltd	675
Fairfield Manufacturing Co French Motor Car Co. Ltd		65	IV	713
Famous Ladders		73	Kwality Tool Steel Corneration	767
Flemming, John & Co. Pr. Ltd	D ** 1 100	650		0=0
	r de mile	65		677-820
Finlay, James & Co. Ltd		658		725
Fyrofo Pr. Ltd	Will DECKAR	733		
		658	M. J. Industries	752
Garlick & Co. Pr. Ltd		659		270
George Oakes Ltd		659	Manufacture Classical Washer Tal	782
Gulf Oil (India) Pr. Ltd		659	Manual Classical of Tadia Da Tad	678
Gokak Mills Ltd		660		iv
Goyal Electronic Industries		000	35-4-10- W-1- D- T43	679
Grant Advertising (India) Ltd	Teer Line	000	No. 4 - 1 Douglass dama De Tad	743
Greaves Foseco Ltd Globe Products		M.10		679-740
0 1 0 0		00/	36: 36 1 : 1 W 1	747
Glaxo Laboratories (India) Ltd		661	M-44 D1-11 T44	679
Gosalia Shipping Pr. Ltd		61'	7 35 0 35 D- T43	xxiii
		66		711
Gujarat Industrial Trucks Ltd. (Facing			Martin & Harris (Pr.) Ltd	679
Greaves Cotton & Co. Ltd		662-663		763, xi
Heatly & Cooks on (India) Idd		664	Mafatlal Gagalbhai & Co. Pr. Ltd.	680
Heatly & Gresham (India) Ltd Hindustan Lever Ltd		00	Mather & Liabo Loc	732
Hindustan Lever Ltd Hindustan Wire Netting Co. Pr. Ltd.		66	Mazagon Dock Ind	680
Hindustan Brown Boveri Ltd		66	5	702
Hemani Brothers		Contents	New Great Insurance Co. of India Ltd	681
Hardcastle Waud & Co. Pr. Ltd	1 C S 2 C S 2 C S	66	Noble Stationery Mart	761
Harshad Dye-Chem Industries		725	National Advertising Service Pr. Ltd	701
Hotel Palace Ajanta		734		000
TT TO TTO I I I I I I I I I I I I I I I		660	National Organic Chemical Industries Ltd.	711
Hico Products Pr. Ltd	• 7 • 7	764	National Rayon Cornn Ltd	683
Hindustan Export & Import Corpn. Pr	r. Ltd.	666	National City Bank	710
Hindustan Scale Co	1000	771	New Standard Chemicals Co. Pr. Ltd	715
Hindustan Ferodo Ltd.		706	0 0 71 1-0 7-1:171	604
Hongkong & Shanghai Banking Corpora	ation	710	O M. 111: 1 The Company Text	749
Indian Vegetable Products Ltd	No Ten Hill	. 667	7	M10
Indian Tool Mfrs. Ltd		. 667	Parikh & Sons	718
Indokem Pr. Ltd		. 667	Polyolefins Industries Ltd	MAO
Indabrator Ltd	M.Lan	. 668	DC THI	COE
Imanes Pr. Ltd		761	Prizer Ltd	769
Imkemex India Ltd		668	D. Diller Co (Tadia) Da TAd	COE
Indian Cable Industries		. ix	Pratibha Advertising	702
Indian Hume Pipe Co. Ltd		. 669	Parry & Co. Ltd.	686-687
I.C.I. (India) Pr. Ltd		670	Perfect Machine Tools Co. (Pr.) Ltd	730
Itlab Engineering Pr. Ltd		. 729	Plas-Fab Pr. Ltd	688, xvii
Indian Commercial Co. Pr. Ltd		671		688
Indian Wax Industries		718	Poly Rubber Industries	757
Jaipur Metals & Electricals Ltd		671		689
J. Girdharilal Adenwala		Contents		705
J. P. Coats (India) Pr. Ltd.		.647-672		746
Jairamdas Udyog Pr. Ltd		. 672-765	Royal Insurance Group	689

	Page
Radio & Electricals Mfg. Co. Ltd	783
Rallis India Ltd.	690
Rajmal Paharchand	690
Rameshchandra Santram	752
Richardson & Cruddas Ltd	690
Remington Rand of India Ltd	691
Sen Harvic	762
Skoda India Pr. Ltd	605
Shubh Machinery Corpn. Pr. Ltd	exxxvi
Spencer & Co. Ltd	691
Special Steels Ltd	762
Surat Electricity Co. Ltd	692
Comp Consider D. T. J.	772 vii
Starit Engineering Co Pr Itd	xxi
S. H. Benson (India) Pr. Ltd	692
Sassoon & Alliance Silk Mill Co. Ltd	760
Suessen Textile Bearings Ltd	692
Sahabad Heavy Engineering	v
Sandoz (India) Ltd	693
Scindia Steam Navigation Co. Ltd	760
Sewri Engineering Construction Co. Pr. Ltd	693
Simplex Timber Mart	738 693
Sarabhai Engineering Group	711
Shaw Wallace & Co. Ltd	694
Sorabji Nowroji & Co	735
Solid Containers Ltd	694
State Bank of India	711
Tata Fison Industries Ltd	695
Tata Fison Industries Ltd	000
Transport Corporation of India Pr. Ltd (Ins	ide
Transport Corporation of India Pr. Ltd (Ins Front	200
	200
Tata Sons Pr. Ltd	Cover) 695 695
Tata Sons Pr. Ltd	Cover) 695 695 695
Tata Sons Pr. Ltd	Cover) 695 695 695 Cover)
Tata Sons Pr. Ltd	Cover) 695 695 695 Cover) 696
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd.	Cover) 695 695 695 Cover) 696 697
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd.	Cover) 695 695 695 Cover) 696 697 771
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd.	Cover) 695 695 695 Cover) 696 697
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd.	Cover) 695 695 695 Cover) 696 697 771 697
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Taunes India	Cover) 695 695 695 Cover) 696 697 771 697 xx
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd.	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 697
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd.  Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd.  Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Taunes India Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd.	Cover) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tatures India Tata Engineering & Locomotive Co. Ltd. Tractor Engineers Ltd. Tractor Engineers Ltd.	Cover) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719 698
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Traner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tatures India Tata Engineering & Locomotive Co. Ltd. Tractor Engineers Ltd. Transacto	Cover) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Taunes India Tata Engineering & Locomotive Co. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719 698 724 xii
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Taunes India Tata Engineering & Locomotive Co. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd.	Cever) 695 695 695 Cever) 696 697 771 697 xx 697 794 697 719 698 724 xii 760
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trate Engineers Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719 698 724 xii 760 515
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.  Vishwa Bharati Trading Co.	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719 698 724 xii 760 515
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd.  Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.  Vishwa Bharati Trading Co. Vanguard Corporation	Cever) 695 695 695 695 Cever) 696 697 771 697 xx 697 794 697 719 698 724 xii 760 515
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.  Vishwa Bharati Trading Co.	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 697 719 698 724 xii 760 515
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd.  Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.  Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd.  Wakefield Products Co. (India)	Cever) 695 695 695 Cover) 696 697 771 697 xx 697 794 698 724 xii 760 515 772 759 699
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd.  Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Travale Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd.  Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd.  Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd.	Cever) 695 695 695 Cever) 696 697 771 697 xx 697 794 698 724 xii 760 515 772 759 699 778 755
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Turner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Trata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trate Wings Pr. Ltd. Trata Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd. Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd.  Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd. West Coast Paper Mills Ltd.	Cever) 695 695 695 696 697 771 697 78 697 794 697 719 698 724 xiii 760 515 772 759 699
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Traner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Trata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Tratae Wings Pr. Ltd. Tratae Wings Pr. Ltd. Tratae Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd. Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd.  Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd. West Coast Paper Mills Ltd. Williams, G. & Co. Pr. Ltd.	Cever) 695 695 695 696 697 771 697 78 697 719 698 724 xiii 760 515 772 759 699 778 755 749 699
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd. Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd. Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd. West Coast Paper Mills Ltd. Williams, G. & Co. Pr. Ltd.	Cever) 695 695 695 696 697 771 697 xx 697 794 698 724 xii 760 515 772 759 699 778 755 749 6699 666
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Traner, Hoare & Co. Ltd. Travancore-Cochin Chemicals Ltd. Trata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Trate Engineers Ltd. Trata Engineers Ltd. Tranes India Tata Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd. Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd.  Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd. West Coast Paper Mills Ltd. Williams, G. & Co. Pr. Ltd. Williams, G. & Co. Pr. Ltd. Workshop Engineering & Equipment Co.	Cever) 695 695 695 696 697 771 697 784 697 719 698 724 xii 760 515 772 759 699 778 769 699 606 766
Tata Sons Pr. Ltd. Tata Hydro-Electric Agencies Ltd. Tata Hydro-Electric Agencies Ltd. Tata Industries Pr. Ltd. Tube Investments of India Ltd. (Inside Back Turner, Morrison & Co. Ltd. Tata Oil Mills Co. Ltd. Tata Oil Mills Co. Ltd. Trade Wings Pr. Ltd. Trade Wings Pr. Ltd. Travancore-Cochin Chemicals Ltd. Tata Iron & Steel Co. Ltd. Tata Iron & Steel Co. Ltd. Tata Engineering & Locomotive Co. Ltd. Trade Wings Pr. Ltd. Tractor Engineers Ltd. Transacto Union Bank of India United Liner Agencies of India Pr. Ltd. Utkal Machinery Ltd. Vishwa Bharati Trading Co. Vanguard Corporation Voltas Ltd. Wakefield Products Co. (India) Water Supply Specialists Pr. Ltd. West Coast Paper Mills Ltd. Williams, G. & Co. Pr. Ltd.	Cever) 695 695 695 696 697 771 697 xx 697 794 698 724 xii 760 515 772 759 699 778 755 749 6699 666

Non-Ferrous Metals & Alloys \*\*

# SARU SMELTING PRIVATE LIMITED



### Manufacturers of:

All sorts of Non-ferrous Metals and Alloys, specialists in Resin and Flux Cored Solder Wire, Bearing Metals, Tin Solders, Type Metals, Gun Metal, Bronze, Silver Solder and Brazing Alloys, Bronze Gas Welding Rods and Continuous Cast Phosphor Bronze Rods and Wires etc. Approved Suppliers to Central and State Governments, D.G.S. & D., Railways, etc.

Regd. Office: Sardhana Road, Meerut.

Phone Nos.: 2942, 4231 & 4933.

Tel. Address: "METAL MEERUT".

Directors: S. P. Jain, S. S. Jain, M. S. Jain, D. P. Jain, Dr. N. G. Chatterjee, K. C. Modi, R. D. Mithal.

General Manager: Multan Singh Jain.

Marketing Manager: N. C. Jain.

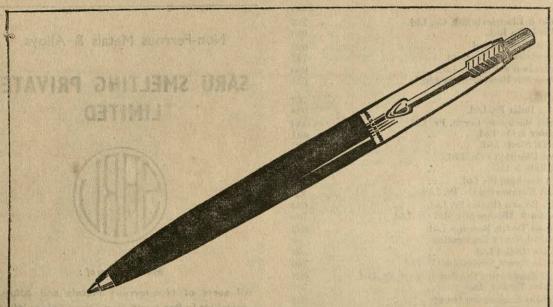
Secretary: P. N. Agrawala.

### Branches:

Calcutta: P-35, India Exchange Place.

Tel. Address: "SARUCOR". Phone: 222465.

Delhi: 30, Chawri Bazar. Phone: 261865.



# YOU CAN'T SEE THE DIFFERENCE

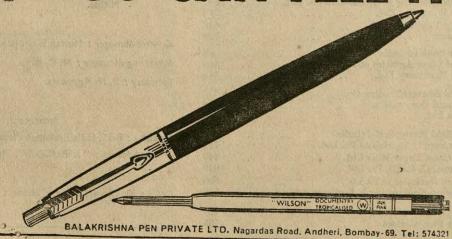


THE MOST DEPENDABLE NAME IN WRITING

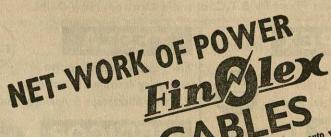
Compare WILSON with other ballpens. You realize the difference only after the pen goes into action. To-day many ballpens look elegant, sophisticated and refined, yet they fail hopelessly in performance. But WILSON BALLPENS possess BEAUTY and 'unfailing' GOOD PERFORMANCE.

The ball-point is Inlaid for strength, putting speed, spontaneity, facility into every stroke of penmanship. The ink flows instantly, evenly and smoothly, because it is alcohol based. WILSON'S Unique Refill can be fitted in similar imported Ballpens.

# BUT YOU CAN FEEL







Lights blaze in millions of homes, auto vehicles ply in thousands on the highways and by-ways of the important countries of the world because of FINOLEX auto and household cables. And taken right from the ingot stage to the final finished shape to produce cables which conform to the international standards in matters of technical international standards in performance and international standards in performance and international standards popularity and foreign economy. The increasing popularity and foreign of FINOLEX helps carn considerable national exchange, so vital to the progress of the ways a cordial answer to the ceaseless foreign enquiries; the ceaseless foreign enquiries;



# INDUSTRIAL INSTRUMENTS AND EQUIPMENTS

At Prices Fixed By S.T.C. of India Limited, New Delhi.

## METRIMPEX

Material Testing Equipments including Transistorised Strain measuring system and Metal Sorters.



# NUCLEAR INSTRUMENTS

1024 Multi Channel Analyser, Scinticart II
Automatic Bio-Plotter & Radio Circulograph

### TESLA



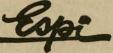
Electronic & Communication
measuring Instruments including
Electron Microscope & Analogue Computers.

## **MEDICOR**



Industrial X-Ray Apparatus including Circumferential Radiography.

For further details contact: Exclusive Sale & Service Agents



# - TRADING COMPANY

Neelkanth, 98, Netaji Subhash Road, Bombay-2 \* Phone: 254667

Branches: DELHI • CALCUTTA • MADRAS • HYDERABAD



350

Vaidyaratnam P. S. Varier's

# ARYA VAIDYA SALA

KOTTAKKAL (Kerala State)

### Head Office Telephones-Kottakkal Exchange

Office with Extension to Manag	ging	Trustee 8	Mai	nager	Phone No. 31
Nursing Home					Phone No. 44
Chief Physician				13 1. (1)	Phone No. 25
Managing Trustee (Residence)			1		Phone No. 27
Manager (Residence)					Phone No. 26

Madras Branch:

No. I, Krishnamachari Road, NUNGUMBAKKAM — MADRAS 34 (Phone No. 811275).

Other Branches:

I. KOZHIKODE (Phone: 2155); 2. PALGHAT (Phone: 104); 3. PALGHAT Sales Depot (Phone: 584); 4. ALWAYE; 5. ERODE (Phone: 172); 6. TIRUR (Phone: 31); 7. ERNAKULAM (Phone: 33026); 8. TRIVAND-RUM (Phone: 3924)

AND OVER 100 AUTHORISED AGENCIES AND DEPOTS.

Genuine Standard Ayurvedic Medicines and expert medical advice available at our Head Office at Kottakkal and all Branches. Medical advice through correspondence given by our Chief Physician at Kottakkal. Special Treatments like Pizhichil, Navarakkizhi, etc., are conducted under the supervision of our Chief Physician

As our GOLDEN JUBILEE NURSING HOME, KOTTAKKAL Managing Trustee

DON'T REPEAT LAST YEAR'S SORRY

STATE OF AFFAIRS

BEFORE THE RAINS COME ENSURE PROPER PROTECTION



with

# MONSOON SHEDS

and forget about storage problems and damages on open land.

### EXPERT ERECTION SERVICES WITH HIRE AND SALE FACILITIES

- for \* INDUSTRIAL, CHEMICALS & PHARMACEUTICAL FACTORIES
  - **★** WARE-HOUSES & WORKSHOPS
  - \* PASSAGES, GARAGES, HOTELS, AUDITORIUMS & TERRACES, ETC.

DON'T PUT OFF TILL TOMORROW WHAT YOU MUST DO TODAY

Mfrs. 'ELEPHANT' BRAND

# **TARPAULINS**

CONTACT

# MORARJI PERAJ & CO. TALPATRIWALA

(BUILDERS AND CONTRACTORS)

138, Masjid Bunder Road, Next to Zakeria Masjid, Bombay-3.

Phones: 322352, 320326

Grams: 'Talpatri'

TARPAULINS AVAILABLE ON HIRE ALSO

Looking through Who's Who in Banking?

STOP RIGHT HERE!

BANK OF BARODA Services offered: Savings Account.
Current Account. Minors' Savings
Account. Recurring Deposit Account.
Fixed and Term Deposits. Safe
Deposit Locker. Travellers' Cheques.
Foreign Exchange Business.
Loans to Small Scale Industries.
Assistance to Agriculture. Safe
Custody of Shares and Securities.
Executor and Trustee Service.

Smaller services include: Collection. Encashment of Cheques. Remittances. Standing Instructions... and a Smile.



Thou shalt forever be prosperous with

# **Bank of Baroda**

Head Office: Mandvi, Baroda Over 400 branches in India and abroad

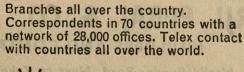
Shilni-BOB-8/70

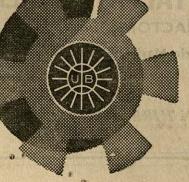
# WHERE THERE'S TRADE COMMERCE EXPORT INDUSTRY

# THERE IS UNION BANK

Union Bank helps traders and husinessmen by providing

Union Bank helps traders and businessmen by providing facilities for both industry and export. Helps the country earn valuable foreign exchange.





鱳

### UNION BANK OF INDIA

66/80 Apollo Street, Fort, Bombay 1. Telex 2297 & 2611.
Calcutta: Telex 228 • Madras: Telex 332 • New Delhi: Telex 311
Coimbatore: Telex 221 • Nagpur: Telex 213 • Kanpur: Telex 210
Hyderabad: Telex 270 • Bangalore: Telex 238 • Madurai: Telex 282
Ahmedabad: Telex 205 • Poona: Telex 237 • Lucknow: Telex 218
Gauhati: Telex 243 • Cochin: Telex 248 • Jamshedpur: Telex 214
Surat: Telex 212



# For those who consider design and quality

# before price

You've Got To HEAR IT To Believe



Manufactured in India by

3/A, SHANTINAGAR, YAKOLA, SANTACRUZ (EAST). BOMBAY .55. PHONE: 534438, 535992 GRAM: SOLID STATE





COVOX 1000 ACOUSTIC-SUSPENSION SPEAKERS POWER LOADING CAPACITY IO WATTS PRICE Rs. 130/- EACH

(PLUS ALL TAXES)

Adverts-CR-



### CO-30-60 WATTS PEAK

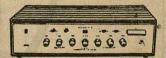
POWER OUTPUT PER CHANNEL 15 WATTS AT 5 ohms RMS. FREQUENCY RESPONSE 30 Hz TO 20000 Hz + 3dB.

PRICE Rs. 841/- (PLUS ALL TAXES)





COMBO (WITH 2 SPEAKERS) PRICE: Rs. 1600/- (PLUS ALL TAXES)



### CO-40-80 WATTS PEAK

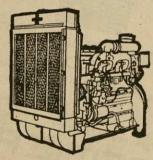
POWER OUTPUT PER CHANNEL 20 WATTS AT 4 ohms RMS. FREQUENCY RESPONSE 20 Hz TO 20000 Hz + 2dB. PRICE Rs. 1,205/- (PLUS ALL TAXES)

# Compact, punch-packed Cummins power moves Earthmoving Giants with ease

CUMMINS POWER brings a wide range of compact, powerful engines...60 to 400 HP... to match engine with equipment like Tractors, Bulldozers, Dumpers, Excavators...

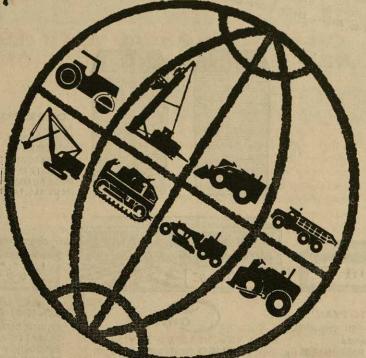
Featuring famous PT Fuel System, unmatched for low consumption, high torque performance, durability, backed by ample spares and countrywide service facilities, CUMMINS ENGINES are 'Dependable Diesels'.

CUMMINS is POWER... power for any application

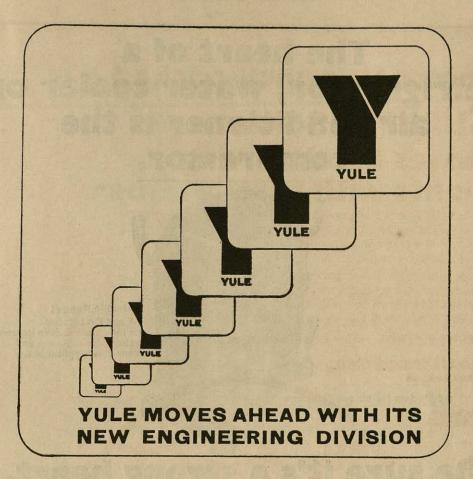


## KIRLOSKAR CUMMINS LIMITED KOTHRUD, POONA 4





Pratibha 693 KC



Yule's new Engineering Division equips several major industries with a wide range of machinery including the well known "Sirocco" and "P.E.W." products. In addition to the standard catalogue range which includes Rotorvanes, "Sirocco" tea processing equipment, sugar processing plant, "Sirocco" industrial fans and blowers, the Yule Engineering Division also manufacture river and coastal craft, specialised heavy castings and intricate fabrications. This new Yule Enterprise, with its specialised know-how, keeps pace with the country's expanding demand for custom built equipment. Some of the industries served are Power Stations, Cement Factories, Mines, Fertiliser and Chemical Plants, Sugar, Paper, Jute and Textile Mills, Tea, Food and Agriculture.

YULE ENGINEERING DIVISION



ANDREW YULE & CO. LTD. 8, Clive Row, Calcutta-1 XV

Bensons/3314

# The heart of a refrigerator, water cooler or air conditioner is the compressor.



Versatile Range!

AE and CAJ Models for refrigerators, deep freezers, water/bottle coolers... and many other-applications.

# Be sure it's a strong heart.

To ensure your appliance keeps going, ask for the unique KIRLOSKAR HERMETIC COMPRESSOR (made in collaboration with TECUMSEH PRODUCTS COMPANY, U.S.A.—the world's largest manufacturers of hermetic compressors).

### **4 UNIQUE FEATURES:**

- BETTER COOLING CAPACITY. Greater cooling power for faster, more efficient refrigerating performance.
- 觀 LOWER POWER CONSUMPTION. Special design features enable lower consumption of power, compared to other units of equal capacity.
- MOST COMPACT. Lightest, smallest compressor in the market. Easy to handle. Allows more storage space in refrigerators and coolers.
- QUIETEST. No other compressor can matchit for smooth, noiseless running.

Every compressor carries a one-year warranty. Efficient after-sales-service in all principal towns in India.

Manufactured by

### KIRLOSKAR BROTHERS LIMITED

Udyog Bhavan, Tilak Road, Poona 2. Works: Kirloskarvadi, Dist. Sangli (Maharashtra).

Under licence from

### **TECUMSEH PRODUCTS COMPANY**

Tecumseh, Michigan, U.S.A.

KIRLOSKAR compressor—the (heart) of the unit.

# PLAS-FAB PRIVATE LTD.

are sole selling agents in India

for

### "ROLLIN-MANEKLAL"

TEXTILE PRINTING RUBBER BLANKETS

— for modern printing manufactured for the first time in India

by

### T. MANEKLAL MANUFACTURING CO. LTD.

(Under licence from M/s. Etablissments Rollin, France)



# PLAS-FAB PRIVATE LTD.

Head Office:

'ADVENT', 7th Floor, 12A, General J. Bhosle Marg (Foreshore Road), Bombay I BR.

Telephones : { 214258 211016

Telegram : FILTERFAB

CALCUTTA OFFICE:

'KOHINOOR', Flat 5, 105, Park Street, Calcutta 16.

Telephone: 44-0460
• Telegram: FILTCLOTH

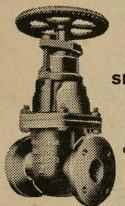
AHMEDABAD OFFICE :

Bank of Baroda Building (6th Floor), Fuwara, Gandhi Road, Post Box No. 323, Ahmedabad I.

Telegram: FILTERFAB

IN CONTROLLING THE FLOW

# KIRLOSKAR VALVES ENSURE IT.

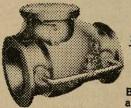


# KIRLOSKAR

### KIRLOSKAR **SLUICE VALVES:**

Strong enough to withstand specified water pressure. Sizes: 50 to 1200 mm. Can be supplied in different arrangements to suit varying conditions.

### KIRLOSKAR **REFLUX VALVES:**



To prevent 'water hammer' in long pipe lines. Sizes: 50 to 900 mm. Types: A: Door with Rubber face acting against Gunmetal ring in body. B: Bronze faced door acting against Bronze ring in body.

### KIRLOSKAR CAST STEEL **GATE VALVES:**

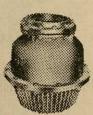
For chemical and oil refining industry to handle oil, water, steam, air or gas medium. Sizes: 50 to 300 mm.

### KIRLOSKAR **FOOT VALVES:**

For suction pipe lines. Sizes: 50 to 900 mm. Can be supplied in Screwed, Bore and Flanged types.

### **PULP VALVES:**

Sizes: 150 & 200 mm (6" & 8")





59/69

For more particulars please contact:

# SKAR BROTHERS LTD.,

Udyog Bhavan, Tilak Road, Poona-2.

# VERSATILITY

Kirloskar pumps have got it!



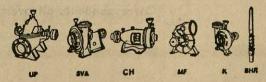
For over half a century we are manufacturing pumps with a wide range of applications. The tradition for quality and the experience of pioneers blended with the latest knowhow go in every part of Kirloskar pump.

# Pumps with a wide range of applications

- Irrigation \* Sprinkler Schemes \* Water works
- Booster Service
   Sewage
   Drainage
- \* Sandy water \* Storm water \* Fire Fighting
- Mines \* Processing plants \* Chemical Industry
- \* Sugar Industry \* Viscous liquids \* Paper stock
- Refineries \* Dairies \* Distilleries
- · Fertilizer Industry.

Kirloskar

KIRLOSKAR BROTHERS LTD., Udyog Bhavan, Tilak Road, Poona-2



### CHEMICALS LIMITED THE TRAVANCORE-COCHIN

(A Kerala Government Managed Undertaking)

Udyogamandal (P.O.) Alwaye, Kerala

Grams : TIYEMSEE, Udyogamandal.

Telephone: Cochin 30281.

Authorised Capital Rs. 250 lakhs and Paid-up Capital Rs. 229 lakhs Date of commissioning: December, 1952.

The first factory in India to produce Rayon-Grade Caustic Soda, Sodium Hydrosulphite and Iron-free Sodium Sulphide.

The designed daily capacity of the factory is 100 tonnes of Caustic Soda, 10 tonnes of Sodium Hydrosulphite, 4 tonnes of Sodium Sulphide, 180 tonnes of Commercial Hydrochloric Acid and 30 tonnes of Liquid Chlorine. Distributes products throughout India.

T.C.C. is one of the largest Chemical factories in the country employing 1046 persons. An expansion programme is envisaged during the Fourth Five Year Plan.

N. Chandrabhanu, I.A.S.

Managing Director: R. Ramachandran Nair, I.A.S.

Directors:

M. K. K. Nayar, I.A.S.

S. Narayana Swamy, I.A.S.

Dr. Venkitanarayanan, I.A.S.

S. Venkitaraman.

K. Sreenivasa Karayalar.

General Superintendent : A. Sreekantan Nair.

Finance Manager:

K. R. Varma.

Marketing Manager:

K. P. Menon.

Personnel Manager:

K. P. Panikker.

Secretary:

M. V. Joseph.

Public Relations Officer: G. P. C. Nayar.

# BANK OF MAHARASHTRA

Head Office: 1177, BUDHWAR PETH, POONA-2.

More than 185 Branches in Maharashtra, Madhya Pradesh, Gujarat, Goa, Mysore and Delhi. Complete range of Banking Service, including FOREIGN EXCHANGE, offered.

Grams: "MAHABANK"

Telephone: 54341

Working Funds exceed Rs. 120 crores.

Correspondents all over the World.

C. V. Joag Custodian.

# STARIT

While the role of water in industry is less important than its role in the lives of human beings, where it is indispensable, it is both ironic and fortunate that industry, not the biologic man, requires the chemically purer water. Virtually every industry, in some way, requires or could benefit from properly treated water to serve as a solvent, cleaning medium, heat exchange agent, ingredient or catalyst.

Hard water or water suffering from any one of a host of defects can affect industrial survival.

STARIT plays a big role in the purification of water the chemical way. STARIT water treatment plants are treating about 5 MGD water for almost every industry.

## THE STARIT ENGINEERING CO. PVT. LTD.

Regd. Office: Mahalaxmi Chambers, Bhulabhai Desai Road, Bombay-26.

Phone: 367798-9. Telex: 011-3286. Gram: "ORIBIRD".

Branches: 47, N.D.S.E. (I), New Delhi-49.

Phone: 624872. Telex: 031-399.

Gram: "ORIBIRD".

M-24, Kidwai Nagar, Kanpur-11.

Phone: 69500. Gram: "ORIBIRD".

Agents for South India

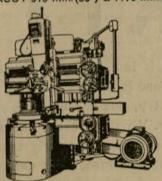
BEST & CO. (P.) LTD., Madras.

Beach Road, Madras-I.

Phone: 29131. Telex: 041-386. Gram: "BEST".

### KIRLOSKAR VERTICAL TURRET LATHES

DYNACUT 915 mm. (36") & 1170 mm. (46")



Designed by world-famous BULLARD, U.S.A. and built by KIRLOSKAR, these lathes are widely used by the Railways, Foundries and other heavy industries.

Rigid construction ensures maximum stability during operation — for the highest degree of accuracy!

- \* Hydraulic clutch and brake
- \* Hydraulic speed control
- · Powerful chuck
- \* Table supported on radial taper roller and thrust bearings
- \* Completely automatic lubrication system

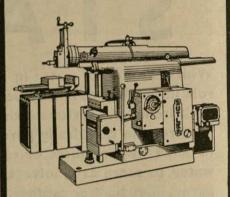
Machines can be equipped with POWER CHUCKING and POWER INDEXING.

Maximum turning dia.: 990 mm. and 1245 mm.

Table speed:

8-300 rpm and 6.83-250 rpm

# 26" SUPER SHAPERS



Manufactured under licence from BUTLER MACHINE TOOL CO. LTD., U.K. Designed for semi-heavy and medium industries, these modern shapers have advanced features that ensure exceptional efficiency and economy.

- \* Smooth running at all speeds
  - \* Greatly increased bearing surface
    - \* Max. length of stroke: 660 mm. (26")
      - · Power traverse to table
        - Power vertical down feed in tool box
        - \* Feed rate can be changed in motion or rest
        - Patented link motion design features 2 steel rods
      - \* Ram can be adjusted in motion or rest
    - · Automatic tool lifting

Give your factory a production boost with

KIRLOSKAR

MACHINE TOOLS

for Heavy, Medium & Light Industries

### KIRLOSKAR PLANERS

\* Lasting accuracy \* Trouble-free running \* Long life

4a SPIRAL ELECTRIC PLANER

Admits between columns. 1220 mm. (width) 1220 mm. (height) 1220 mm. (beight) 3048 or 3600 mm. Drive to table Ward Leonard Set of 35 hp.

36" OPENSIDE CRANK PLANER

Planing length 915 mm,
Planing width 584 mm,
Admits under cross-slide 610 mm.

Manufactured by KIRLOSKAR in technical collaboration with BUTLER MACHINE TOOL CO. LTD., U.K. These planers are specially designed for semi-heavy and medium industries.

### KIRLOSKAR 25 mm. DRILLING MACHINE

Pillar Type

**Drilling** capacity

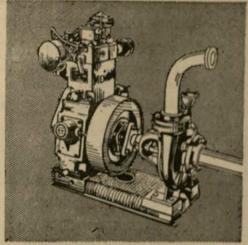
25 mm. (steel) 32 mm. (cast iron)

This KIRLOSKAR Drilling Machine has proved its exceptional rigidity and accuracy in workshops all over the country. Designed for versatility, it meets the most exacting demands for many jobs of different shapes, sizes and materials.

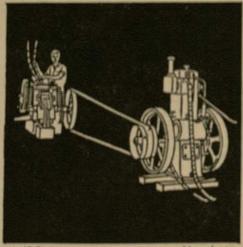
For full particulars, please write to:

### KIRLOSKAR BROTHERS LTD.

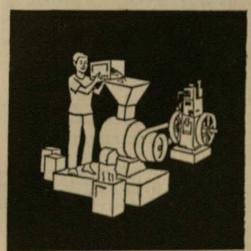
Udyog Bhavan, Tilak Road, Poona 9.



5 HP Engine as pumping set



6 HP Engine operating sugar cane crushing plant



o HP Engine operating a flour mill



5 HP Engine in a concrete mixer

# menon

**DIESEL ENGINES\*** 

6 H.P.-5 H.P.- 3 H.P., (VERTICAL TYPE)

low running cost: operates on diesel oil; keeps re-using lubricating oil

low maintenance expenses; less wear and tear longer life

guaranteed after-sale service

Available in stationary and portable (light weight) models.

Govern Dill deliver

· Government approved

menon
DIESEL ENGINES.
deliver the power for prosperity

Menon & Menon Private Ltd.

VIKRAMNAGAR, KOLHAPUR 3.

RANJIT-MM-H

### **ABRASIVES**

### IOHN OAKEY & MOHAN LTD.

Mohan Nagar (Ghaziabad).

Manufacturers of: OAKEY'S WELLINGTON head flint, Emery, Silicon Carbide Waterproof Abrasive Papers, Emery Cloth, Tapes, Endless Belts, Discs both Glue and Resin Bonded; Sole Distributors: Trade Links Private Ltd., 13 B/4, Uttri Marg, Old Rajinder Nagar, New Delhi-5.

Phone: 585468.

Grams: "DRINKS".

### **ABRASIVES**

### SHEVAROY PVT. LTD.

C-204, Defence Colony, New Delhi-3.

The Pioneer Manufacturers of: 'Aliorx' emery in grain and powder form; Factory: Yercaud P.O., Salem Dist., Tamil Nadu; Phones: Yercaud: 35, Delhi: 624632.

### ABRASIVES AND ASBESTOS

### MODERN MACHINE TOOLS CO.

88, Nagdevi Cross Lane, Bombay-3(BR). Grams: 
'MONKEYGRIP'; Phone: 322456. Authorised Stockists: Grindwell Emery Wheels and Bonded Products—all types. Also Stockists for: Jawan brand Emery Cloth, Waterproof Paper, Emery Tape and other coated abrasives. Diamond and Huntington type Wheel Dressers. Authorised Stockists for: 
'TURNER' Asbestos Materials.

# ABRASIVES & GRINDING WHEELS M. DESAI & CO.,

163, Narayan Dhuru Street, Bombay 3.

Authorised Dealers of: Bonded & Coated Abrasives by Carbo Uni. Ltd., Grinding Wheels of all types Emery, Aloxite & Silicon Carbide Paper & Cloth in Sheets. Rolls. Belts & Discs etc.

Phone: 323248.

Grams: "EMDESAICO".

### ABRASIVES & GRINDING WHEELS

### ABRASIVE PRODUCTS OF INDIA

14, Ismail Building, Flora Fountain, Bombay I.

Grams: 'DILINOL'.

Phones: 253488/299343

Manufacturers & Stockists of :—
Grinding & Cutting-off Wheels, Segments and
Allied Products.

### ABRASIVES & GRINDING WHEELS

### CHANDRAKANT SHAH & CO.

3, Narayan Dhuru Cross Lane, Bombay-3.

Authorised Dealers of Coated and Bonded Abrasives made by Carborundum Universal Ltd., Grinding Wheels of all Varieties, Sticks, Stones, Bricks, Valve Grinding Compound, Emery Cloth, Sand Papers, Waterproof Ab. Papers, Belts, Rolls, Discs etc.

Phones: 326958, 323648.

Branch: 1483, Laheripura New Road, Baroda I.

### ABRASIVES & GRINDING WHEELS

### ABRAWHEEL PRIVATE LTD.

Stockists & Dealers in Abrasives of all types.

Sole Distributors for: Coated Abrasives made by Messrs. JOHN OAKEY & MOHAN LTD., for the States of Maharashtra & Gujarat.

Regd. Stockists for: Grinding wheels etc. and Carbide tips & Tools.

Managing Director: Mr. P. G. Desai. 107, Sarang Street, Bombay 3.

Phone: 323214. G

Gram : "WHEELABRA ".

### ACCOUNTS & EXERCISE BOOKS MFRS.

### CRYSTAL STATIONERY MART

146, Abdul Rehman Street, Bombay 3.

Manufacturers of: Exercise and Account Books and other Stationery.

Phone: 324461.

Grams: "CRISMART".

### ACIDS, CHEMICALS, ETC.

### \*NAVSARI OIL PRODUCTS PVT. LTD.

Factory & Head Office: Navsari.

Bombay Office : Mehta House, Apollo Street, Bombay I.

Phone: 258479

Leading Manufacturers and Suppliers of Stearic Acid, Oleic Acid, Glycerine, Metallic Stearates, Fatty Acids in both distilled and undistilled grades, Wire Drawing Lubricants, Nickel Catalyst for Oil hydrogenation and Hardened Oil, Hardened Tallow and Glycerine-monostearate.

### **ADHESIVES**

Multipurpose Adhesive; Can Sealing Compounds (Food Grade) (For Can Manufacturers); Boat Paint (Anti Microb), (Bottom Paint for Vessels); Carpet Backing Compound (For Carpet Manufacturers); Han's the Cobbler Shoe Adhesive; Sound Deadner (Anti Rust-Anti Corrosive Compound); Spray Sol (Rust Neutralising Agent for direct paint application); Metal (Aluminium foil) to paper Adhesive. Fan Belts. Cycle Tube Puncture Repair Solution; Cycle Valve Tubing, Cycle Tube Patch Rolls.

Contact: RUBBER ADHESIVE MANUFACTURERS

190, Princess Street, Bombay 2. Phones: 317128 & 315156.

### **ADHESIVES**

15 Grades of Synthetic Adhesives for glass, leather, metals, PVC, plastics etc. Also pressure sensitive types of PVC Stickers, insulation tapes.

### CHEMISOL INDUSTRIES

41, Princess Street, Bombay 2. Phones: 319086 & 312732.

ADDING & CALCULATING MACHINES

### GANESAN PVT. LTD., P. N.

Comptometer Duplex and Victor Adding, Calculating Machines and Ganesan Weber Addressing Machines.

7, Judge Jumbulinga Mudaliar Road,

Mylapore, Madras 4.

# ADVERTISING AGENTS & CONSULTANTS RATAN BATRA PVT. LTD.

(Estd. 1936)

Accredited by the Indian & Eastern Newspaper Society and All India Radio — Commercial Broadcasting Services; Member of Advertising Agencies Association of India, Society of Advertising Practitioners and Audit Bureau of Circulations Ltd.

Regd. Office: Ilaco House, Sir Phirozshah Mehta Road, Bombay I. Phone: 262747. Contact and Service Departments: Gool Manor, Colaba, Bombay 5 BR.

Phones: 211026, 211027 & 211028.

### ADVERTISING AGENTS & CONSULTANTS

### PRATIBHA ADVERTISING

Advertising Agents & Consultants

Poona Office: "Cosmos", Prabhat Road, Poona-4

Phone: 55670. Grams: "PRADVERT".

Telex No. 014-277.

Offices at: Bangalore, Bombay and New Delhi.

### ADVERTISING AGENTS & CONSULTANTS

### NATIONAL PUBLICITY SERVICE

A-6, Connaught Place, P.O. Box 94, New Delhi-I. Phones: 42814-48549.

An organisation for complete advertising; Serving Industrialists of National & International repute for over 20 years; Accredited by The Indian & Eastern Newspaper Society; The Directorate of Advertising & Visual Publicity, Government of India; The Indian Railways; The A.I.R. Commercial Broadcasting Service; Member: Audit Bureau of Circulations Ltd., Advertising Agencies Association of India.

### ADVERTISING AGENTS & CONSULTANTS

# RANJIT SALES & PUBLICITY PVT.

111-A, Mahatma Gandhi Road, Fort, Bombay 1. (Advertising Service Agents).

Phone: 253126. Grams: "RANJITSALE".

Branches: 32, Metcalfe Street, Calcutta-13.

Phone: 234253. Grams: "RANJITAD(C)".
60/2, Janpath, New Delhi.

Phone: 48876. Grams: "RANJITADY".

# ADVERTISING AGENTS & CONSULTANTS RASIK PUBLICITY CO.

7/9, Bell Lane, Fort, Bombay I.

Accredited by Indian & Eastern Newspaper Society, New Delhi and All India Radio Commercial Broadcasting, Member of Advertising Agencies Association of India, Bombay and Railways' Advertising Canvassers and Agents Association of India, Bombay. Contact for any of your Advertising needs in Newspapers, Railways, Radio Announcing, Cine Slides & Shorts, Hoardings etc.

Phones: Office: 256529-256630. Residence: 372132.

Grams: "RASIKPUBCO."

### **ADVERTISING AGENTS & CONSULTANTS**

### GOLCHHA ADVERTISING AGENCY

(Estd. 1940)

Museum Road, Civil Lines, Nagpur-I.

Leading Hoarding Contractors.

Phone: 31261.

Grams: "GOLCHHACO".

ADVERTISING AGENTS & CONSULTANTS



### **ADVERTISING AGENTS & CONSULTANTS**

### TOM & BAY (Advertising) PVT. LTD.

Regd. Office: Joshi Estates, 658, J. M. Road, Poona-4.
Phone: 54221/22. Grams: "ALAMODE".

Managing Director: G. V. Tambe.

Branch Office:

Hashim Building, 3rd Floor, 40, Veer Nariman Road, Bombay-1 (BR).

Phone: 253068. Chief Executive, D. K. Sonalkar.

### ADVERTISING AGENTS AND CONSULTANTS

# L. A. STRONACH & CO., (INDIA) PVT., LTD.

15, Graham Road, Ballard Estate

Phone: 26-3236.

Established: 1923.

Associates throughout the world.

### ADVERTISING AGENTS & CONSULTANTS

### PARAMOUNT PUBLICITIES

96-A, Mount Road, Teynampet, Madras 18.

Specialists in: Newspaper Publicity all over India and abroad; Fully equipped to provide complete advertising Services; Recognised by Newspapers all over India. Consult, for anything and everthing in advertising. Phones: 443509, 443629, Madras 18.

### ADVERTISING AGENTS & CONSULTANTS

# ADVERTISING & SALES PROMOTION CO.

Steelcrete House, Dinsha Vachha Road, Bombay I.

Phone Nos. 295512 & 295482. Grams: "SALESAID."

Head Office at Calcutta.

Branches at Bangalore & New Delhi.

### ADVERTISING GIFTS & NOVELTIES

For Advertising Gifts with an exclusive touch
PLUCK & CO.

Block No. 22, 3rd Floor, Prabhadevi Industrial Estate, Vir Savarkar Marg (Cadel Road), Post Box No. 9105, Bombay-25.

Phone: 452647.

Grams : "INTERSEAS."

# ADVERTISING GIFTS & NOVELTIES STOESSEL, W. R., & CO.

Bombay-1.

Tel. Address: "Entireness." Phone Nos. 291084/35.

Designers and Manufacturers of:

STOESSEL Advertising Specialities for Desk and Pocket use in Leather, Plastics, Metal and Wood.

Sole Agents for:
THE COTTON TRADE JOURNAL
(Memphis, U.S.A.)
Publishers in India for:

The Association of Mouth and Foot Painting Artists— Greeting Cards and Calendars.

### ADVERTISING & PUBLICITY AGENTS

# NEWFIELDS ADVERTISING PVT. LTD.

3/4-A. Asaf Ali Road, New Delhi I.

Fully Accredited Advertising Agents and Publicity Consultants with Connections all over the World; Member A.B.C., A.A.A.I., I.E.N.S., Government of India Panel and International Markets Advertising.

### ADVERTISING & PUBLICITY AGENTS

### INTERADS ADVERTISING PVT. LTD.

4/24-A, Asaf Ali Road, New Delhi-I.

On the Government of India Panel, Fully recognised. Planned Advertising with up-to-date Media Selection & Marketing Research Depts. Also at Bombay, Calcutta, Madras, Jullundur, London, Beirut and Tehran Associates all over the world.

Phones: 272324 & 272325.

### ADVERTISING GIFTS & NOVELTIES

### MARF & COMPANY

Remembrance Advertising

Manufacturers of: Diaries, Wallets, Table Pads, and all other Advertising Media in Plastic, Rexine, Leather & Metal

362, V. P. Road, Bombay 4.

Phone: 353222. Grams: "ARMORIDE."

### AERATED WATER MFRS.

### PURE DRINKS PRIVATE LIMITED

Authorised Bottlers of: Coca-Cola & Fanta Orange.

Manufacturers of: SODA SPECIAL.

Address: Worli Naka, Bombay 18.

Telephones: 373585-6.

Telegraphic Address: "PUREDRINKS."

General Manager: Mr. Charles Singh.

### AERATED WATER MFRS.

# TURF AERATED WATERS PRIVATE LTD.

69, Tardeo Road, Bombay 34.

Phone: 377832.

Manufacturers of High Class Aerated Waters.

### AFRATED WATER MFRS.

# PREMIER AERATED WATERS PRIVATE LIMITED

Manufacturers of: High Class Aerated Waters and Soft Drinks.

Office & Factory: Near Nair Hospital, Lamington Road (North), Bombay 8.

Managing Director: Mr. B. D. Motafram. Phones: Office: 374282; Res.: 378622.

### AERATED WATER MANUFACTURERS

### DUKE & SONS (PVT.) LTD.

(Estd. 1889)

### CHEMBUR, BOMBAY 71

Phones: 351347 & 524516

Manufacturers of Aerated Waters and Fruit Drinks
"MANGOLA", "PINEOLA" and "Nu ORANGE"
Made from Fresh Fruit Juices. Bottles washed, syruped,
filled and crowned by completely automatic machinery
thereby ensuring absolute purity and cleanliness.

UNTOUCHED BY HAND

# AERATED WATER MACHINERY & REQUISITES ESOOFALY MAHOMEDALY & CO.

Dealers in: - Aerated Water Requisites.

Sole Selling Agents:

INDIAN CARBON DIOXIDE INDUSTRIES (Bombay-Madras).

Head Office: 102/4, Sarang Street, Bombay 3.

Grams: "PURIFIED." Phone: 326516. Branches: 12, Walltax Road, Madras 3.

Phone: 334400. Grams: "HARMLESS."
13-11-233, Convent Street, Park Road, Vijayavada-1.
Phone: 1004. Grams: "PURIFIED".

Also at: Shivaji Road, Kolhapur.

### **AERATED WATER MACHINERY & REQUISITES**

### T. ALIMAHOMED & CO.

(Estd. 1924)

Stockists of all Sorts of Essences & other Baking Requisites.

144-46, Sarang Street, Bombay 3.

Sole Agents for Diamond Aerating Gas Works Ltd., Bombay 3.

Phone: 327131.

Grams: "AERATORS".

### AGARBATHIES MFRS.

### B. V. ASWATHIAH & BROS.

(Regd.)

(Estd. 1936)

Manufacturers & Exporters of quality Agarbathies.

Address: 183, Nagarthpet, Bangalore 2.

Phone { Office : 24363. Factory : 29396.

Grams: "NALNIBATHI ".

AGENTS & GEN. MERCHANTS

### HARSHADRAY PRIVATE LIMITED

Merchants, Engineers & Agents.

Head Office: Jiji House, Raveline Street, Bombay I.
Phone: 266281 (4 lines). Grams: "FACTORIND".
Factory: Stainless Steel Division, Pandit Jawaharlal
Nehru Road, Santa Cruz, Bombay 55.

Phone: 532432.

### AIR & HYDRAULIC EQUIPMENT

# VEL JAN-HYDRAIR PRIVATE LIMITED

Balanagar, Hyderabad-37.



Manufacturers of:

Air & Hydraulic Cylinders, Control Valves including Solenoid operated. Air Bench Presses, Linear Air Motors, Air Filters, Regulators & Lubricators.

### AIRCONDITIONING AND REFRIGERATION

### AMERICAN REFRIGERATOR CO. LTD.

Refrigeration Airconditioning Engineers, Manufacturers of: Famous "ARCO" window type I ton and 1½ ton Airconditioners, Water Coolers/Refrigerators, Packaged Airconditioners, Water Heaters, Bottle Coolers, ARCO Bush Coils, Condensers, Chillers etc. Sole agents for: Electrolux Refrigerators and 'TRANE' Air conditioning and Refrigeration equipment in India, Sadhana Rayon House, Dr. D. N. Road, Bombay-I. Phone: 266073.

### AIR CONDITIONING & REFRIGERATION

### KIRLOSKAR BROTHERS LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona-2.

Works: Kirloskarvadi (Maharashtra) and Dewas (M.P.).

Manufacturers of: Pumps, Valves, Machine Tools, Hermatic Compressors & Farm Machinery.

Offices: Ahmedabad, Bangalore, Bhubaneswar, Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad.

Distributors: In all towns and cities.

### AIR CONDITIONING & REFRIGERATION ENGINEERS

### PREM NATH MOTORS PVT. LTD.

Scindia House, New Delhi.

Telephone No. 45891.

AIRTEMP ROOM AIRCONDITIONERS

Two sizes: I ton and I.5 ton

### AIR-CONDITIONING & REFRIGERATION ENGINEERS

### BOMBAY AMMONIA PRIVATE LTD.

Head Office:—298, Bazargate Street, Bombay.

Branch Offices at:—New Delhi, Madras & Calcutta.

Suppliers of Refrigeration & Air-conditioning Equipment for Cold Storages, Ice Plants & Central Air-conditioning Plants.

Phones: H.O. 257914, 257915. Telex, 011—3295

# AIR-CONDITIONING & REFRIGERATION EQUIPMENT

### CHATUR PARMANAND VASWANI

59. Forbes Street, Bombay 1.

For "COPELAND" Refrigeration and Airconditioning Machinery; Parts and Accessories like Copper Tubing, Brass & Copper Fittings, Valves and Controls, Tools Gas, etc.

Phone: 251340.

## AIR FREIGHT, CLEARING, FORWARDING & WAREHOUSING AGENTS

### IEENA & CO.

10, Veer Nariman Road, Bombay.

Air freight, Shipping, Clearing, Forwarding and Warehousing Agents. Correspondents everywhere.

Tel. Address: "JUSTITIA."

Phone: 258413. Post Box No. 849.

### ALUMINIUM

### **SWASTIKS**

8-B, Jindal Trust Bldg., Asaf Ali Road, New Delhi-1.

Authorised Distributors for: Indal extruded sections, Angles, Channels, Rods, Pipes, Square and Rectangular Tubes and other sections; also offer Sheets, Coils in Aluminium Show Room: Chawri Bazar, Delhi.

Phones: 271064 (New Delhi) 265576, 266429 (Delhi).

### **ALUMINIUM MFRS. & DEALERS**

### INDIAN ALUMINIUM CO., LIMITED

Manufacturers and dealers in Aluminium and its semifabricated products, viz. ingots, sheets, circles, extrusions, foil, rod, powder, paste and pyrotechnic powder; also alumina and carbon paste.

Bombay Sales Office: Air India Building, Nariman Point, Bombay-1.

Telex (011) 2530 INDAL BY

Telegram: "INDALUMIN" Telephone: 291819

Head Office: I, Middleton Street, Calcutta 16.

(Telephone: 44-2371)

### ALUMINIUM ARCHITECTURAL BUILDING PRODUCTS

### AUT INDIA PRIVATE LTD.

408, Himalaya House, Palton Road, Bombay 1.

Phone: 267221.

Grams: ALUGLAZE

Telex: 011-2802.

Doors, Windows, Partitions, Shop Fronts, Curtain Walling, Louvres, False Ceiling, Northlight Glazing and other architectural products manufactured with foreign collaboration incorporating latest techniques and designs.

Branches: Calcutta, Delhi, Madras, Hyderabad.

### ALUMINIUM FURNITURE MFRS.

Manufacturers:

### FEATHERLITE CORPORATION

(Props. : Ramnarayan Chellaram & Co.).

Manufacturers of : "FEATHERLITE"

Aluminium Furniture

Elegant — Durable — Portable 136, Mysore Road, Bangalore-26.

Phone: 29028.

Grams: "RAMGIR".

### **ALUMINIUM PASTE, PAINTS & MEDIUMS**

### STAR PAINT & OIL INDUSTRIES

Crescent Chambers, 56, Tamarind Lane, Fort, Bombay 1.

Manufacturers of: Industrial Paints, all kinds of Aluminium Pastes, Aluminium Paints and Mediums; Specialists in HEATEX Heat Resisting 600°C. Aluminium Paint.

Grams: "STARPAINT". Phones: 253493 & 297704.

### ALUMINIUM SHEETS, RODS, ETC.

### ATUL METAL CORPORATION

Available: "ALUCOIN" & "HINDALCO"
Products from ready Stock.

Stockists for: J. K. and Hindalco Products. 86, Kansara Chawl, Kalbadevi Road, Bombay-2 BR.

Office: 334816, 334408.

Phones:

Resi.: 353264. Grams: Factory: 375381. "SRADDHAWAN".

Godown: 370211.

### ALUMINIUM SHEETS, RODS, ETC.

### RAMESCHANDRA PRIVATE LTD.

235, Kika Street, Bombay 2.

Phones: 332478 & 333928; Grams: "METALHOUSE".

Aluminium Tagger Foil. Also Distributors of Indian Aluminium Company Limited, for Aluminium Extruded Sections such as Rods, Tubes, Flats, Mouldings, Trimmings & Architectural & Miscellaneous Sections. Also Stockists of Aluminium Sheets, Wires & Rivets and Copper Sheets, Wires, Rivets, Strips, Rods and Lightening Arresters etc.

### ANALYSTS (ANALYTICAL CHEMISTS)

# CHEM — MED ANALYTICAL LABORATORIES ANALYSTS

Chemical & Microbiological and Biological Analysis of Pharmaceuticals, including Pyrogens and Toxicity tests, Chemicals, Drugs, Oils, Ice Creams, Cosmetics, Foodstuffs, Minerals, Ores, Metal Alloys, Fertilisers, Insecticides and other consumer products.

Office: 27, Western India House, Sir P. M. Road, Bombay I.

Phone: 254307.

Laboratory: 5-6, Kakad Estate, Sea Face Road, Worli, Bombay 18. Phone: 377942.

### **ANALYSTS & SURVEYORS SAMPLERS**

### ITALAB PRIVATE LIMITED

Assayers, Samplers & Surveyors.

Head Office: 15, Cawasji Patel Street, Bombay I. Phones: 253882 & 253667. Grams: "ITALABO." Branch Laboratories at: Madras: 19, Govindappa Naicken Street; Calcutta: 10, Lall Bazar; Visakhapatnam: 20/119, Beach Road; Bellary: XIX/37, Ganesh Temple Street, Cowl Bazar, Bellary 2.

### ANTIFRICTION METALS

### EYRE SMELTING (PVT.) LTD.

Manufacturers of: "TANDEM" White Metals, "EYRE" Solders, "FRYOLUX" Solder Paint, Cored Solder Wire, "FRY'S" Printing Metals, Aluminium Alloys, Zinc Alloys, Soldering Fluxes, Galvanising Salts, Lining Compounds. Enquiries to:

The Eyre Smelting Private Ltd., 5, Hide Road, Calcutta 43 (45-6321).

### ARCHITECTS & BUILDERS

### VAZIFDAR BUILDERS PVT. LTD.

Designers, Builders & Promoters.

Address :

Corinthian, 17, Arthur Bunder Road, Colaba, Bombay 5.

Phone: 212557.

### ARCHITECTS & CIVIL ENGINEERS

### K. R. IRANI & CO.

Consulting Civil Engineers, Architects & Valuation Experts.

Office: 24, Dalal Street, Bombay I.

Partners: K. R. Irani, J. G. Bodhe, K. C. Master, R. K. Irani, Amar K. Master.

Phones: 255040, 256988 & 252557.

### AROMATIC CHEMICALS

Telegrams: "SUPRALUX" Telephone: 312623

### CALCUTTA ESSENCE SUPPLY CO:

Dealers in:

Essential Oils, Aromatic Chemicals & Perfumery Compounds.

Mulchand Mansion, Princess Street, BOMBAY 2.

Branch: 41, Ezra Street, Calcutta 1.
Phone: 341263

Grams: "SUGANDHI".

### xxxi

### AROMATIC CHEMICALS

### M. C. DAVAR & CO.

143, Princess Street, Bombay 2.

Phone: 315752.

Grams : " EMCIDAVAR ".

Importers & Stockists of: Aromatic Chemicals, Essential Oils & Perfumery Materials.

Agents for: GIVAUDAN DUBENDORF LTD. (Formerly Esrolko). Switzerland.

### AROMATIC CHEMICALS

### S. H. KELKAR & CO., PRIVATE LTD.

Manufacturers of:

Aromatic Chemicals & Perfumery Raw Material.

Office: 36, Mangaldas Road, Bombay 2.

Phone: 319130.

Factory: Near Balrajeshwar Temple, Agra Road.
Phones: 591713 & 592498.

Managing Director: Mr. V. G. Vage.

### AROMATIC CHEMICALS

# GOLDENSUN MANUFACTURING COMPANY

Distillers & Manufacturers of: Aromatic Chemicals, Highly Concentrated Fruit & Flower Essences, Essential Oils & Perfumed Compounds etc.

Sales Office: Mulchand Mansion, Princess Street,

Bombay 2.

Phone: 310093.

Office:

64C, Girgaum Road, Bombay 2.

Phone: 353058.

### AROMATIC CHEMICALS, ESSENTIAL OILS ETC.

### D. D. SHAH & CO.

Importers of Essential Oils, Aromatic Chemicals & Resinoids.

Damodar Bldg., 105, Princess Street, Bombay 2.

Phone: 312055. Cables: "FORENOON."

### ASBESTOS GOODS

### BABULAL & BROS. 323

Authorised Stockists for Ms. Hindustan Ferodo Ltd.
Also Stockists of: Engineering Stores, Hardwares,
Precision Tools, Metal Cutting Tools, Coated & Bonded
Abrasives, Pipes & Fittings, A bestos Goods, Vulcanised Fibre Sheets, Neoprene Rubber Sheets.

26, Nagdevi Cross Lane, Bombay 3.

Phone: 323930.

Grams : "FIREFLY ".

### ASBESTOS PACKINGS AND JOINTINGS

Contact:

### HIRALAL GOKALDAS DALAL & CO.

(Estd. 1910).

45, Nagdevi Cross Lane, Bombay-3 BR.

Phone: 321594.

Grams: "HIRAGOCUL."

Importers & Dealers of Mill Gin Stores, Engineering
Hardware, Tools etc.

### **AUTOMOBILE BULBS**

### SUNDER & KAPOOR

107-108, Commerce House, Medows Street, Bombay-I Manufacturers of: "SUNKAP" & "UNION" Auto Bulbs.

Phones: 256548 & 259352.

### **AUTOMOBILE & RADIO SPECIALISTS**

### J. V. MEHTA & CO.

Automobile and Radio Specialists, Opera House, Bombay 4.

Phone Nos. 352631/32

Partner Res.: 354178. Grams:

Grams: "JEVIMEHTA".

### AUTOMOBILE PARTS & ACCESSORIES

### IAFFERBHAI & COMPANY

Dealers in :

Motor & Bus Body Fittings, Hood & Cushion Materials, Motor Accessories, Foam Rubber, Aluminium & Rubber Sections, etc.

106-108, Ibrahim Rahimtulla Road, Bombay 3.

Phone: 333324.

Grams: "NECESSITY ".

### **AUTOMOBILE PARTS & ACCESSORIES**

### UNITED ENGINEERING WORKS

Manufacturers & Exporters:—Cylinder Liners (Sleeves), V. Seat Bars.

Ramkumar Mills Compound, Saraspur, Ahmedabad 18.

Phone: 26131

Grams: "AUTOLINE".

### AUTOMOBILE PARTS MANUFACTURERS

### SIYARAM, KUMAR ENGINEERING WORKS PVT. LTD.

20B, Najafgarh Road, New Delhi-15. Phone: 563931.

Manufacturers of Automobiles, Hydraulic Equipment and parts for Tractors and Machinery Parts.

> Managing Director: J. V. Gupta. Tech. Director: M. Kumar.

### AUTOMOBILE PARTS MFRS.

### NEW HAVEN ENGINEERING COMPANY PRIVATE LTD.

Manufacturers of: Automobile Parts, Machinery Spares, Bright Polished Bolts & Nuts, Socket Head Cap Screws, Precision Turned Automatic Parts, etc. Office:

Nanjee Building, 17-B, Horniman Circle, Bombay I. Phone: 257616.

Factory: Parsi Panchayat Road, Andheri (East), Bombay 69.

Phone: 573039.

AUTOMOBILE PARTS MFRS.

Manufacturers of : SHOCK ABSORBERS

Head Office & Factory: Agra Road, Mulund, Bombay-80.

Telephones: 594111 (6 lines), 591751, 591728 Telegrams: "GABRIEL", Bombay-Mulund.

Managing Director's Office: Magnet House, Dougall Road, Ballard Estate, Bombay I.

### AUTOMOBILE PARTS MFRS. **AUTOMOBILE ANCILLARIES OF** INDIA PRIVATE LTD.

Manufacturers of: "Matchless" Radiators, Cores and Heat Exchangers for Automobile, Industrial & Agricultural Engines.

Suppliers to the Ministry of Defence, Premier Automobiles, Bajaj Tempo Ltd., Jessops, Kirloskar Engines, Mahindra & Mahindra Ltd. and Industrial & Agricultural Engines Manufacturers.

Office & Factory:—31, Kandivli Industrial Estate, Kandivli (West), M. G. Road, Bombay 67. Phones: 693261 & 693262.

Grams: "CLEARTUBE", Kandivli, Bombay-67;
"CLEARTUBE", Bombay-1.
Managing Directors:—Mr. K. B. Patel, Mr. H. V. Patel.

### AUTOMOBILE PARTS MANUFACTURERS INWENTERS AUTOMOBILE DIVISION & INDIAN WATCH ENTERPRISES

Factory: J. B. Nagar, Andheri-Kurla Road, Bombay 59.

Phone: 572244.
Office: 11/43, Tamarind Lane, Fort, Bombay-1. Phone: 252174.

Manufacturers of: Clutch lever repair kits and components thereof for T.M.B. Trucks, Dodgekew, Dodge Timken axle, Dodge Fargo, Bedford J-4 Trucks, Willys Jeeps-Civilian and Military and also for Cars: Ambassador, Landmaster, Fiat, Hillman, Morris, etc. Gear Shaft Washers of Dodgekew trucks and Needle Rollers of all descriptions for automobile line and worm follower kits for Dodgekew and Mercedes Benz Trucks. Trade Mark "INWENTER-IAD".

### AUTOMOBILES, AUTOMOBILE PARTS

### AUTO CHENOY

62/D, Sarojini Devi Road, Secunderabad.

Phone: 74836. Gram: "AUTOCHENOY".

Automobile Engineers, Dealers & Parts Suppliers.

Sole Distributors for STANDARD & TRIUMPH CARS in old Hyderabad State.

Specialists in repairing of cars of all makes.

## AUTOMOBILES, AUTOMOBILE PARTS & ACCESSORIES

## P. G. VIRGINCAR & CO.

Post Box 38 MARGAO, GOA

Automobile Dealers in:—Fiat & Plymouth Cars, Fargo Trucks, Bajaj-Tempo 3 & 4 Wheelers, Spare Parts, Tyres, Batteries. Importers:—GM Parts for Chevrolet & Opal Vehicles; Burmah-Shell Service Station and Petrol Pumps at Margao and Mapuca, Vespa Scooter Parts & Airtemp Room Airconditioners.

Phone: 257/534. Grams: "PAPAUM."

AUTOMOBILES, AUTOMOBILE PARTS & ACCESSORIES

## NARCINVA DAMODAR NAIK

Margao & Ponda, Goa

Main Dealers for Goa:

# TATA ENGINEERING & LOCOMOTIVE CO. LTD.

Automobile Division, Jamshedpur.

Importers of: Genuine Mercedes-Benz Parts.

AUTOMOBILE PARTS & ACCESSORIES (MFRS. & DEALERS)



## **RADIATORS**

FUEL & OIL FLEX-HOSES
HIGH PRESSURE HOSES, BRAKE HOSES

Sole Selling Agents:

## THE STANDARD GARAGE

Modi Chambers, Bombay 4.

Cables: "ACCESSORIES". Phones: 359232 & 359233

AUTOMOBILE PARTS & ACCESSORIES MFRS. & DEALERS

## GLOBE AUTO ELECTRICALS LTD.

Mulund, Bombay-80.

Magneti Marelli Products: Ignition Coils, Wiper Motors, Distributors, Regulators, Ignition Switches, Prestolite Products: Alternators, Dynamos, Starting Motors.

#### AUTOMOBILE SPARE PARTS

## NORTHERN INDIA MOTOR CO.

M-10, Connaught Circus, New Delhi-1.

Importers & Distributors of: Garage Tools, Genuine Spares for Ambassador, Fiat, Standard, Herald and Continental Cars; Agents: "GABRIEL" Shock Absorbers, STANDARD Batteries and CASTROL Lubricants.

Grams: "CORDRING".

Phones: 44725, 46205; Resi. 79134.

#### AYURVEDIC MEDICINES MFRS.

## DHOOTAPAPESHWAR INDUSTRIES LTD.

Business Office & Factory: Panvel, Dist. Kolaba.
Phone Nos. 216 & 217.

Registered Office:

135, Nanubhai Desai Road, Near Wilson High School, Bombay-4 B.R. Phone No. 355888.

Estd. 1872 A.D.

Pioneers and Leaders in Quality Ayurvedic Medicines. Sales Depots and Distributors in prominent cities and thousands of dealers all over India.

#### BADGES



## **BAKERS & CONFECTIONERS REQUISITES**

## WEIKFIELD BAKERS HOPPE MIX

A Boon for Bakers and Brewers. Completely replaces the imported HOPS in quality and is very economically priced too

Available in 400 grams packets, manufactured for the first time in India by :

# WEIKFIELD PRODUCTS CO. (INDIA), UNIT 3

Weikfield Estate, Poona-14 (INDIA).

#### **BALL & ROLLER BEARINGS**

## MASRANI MILLGIN STORES

46, Nagdevi Cross Lane, Bombay 3.

Direct Importers & Stockists of Ball, Roller & Taper Roller Bearings. Specialists in Steel Balls.

Phone: 321646 (Office). Grams: "BEARINGS". 476725 (Res.).

# BALL & ROLLER BEARINGS SUESSEN TEXTILE BEARINGS LTD.

Manufacturers of:

TEXTILE BEARINGS & PRESSED PRODUCTS.

Bombay-Ahmedabad National Highway No. 8,

Baroda-9.

Phone: 3869.

Grams: "SUESSENTEX".

Head Sales Office :

Tiecicon House, Dr. E. Moses Road, Bombay 11.

Phone: 371901.

Grams: "SUESSENTEX".

#### **BALL & ROLLER BEARINGS**

## RAJNIKANT & CO.

Stockist of everything in Ball, Roller, Thrust Bearing, Steel Balls and Pedestals; Authorised Stockists of BBL and NORMA Bearings. Distributors IBC Bearings. 17, Bibijan Street, Post Bag No. 3347, Bombay-3 BR.

Phone: 329219, 325731. Grams: 'ROWBEARING'.

#### **BALL & ROLLER BEARINGS**

## DHIRAJLAL & CO.

15, New Queen's Road, Bombay 4.

Phones: 354412-352058. (Resi.) 473703.

Grams : " RICEMILL ".

Sole Distributors for :

Torrington and Steyr Bearings in India.

## **BALL & ROLLER BEARINGS**

# BOMBAY BALL BEARING SUPPLYING CO.

349/353, Samuel Street, Bombay-3.

Phone: 321151.

Grams: "GOLABADAM."

Stockists of all kinds of Ball, Roller and Tapered Roller Bearings, Automobile Bearings our Speciality; Also available Bearings at S.T.C's controlled prices.

## BALL, ROLLER BEARINGS & BELT FASTNERS

## MODERN MACHINE TOOLS CO.

88, Nagdevi Cross Lane, Bombay-3. Phone: 322456.
Grams: 'MONKEYGRIP', MERCER 4040 Dubi
Bearings, MERCER Sleeve Nuts, NSK/MERCER
Plummer Blocks—ALBERT Oval, Double Plate,
Conveyor, Harris type, Walker type and Button
Fastners — AMETEEP Alligator type Belt Lacings —
Carded Belt Hooks.

## **BALL & ROLLER BEARINGS**

## PURUSHOTTAM SOMABHAI & CO.

Stockists of :-

Ball & Roller-Bearings of all types & makes

Authorised Distributors of :-

SKF Bearings

36, Sarang Street, Bombay 3.

Grams: 'FORESIGHT'

Phone: 326252.

## BALL & ROLLER BEARINGS

On Approved List of Government & Railways

## SHETH STORES TRADING CO.

Specialists in:—Ball & Roller Bearings.

Authorised Stockists in: SKF, NBC, NORMA Bearings.

Distributors: ARUN & ASHOK Plummer-blocks

Ahmedabad Office: Deepak Chambers, Station Road, Ahmedabad.

Phone: 23470 Grams ? "LUCID"

Bombay Office: 238, Masjid Bunder Road, Bombay 3. Phone: 322757. Grams: "TROLLEY".

#### BALL & ROLLER BEARINGS



MERCER Thrust Bearings and MERCER

**Dubi Bearings** 



## Manufacturers: **DEEPAK INDUSTRIES**

26B, Udyognagar, Rajkot-2. Trade Inquiries MERCER MACHINE TOOLS AGENCY 63-69, Nagdevi Cross Lane, Bombay-3. Phone: C/o 322456. Grams: C/o "MONKEYGRIP".

#### BALL & ROLLER & TAPER ROLLER BEARINGS

## SHAH BROTHERS

524. Sandhurst Road. Bombay 4.

Phones: 352508, 351653,

Grams: "TAPEROLLER".

Importers & Stockists of Ball, Roller & Taper Roller Bearings.

#### BANKS

## THE MITSUI BANK, LIMITED

(Incorporated in Japan) (Liabilities of Shareholders Limited) Paid-up Capital Yen 28,000,000,000

Head Office: No. 12, Yurakucho, 1-Chome, Chiyoda-Ku, Tokyo, Japan. Branches: Throughout Japan. Overseas Offices: Bombay, London, Bangkok, New York and Singapore.

Bombay Branch at: 6, Wallace Street, Dr. Dadabhoy Naoroji Road, Fort, Bombay. P.O. Box No. 1278.

Manager: Mr. Chushin Ota.
Telegraphic Address: "MITSUIBANK". Telephone No. 26-4834 (3 lines).

## BANKS MERCANTILE BANK, LIMITED

(Incorporated in England)
(Liability of Shareholders Limited)

Authorised Capital Subscribed Capital . . £ 4,000,000 £ 2,940,000 £ 2,940,000 Paid-up Capital Reserve Fund

HEAD OFFICE: I, Queen's Road, Central, Hongkong. LONDON & REGD. OFFICE: 15, Gracechurch Street, London
E.C. 3.

WEST END OFFICE: 123, Pall Mall, London, S.W. I. BOMBAY OFFICE: 53, M. Gandhi Road, Bombay I. Bone: 258602-6. Grams: PARADISE (Tx) Phone: 258602-6.

Branches throughout India and the East.
GENERAL MANAGER
BOMBAY MANAGER
SUB-MANAGER F. I. C. Herridge. J. A. Anderson. A. S. Merrens. ...

A member of the Hongkong Bank Group.

#### BEARINGS

## HOFFMANN - FAFNIR - INA

Sub-Distributors:

## BHARAT TRADING CO.

71, Nagdevi Cross Lane, Bombay 3.

Phone: 323250.

#### BEAUTY AIDS

#### CHESEBROUGH-POND'S INC.

(Incorporated in U.S.A. with limited liability) 19 Commander-in-Chief Road, Madras-8.

Makers of world-famous Pond's and Cutex beauty aids and 'Vaseline' Brand Products

Telephones: 88681, 811284, 811285 & 811474.

Grams: "VASOPONDS".

Telex: 041-7382

#### BELTINGS

## P. RATILAL & CO.

Moti Mahal, 43, Dhanii Street, Bombay 3.

Distributors: "COCKILL'S V-Belts" Manufactured by: Fenner Cockill Ltd. Blue-Star: V-Link Belting (Tested quality), Endless Solid Woven Canvas/Linen/Terylene Belts. Vari-Speed Belts, Cone Drum Belts, "GRIPIT" Chrome Leather Nylon Sandwich Endless Belts, "UNIQUE" Tyre type flexible Couplings, Crucibles.

> Telegrams: "ETERNAL". 'Phones: 325980, 324544.

BLOCK (PROCESS) MFRS.

## COMMERCIAL ART ENGRAVERS PRIVATE LIMITED

Makers of: Quality Blocks in One & Multicolours, Mats, Lead Stereos, Rubber Stereos, & Offset Plates.

6, Saraswati Mandir, J. Shankar Sheth Road, Bombay-7.

Direction: F. R. Poonawala & Sons.

Phone: 359511/12.

e

## **BLOCK (PROCESS) MAKERS**

## SOLAR PROCESS STUDIO

(Prop., Bombay Art Printers)

Specialists in:—Line-Half-tone-Multicolours Blocks,
Matrices-Stereos-Designs-Layouts etc.

Office: -22, Apollo Street, Bombay I.

Works:—Near Safed Pul, Kurla-Andheri Road, Bombay 72.

Telephones: 551923/24.

## BOILER DESCALING COMPOUND

## N. E. PUNEGAR & CO.

Union Bank Bldg., Dalal Street, Fort, Bombay-1.

Phone: 257998.

Grams: 'ACMECOMPO',
Bombay,

\* ACME \* Compounds for descaling Boilers and Economiser etc.

## **BOLTS, NUTS & SCREWS**

## MAHARASHTRA HARDWARE STORES

Stockists for: G.K.W. Products, Bolts, Nuts, Screws, Washers, Rivets, Sheet Metal Screws, Rose Nails, Wire Nails. Coast Screws, etc.

94, Sarang Street, Bombay 3.

Phones: 327991; Res.: 571869. Grams: "BOLTARAM."

#### **BOLTS, NUTS, SCREWS**

#### MOHANLAL & CO.

Stockists & Distributors of

## GUEST, KEEN, WILLIAMS, LTD.

for Bolts, Nuts, Rivets and Fastenings.

144, Diamond Bldg., Lohar Street, Bombay 2.

Phone: 311916. Grams: "HARDSTOCK".

Branch at: 1092-B, Lambeshwar Naka, Relief Road, Ahmedabad. Phone: 23943

#### **BOLTS, NUTS & SCREWS**

## FREE INDIA METAL PRODUCTS CO.

Stockists of :

Bolts, Nuts, Rivets and Washers.

Mfgd. by : G. K. W. and TATA and also Machine make.

Also dealers in :

Hardware, Mill Gin Stores, Pipes & Pipe Fittings. Address: 65/67, Bhajipala Lane, Bombay-3.

Phone: 326924. Grams: "ROUNDBOLTS".

Sales Office: 48, Sarang Street, Bombay 3.
Phones: 326789, Resi. 359179.

## BOLTS, NUTS & SCREWS

## S. MOHANLAL & CO.

Manufacturers & Suppliers of all kinds of bolts, nuts & screws made from Brass & Steel. Sole Selling Agents for "SURLOCK" Superior Steel Spring Washers. Main Distributors for Maharashtra & Gujarat for High Tensile Bolts, Nuts & Screws manufactured by Sundram Fasteners Ltd. (TVS Group), Madras. Distributors for "UNBRAKO" Socket Head Cap Screws & Set Screws.

Tawawala Building, 34 Pathakwadi, Bombay 2 BR.

Phones: 311240 & 310915. Grams: "SOCKETREWS"

## BOLTS, NUTS, RIVETS MFRS.

## AVDEL (INDIA) PRIVATE LIMITED

409, Himalaya House, Palton Road, Bombay-1.

Manufacturers & Suppliers of:

AVEX blind Rivets & Riveting Equipment, "CHOBERT" blind Rivets & Riveting Equipment, "NUTSERT" blind Anchor Nut & Placing Equipment, AVDEL Riveting clamps, AVLUG Terminal Lug.

Phone: 267221.

{ Grams: "AVDELIND". Telex: AJITIND 011-2802.

## BOOKS (ACCOUNT & EXERCISE) MFRS.

#### FIDVI PRINTING PRESS

(Estd. 1907)

179, Abdul Rehman Street, Bombay 3.

Phone: 325915.

Grams: "FIDVIPRESS".

Manufacturers, Dealers & Exporters of Account & Exercise Books, Office Files, Diaries, Calendars, Desk Calendar Refills & Stands & other Advertising Novelties.

## BOOKS (ACCOUNT & EXERCISE) MFRS.



325546

## SHAH BOOK MFG. DEPOT

Abdul Rehman Street, Bombay 3.

Manufacturers of :

"PRABHAT" Exercise Books, Note Books & Drawing Books etc.

MADE OF BEST QUALITY GLAZE PAPER SOLD EVERYWHERE

BOOKS (ACCOUNT & EXERCISE) MFRS.
FOR EXERCISE BOOKS, ACCOUNT BOOKS
Office & College Files, Diaries & other stationery items



## FEDERAL BOOK MFG. DEPOT

23/25, Mirza Street (Parsi Gully), Bombay-3 (BR).
Factory:—110, Maulana Azad Road, Bombay-8.
Phones: 

321678 Office,
Grams: "FEDRALBOOK"

# BOOK PUBLISHERS & DISTRIBUTORS BLACKIE & SON (INDIA) LTD.

Blackie House, 103/5, Fort Street, Bombay I.

Grams: "BLACKIE" Bombay.

Phone: 261410.

Branches:

103/5, Fort Street, Bombay-1

285/J, Bepin Behari Ganguli Street, Calcutta-12

2/18, Mount Road, Madras-2 4/21-22B, Asaf Ali Road, New Delhi-1.

Agents for:

Blackie & Son Ltd., London & Glasgow; George Allen & Unwin Ltd., London; Routledge & Kegan Paul, London; Gordon & Breach, New York; K. & J. Cooper, Bombay.

## **BOOKSELLERS, PRINTERS & PUBLISHERS**

# INTERNATIONAL BOOK HOUSE PRIVATE LTD.

Indian Mercantile Mansions (Extn.), Madam Cama Road, Bombay-I.

Stockists of: Scientific, Technical, Legal and general Books; Chief Subscription Agents in India for the Readers' Digest; main distributors of Time & Life Publications. American, British & Indian Magazines at lowest rates.

Head Office: 214607, 214051; Book Shop: 252069.

## **BOOKSELLERS, PRINTERS & PUBLISHERS**

## THE NEW BOOK CO., PVT. LTD.

Books and Art Prints

188/190, Dr. D. Naoroji Road, Bombay I.

Phone: 263544/45. Grams: "NEWBOOK".

#### **BOOKSELLERS, PRINTERS & PUBLISHERS**

## ASIA PUBLISHING HOUSE PVT. LTD.

Calicut Street, Ballard Estate, Bombay 1.

Phones: 262831-32-33. Cables: "BOOKLORE".

Branch Offices: 69, Ganesh Chandra Avenue, Calcutta 13; "East View," 199, Mount Road, Madras 2; Indra Palace, Connaught Circus, New Delhi 1; Mull Building, Ashok Marg, Lucknow; 621-622 Avenue Road, Bangalore 2; "Buena Vista," Bashir, Bagh, Hyderabad; Chopra House, Sector 15B, Chandigarh 17; Ashok Rajpath, Patna; 447 Strand, London W.C. 2; 118 East, 59th Street, New York, N. Y. 10022.

# BOOKSELLERS, PRINTERS & PUBLISHERS A. H. WHEELER & CO., PVT., LTD.

Eruchshaw Building, 249, Dr. Dadabhoy Naoroji Road, Bombay I; I8, Netaji Subhas Road, Calcutta I, and I5, Elgin Road, Allahabad.

Railway Bookstall Proprietors.

Agents for Sir Isaac Pitman & Sons Ltd., Publishers,
Virol Ltd., Bovril Ltd., and The Biro Swan Ltd., makers

of "Biro" Ball Point Pens.

London Agents:—Arthur H. Wheeler & Co., St.
Stephen's House, Victoria Embankment, S.W. 1.

Tel. Address: "Bookstalls"—Bombay.

Phone No. 263915, Bombay. Post Office Box 204, Bombay I. Senior Manager: Mr. V. V. Chhaya.

## BOOKSELLERS, PRINTERS & PUBLISHERS

## THACKER & CO. LTD.

Booksellers, Printers, Publishers, Stationers, Subscription Agents. Registered Office & Printing Press: Evergreen Industrial Estate, Shakti Mill Lane, of Dr. E. Moses Road, Mahalaxmi, Bombay-II BC. Phones: 378204, 378205 Showroom: 18/20, Rampart Row Fort, Bombay-I BR. Phones: 252613, 252722, 297466.

0

## **BOOKSELLERS, PRINTERS & PUBLISHERS**

## MACMILLAN & CO. LTD.

(Incorporated in England with Limited Liability)

276, Dr. Dadabhai Naoroji Road, Bombay I.

Grams: "BIBLICOS."

Phones: 261184-261185

## **BOOKSELLERS, PRINTERS & PUBLISHERS**

## KOTHARI BOOK DEPOT

(Estd. 1935).

Medical Booksellers, Publishers and Subscription Agents. Acharya Donde Marg, Parel, Bombay 12.

Phone: 440805.

## **BOOKSELLERS, PRINTERS & PUBLISHERS**

#### ASIAN TRADING CORPN.

310, The Mirabelle, 33/A, New Marine Lines, Bombay 20.

Grams: "AJPIPAS"

Phone: 292672

Publishers' Representatives, Importers of Children's School, College, Catholic Religious Books & Subscription Agents.

Branch Office:

150, Brigade Road, Bangalore 25. Phone: 51807.

## **BOOKSELLERS, PRINTERS & PUBLISHERS** LALVANI BROTHERS

Taj Building, Dr. D. N. Road, Bombay I. Largest Wholesale House in India for Children's Books, Technical, Educational and General Books.

Phone: 266811-12.

## Branches:

MADRAS: 8, State Bank Lane, Mount Road, Madras 2. DELHI: 4, Daryaganj, Ansari Road, Delhi 6. CALCUTTA: 7, Lindsey Street, Globe Cinema Bldg., Calcutta 16.

## **BOOKSELLERS, PRINTERS & PUBLISHERS** BHARATIYA VIDYA BHAVAN

Chowpatty, Bombay 7.

Chowpatty, Bombay 7.

Publishers of elegantly got-up, yet low-priced, books of lasting cultural value and interest, through their widely acclaimed "BOOK University" Series. Also their monumental Series of the History and Culture of the Indian People in 11 volumes, besides a variety of other instructive and inspiring books. BHAVAN'S BOOKS are also available at: Bharatiya Vidya Bhavan, Mehta Sadan, Curzon Road, New Delhi I: 35-36, East Mada Street, Mylapore, Madras 4; 1/1, Meredith Street, Calcutta 13; Race Course Road, Bangalore 1; 1, Vincent Colony, R. S. Puram, Coimbatore 2; 3-5-815, Hyderguda, Hyderabad 1; Gulab Bhavan, Shalimar Road, Jammu; 207, Naicker New Street, Madurai 1; Ramchandra Nilayam, 3/12, Brodiepet, Guntur 2 (A.P.); Rawindra Bhavan, Bhopal (M.P.); Kamla Tower, Post Box No. 25, Kanpur and 25, Panchsheel Bldg., 1st floor, Wardha Road, Nagpur 1.

Phones: 351461, 351462.

### **BOOKSELLERS, PUBLISHERS & PRINTERS**

## HIND POCKET BOOKS PVT. LTD.

Publishers of Paperbacks in English, Hindi and other Indian Languages, incorporating Orient Paperbacks. G. T. Road, Shahdara, Delhi-32.

Phone: 212046.

#### **BOOKSELLERS, PUBLISHERS AND STATIONERS**

## AFFILIATED EAST WEST PRESS PVT. LTD.

C-57, Defence Colony, New Delhi-3.

Phone: 626373.

Grams : "BOWLINE".

Chairman: W. D. Tenbroeck; Publishers (Concessionaires for Van Nostrand Reinhold Company). Books: Educational, Technical & Scientific.

#### **BOOKSELLERS, PUBLISHERS & STATIONERS**

## **RAIPAL & SONS**

Leading Publishers and Booksellers and largest

Stockists of Hindi Books: Showroom: Kashmere

Gate, Delhi-6; Phone: 226201; Office: Kashmere

Gate, Delhi-6; Phone: 226389.

## **BOOKSELLERS, PUBLISHERS & STATIONERS**

# PRENTICE-HALL OF INDIA PRIVATE LIMITED

M-97, Connaught Circus, New Delhi-I.

Publishers of Eastern Economy Editions of University and College Text-books.

Phones: 48350 & 44769. Grams: "PRENHALL".

## BRIGHT BARS MFRS.

# INDIAN TUBE MILLS & METAL INDUSTRIES PRIVATE LTD.

Structural Engineers and Tank Fabricators, Manufacturers of Bright Bars. Agents in India for Grane's Valves & Fittings.

Office: 126, Narayan Dhuru Street, Bombay 3.
Factory: Agra Road, Opp.: Powai Lake Road, Vikhroli,
P.O. Tagore Nagar, Bombay 83.

Phones: Office: 322142 Grams: Factory: 581541 & 581542 "TUBEMILL".

Directors: O. P. Aggarwal, C. M. Aggarwal, D. C. Aggarwal, D. K. Aggarwal.

BRIGHT STEEL BARS MFRS.

## LOOKING FOR RRIGHT STEEL BARS

BRIGHT STEEL BARS IN COM-MERCIAL AND FREE CUTTING QUALITIES IN ALL SIZES.

## MEHTA ENGINEERING WORKS

405, Loha Bhuvan, P. DeMello Road, Bombay 9. Tel. 321298.

## **BUILDERS & CONTRACTORS**

## JOLLY BROTHERS PRIVATE LTD.

Engineers & Contractors

Lakshmi Insurance Bldg., Sir Phirozshah Mehta Road, Fort, Bombay-I.

Phone: 260141.

Grams: "JOLLYBROS."

Other Offices:

Poona, Bangalore, Amravati, Hyderabad & Madras.

## **BUILDERS & CONTRACTORS**

## LEVKA PRIVATE LTD.

Civil Engineers, Builders & Contractors

Office :

Sleater Road, Bombay-7.

Phones: 377431 & 377432

# BUILDERS & CONTRACTORS, SAND & STONE SUPPLIERS

## **NENSHI MONJI**

Head Office:

123, Mahatma Gandhi Road, Bombay I. Telephone Nos. 251054 & 255048. Bhoiwada Quarry: 473073.

> Sand Depot: 372626. Kurla Quarry: 581844.

Telegram Address: "STONESAND"

#### BRUSH MANUFACTURERS

# **BRUSHES**

OF DEPENDABLE & DISTINCTIVE QUALITY ...

## TOILET:

Aryan Tooth Brushes in Nylon and bristles; shaving and hair brushes, etc.

#### INDUSTRIAL:

For textile and other industrial purposes, manufactured and supplied to any specifications

# THE ARYAN BRUSH CO., LTD.

Office: Lentin Chambers, Dalal St., Bombay 1. Phone: 253274

Works: Vile Parle East, Bombay 57. Phone: 571218

Grams: "Brushco" Bombay, Vile Parle.

## **BUILDERS & BUILDING MATERIALS**

## MAHABIR PERSHAD & SONS

Chawri Bazar, Delhi 6.

Stockists of: A.C.C. Refractory materials, "EVEREST" Asbestos Cement Sheets, Septic Tanks, Storage Tanks, White Cement, Sanitary Fittings, "Bulldog" Brand Satna Lime, S.W., A.C., G.I., C.I., R.W. Pipes.

Phones: 265307, 264854, 262735.

0

#### **BUILDERS & CONTRACTORS**

# NATIONAL ASPHALT PRODUCTS & CONSTRUCTION CO.

"Hill View", Mahul Road, Chembur, Bombay 74. Phone: 522815.

38/C, Mohan Mansions, Mount Road, Madras-6.

Contractors for Earthwork, Rock Cutting, Asphalt & Concrete Roads, and Reinforced Concrete work.

Dealers in and Hirers of:
Earth-moving & Construction Equipment.

#### **BUILDERS & CONTRACTORS**

## SHAPOORJI PALLONJI & CO. PVT. LTD.

(Estd. 1865)

Leading Building Contractors to Government, Railways & General Public.

70, Medows Street, Bombay 1.

Phone: 311274. Grams: "GINFRAME", Bombay.

#### **BUILDERS & CONTRACTORS**

## AECO CONSTRUCTION CO.

Sanitary Engineers, Licensed Plumbers and Building Contractors. On the list of Government, B & C Dept., B.P.T., Bombay Municipality, M.E.S., Naval and Native States. Stockist of Tata G. I. Pipe, and all Sizes of Water Meters & Sanitary Meterials etc. etc.

Office: 91-93, Bapu Khote Street, Bombay-3. Phone No. 332598. Residence: Phone No. 379578.

## **BUILDERS & CONTRACTORS**

## SHAH CONSTRUCTION CO. LTD.

Engineers & Contractors, 'Shah House', Shivsagar Estate, Dr. Annie Besant Road, Worli, Bombay 18.

Specialists in:—Prestressed & R.C.C. Bridges, Asphalt & Cement Concrete Roads, Dams & Canals; R.C.C. Works of all types and Public Health Works undertaken with Mechanical Equipment. Experts in Gunite.

Phone: 376663.

Grams: "SUPERTRADE",

Bombay.

## **BUILDERS' HARDWARE**

# NASIK INDUSTRIAL ENGINEERING

Ram Nivas, Panchavati, Nasik 3.

Manufacturers & Exporters of:—NIECO Products,
Horse Brand Gate hooks & eyes, Screw hooks,
B Eyes, Nickel Plated Cup Hooks, Electro-galvanised Hook Bolts with Nuts. Products are available
in bright polished, Galvanised, Copper Oxidised
and Black-Jappan varieties.

#### BUILDERS' HARDWARE



MEHTA MANUFACTURERS
Shop No. 25-A, Sarang Street, Khokha Bazar, Bombay-3.
ALWAYS USE
M. M. BUILDING HARDWARE



## **BUILDERS' HARDWARE & FURNITURE FITTINGS**

## BHARAT ENG. SALES CORPORATION

20, A. Zakaria Masjid Street, Dongri, Bombay 9.

Gram: "BUKHUR"

Phone: 333513

## Manufacturers & Exporters:

Builders' Hardware materials and all kinds of furniture fittings in brass, Iron and aluminium. Also antique design handles, figures and presentation articles.

## **BUILDING CONTRACTORS**

#### SANGAM ENTERPRISES

Painters, Plumbers, Building Maint., Skilled and Unskilled Labour Contractors.

Phone: 693182.

14/222, Sardar Nagar No. 4, Sion Koliwada,

Bombay 22.

#### **BUILDING & CONSTRUCTION MACHINERY**

## ŠAYAJI IRON & ENGINEERING CO. PVT. LTD.

Chhani Road, Baroda-2.

Manufacturers of: "PRABHAT" Brand Concrete Mixers, Stone Crushers, Portable Stone Crushing & Screening Plants, Electric Hoists, Portable Swivelling Automatic Loaders, Hot Mix Asphalt & Bituminous Mixing Plants, 'SAYAJI' 5 H. P. Vertical Diesel Engine and Pumpsets.

# BUILDING MATERIALS NATSON MANUFACTURING CO. PVT. LTD.

Bombay Mutual Chambers, 19, Hamam Street, Fort, Bombay.

Phone: 254221. Grams: "GLOBULAR".

Works: Odhav, Ahmedabad.
Grams: "DAMPROOF."

Manufacturers of: Concrete Hardener, "Rite-Sil" Waterproof Cement Paint, Natson Cement Waterproofer, Acid & Alkali Resisting Cements, 'Prontocet' Rapid Hardening & Quick Setting Liquid for Cement, Cement Retarders, Smooth-on-Iron & Foundry Cement, "Mineralead" Pipe Jointing Compound for Bell and Spigot Type Cast Iron Pipes and Cast Iron Enamelled Bath Tubs.

#### BUTTER & COFFEE MFRS.

#### POLSON LIMITED

65B, Dockyard Road, Bombay 10 DD.

Grams: "POLSON"

Phone: 373245 (3 lines)

POLSON MODEL DAIRY—Anand & Patna.

COFFEE FACTORY—Mazagaon, Bombay.

GIFT & LOCAL SALES BUREAU

237. P. D'Mello Road, Bombay I.

## CABLES & WIRES

## PYROTENAX INDIA LTD.

Manufacturers of Alpyro Mineral Insulated Aluminium Covered Cables.

5, Elphinstone Road, Kirkee, Poona.

Phone 54588

Grams: 'PYROTENAX'

#### CABLES & WIRES

## RAVAL & CO.

Largest Stockists of:

Domestic & Industrial Wires, Underground Cables and Transformers.

Shreeji Bhuyan, Lohar Chawl, Bombay 2.
Phone: 313720. Grams: "GODSPEED"

Branch at 12-B. Rabindra Sarani, Calcutta.

Branch at 12-B, Rabindra Sarani, Calcutta. Phone : 345651.

#### CALENDAR MANUFACTURERS

# UNIVERSAL

CALENDAR MFG. CO.

Manufacturers of:

OFFICE CALENDARS - HANGERS
SHOW CARDS - REFILLS
ADVERTISING FANS

23-25, HAMAM STREET, FORT, BOMBAY I

Phone: 254443.

#### CALENDAR MFRS.

CALENDARS FANS SHOW CARDS POSTERS LABELS BOXES

Manufacturers:

#### VINAY CALENDAR CO.

Litho, Offset & Colour Printers.

104, Ardeshar Dadi Street, Vithalbhai Patel Road, Bombay 4. Phone No. 352293.

#### **CANNERS (FRUITS & VEGETABLES)**

# PURE PRODUCTS & MADHU CANNING LTD.

Fruit, Vegetable and Fish Canners, Manufacturers of Jams, Jellies, Marmalades, Squashes, Crushes; Suppliers to Defence Services

Office: Sion-Trombay Road, Chembur. P.O. Bag No. 7201, Bombay 71.

Grams: "PUPRO ".

## CANNERS (FRUITS & VEGETABLES)

## DR. WRITER'S CHOCOLATES & CANNING CO.

(Proprietors, F. D. Mehta & Co.)

Manufacturers of : High Grade Confectionery, Chocolates, Fruits in Tins, Vegetables, Jams, Macaroni, Spaghetti, Food Products, etc.

Bhavanishankar Road, Dadar, Bombay-28.

Phone: 451403.

CARDBOARD & CORRUGATED BOXES (MFRS.) CARTONS

## MOHAMADI FINE ART LITHO WORKS

Proprietors: Allibhoy Sharafally & Co. Private Ltd. (Estd. 1876: Incorporated: 1938); Mohamadi Buildings, Gunpowder Road, Mazagon, Bombay 10 (DD). Lithographers, Offset and Letterpress Printers, and Carton Manufacturers. Phones: 378148 & 378149. Grams: "KORAN."

## CAPACITORS MFRS.

'Use CIC Capacitor/There is non better'

Sole Distributors for Maharashtra & Gujarat States PRAKASH (INDIA) TRADERS

70, Bank of Baroda Building,

Carnac Road, Bombay I.

Grams: "AIRLIGHT." Phones: 269200, 263540.

## CARPETS MFRS.

## E. PEERBHOY & SONS

The Indian Durries Emporium (Prop. : A. H. SETRANJIWALA). Shahru Castle, 64, Mahommedalli Road, Bombay-3.

Manufacturers & Stockists of:

Carpets, Durries and Dealers in Handloom Textiles, Shoe making Machinery and Wooden Furnitures.

Phone: 323806.

## CARPET MFRS. EXPORTERS

## BHARAT CARPETS LTD.

28-B, Connaught Place, New Delhi, India.

Manufacturers and Exporters of Decora Tufted Carpets - latest in wall-to-wall luxury carpeting - in dense loop or velvet pile . . . in a riot of colours and range of patterns.

## CAST IRON PIPES AND SPECIALS

Contact :-

## DAISON TRADING CORPORATION

22-B, Apollo Street, 1st Floor, Bombay 1.

Phone: 252190.

Cast Iron Pipes, Cast Iron Pipe Fittings, Cast Iron Valves & Steel Pipes & Fittings.

#### CASTINGS

## SURESH ENGINEERING CO., PVT. LTD.

414-B, Walbat Road, Goregaon East, Bombay 63 NB.

Phone: 692832.

Manufacturers of:

Grey Iron Castings to I.S.I. grades upto 3 tonnes individual casting.

## CATALYSTS & CHEMICALS

## CATALYSTS AND CHEMI-CALS INDIA (WEST ASIA) PRIVATE LTD.

Manufacturers of: Catalysts for ammonia, hydrogen and petrochemical plants.

Regd. Office: K. P. 1108/II, National Highway, Kalamassery P. O. (Via Alwaye, Kerala).

Factory: Edayar Industrial Area, Near Alwaye, Kerala. Sales and Technical service office: 240 D. Naoroji Road, Bombay I. Phone: 262052, 264849. Cable: "FLOWERMEAD"

#### CEMENT

# PANYAM CEMENTS & MINERAL INDUSTRIES LTD.

Manufacturers of:

'PYRAMID' brand ordinary Portland Cement.

Regd. Office & Factory:

Cement Nagar P.O., via Bugganipalli R. S., Kurnool (Dt.) (AP).

#### CHAINS

## RAIKAMAL TRADERS

23, Hamam Street, Bombay I.

Stockists of Imported Transmission Roller Chains, Single-Duplex-Triplex and Connecting and Crank Links, Jacquard Driving 45 FH & Roller Type Chains, Malleable Chains, Flat Card Top Chains.

Phone: 254273.

## CHAINS

Simplex-Duplex-Triplex to suit any and every Transmission & Mechanical Handling Jobs

Sole Distributors for:
"ROLON" Industrial Transmission & Driving Chains

## JUPITER TRADERS

283, Princess Street, Bombay 2.

Grams: "CHAINHOUSE". Phones: 317715, 314031.

#### CHAIN MFRS.

## L. G. BALAKRISHNAN & BROS. PVT. LTD.

Ganapathy, Coimbatore-6

Branch Office: 31/32, Tardeo A. C. Market, Bombay 34.

Manufacturers of: - ROLON Chains for all types of

Automobile and Industrial Purpose.

## CHAIN (POWER TRANSMISSION & CONVEYORS)

## **ASHTON GREEN & COMPANY**

118, Vir Vithaldas Chambers,

16, Apollo Street, Bombay 1.

Stockists of all types of Roller, Bush, Malleable & Tooth Chains & Spares; Also Pinions & Sprocket Wheels etc.

Phone: 254375.

### CHEMICALS

For your requirements in Chemicals, Solvents & Intermediates.

Please Contact:

## SHANTILAL DHARMSHI

P. O. Box 3232

349/53, Samuel Street, Bombay-3.

Phones: 323981-82.

Telex: 2765-ESDEE.

Grams: "SANTITOLIA", Bombay 3.

## CHEMICALS

## MENTHOL B. P. INDIAN

Manufactured by :

BHAVANA CHEMICALS LTD., Baroda-2.

Distributors : GOPALJEE & CO.,

218, Samuel Street, Vadgadi, Bombay-3.

Phones: Office: 323421, 324206, 320625; Res. 473346.
Grams: "HINGMAKER."

## CHEMICALS

## AMRUTLAL BHURABHAI & CO.

Laboratory, Industrial, Photographic Chemicals, Reagents, Solvents & Pharmaceuticals.

Manufactured by
British Drug Houses (India) Ltd.
Sarabhai M. Chemicals Ltd.,

BDH, a division of Glaxo Laboratories Ltd.
"Amrut" Industrial Products & "Globe" Products.
Anand Bhuyan, Princess Street,
Bombay 2 (BR). P.O. Box No. 2379.

Phones: 311023 311024 Grams: 
" CHEMDRUGS "
Bombay 2 (BR).

311025

25

#### CHEMICALS

## THE PIONEER TRADING CO.

Dealers in :

Light & Heavy Industrial Chemicals & Auxiliaries.

Address :

210, Samuel Street, Vadgadi, Bombay-3.

Grams: "CHEMITRADE".

Phone: 324607.

#### CHEMICALS

## SATYADEV CHEMICALS PVT. LTD.

P.O. Box 101, Pratapnagar Road, BARODA

Manufacturers of:—Fine Chemicals, Hydroquinone and its derivatives, Metol, Sodium Sulphite, Sodium Bisulphite, Sodium Metabisulphite, Sodium Acetate, Manganese Sulphate, Monohydrate Pure & Technical, Manganese Carbonate, Colour Film Processing Chemicals etc.

#### CHEMICALS (IMPORTERS & STOCKISTS)

## AMRITLAL & CO. PRIVATE LTD.

'Rang Udyan'

Dealers in Dyes and Chemicals. Sole Selling agents for Sojuzchimexport, U.S.S.R. for Dyes, Intermediates & Chemicals, and general Indentors with business contacts all over the world.

Phone Nos.: 453251 & 262291. Grams: "RASIK".

Branches: Delhi, Amritsar and Calcutta.

#### CHEMICAL MFRS.

## UNITED CHEMIE

Manufacturers of: (i) Sun yellow RCH. (ii) Brilliant yellow. (iii) 4-4' Diamino Stilbene 2-2' Disulphonic Acid. (iv) 4-4' Dinitro Stilbene 2-2' Disulphonic Acid and now producing Chrysophenine G.

Address: Taydipura, Shahibaug Road, Ahmedabad 4.

Phone: C/o 23923.

#### CHEMICALS MFRS.

# PHOENIX CHEMICAL WORKS PRIVATE LTD.

Manufacturers of :

Sodium Silicate, Liquids & Powders, Potassium Silicate, Sodium Metasilicate, Basic Electroplating Chemicals & Fine Chemicals.

Bachoobhai Building, 187, Dr. Dadabhai Naoroji Road, Bombay I.

Phone: 266409.

Grams: "WATERGLASS".

#### CHEMICALS MFRS.

# THE MYSORE ACETATE & CHEMICALS CO., LTD.

Mysugar Building, Post Box No. 772 Sri Jayachamaraja Wadiyar Road, Bangalore 2.

#### CHEMICALS MFRS.

## PRAKASH CHEMICAL INDUSTRIES

31, Duncan Causeway, P. B. No. 6775, Sion, Bombay-22.

Grams: "MICROBE". Phone: 471962.

Manufacturers of: Fine Chemicals, Laboratory Chemicals, Mineral Supplements for Poultry & Animals.

# CHEMICALS MFRS. HOECHST DYES & CHEMICALS LTD.

Dugal House, Backbay Reclamation, Bombay-20. Grams: "HEXTKEM". Phone: 298370. Telex: 2556. Branches at: Ahmedabad, Bombay, Calcutta, Madras, and New Delhi

and New Delhi
Manufacturers of: Polyvinyl acetate dispersions,
"Mowilith", "Mowicoll", and "Appretan", under
licence from Farbwerke Hoechst AG., West Germany.

Distributors of:
Products manufactured by Farbwerke Hoechst AG.,
and its subsidiaries; Colour-Chem Ltd., Bombay;
Indian Dyestuff Industries Ltd., Bombay; Navin
Fluorine Industries, Bombay; Polyolefins Industries
Ltd., Bombay; and Sardesai Brothers Ltd., Billimora.

#### CHEMICAL MFRS.

## UNIVERSAL CHEMICALS (INDIA)

7/10, Horniman Circle, Bombay-1.

Manufacturers of: Heavy Industrial Chemicals. Offer Ex-Stock BLANC Fixe Barium Carbonate, Barium Chloride, Sodium Sulphide, Calcined Vermiculate.

Grams: "UNIVERSAL". Phones: 255110 & 254145.

## CHEMICALS & DYES

## C. AGRAWAL & CO. PVT. LTD.

Importers & Stockists of Dyestuffs & Chemicals.

43-44, Lakshmi Building, Sir Phirozeshah Mehta Road, Bombay-1.

Phones: 261344, 265163, Cables: "AGRAWALCO".

## CHEMICALS & SOLVENTS

## K. UTTAMLAL & COMPANY

Chatrabhuj Nivas, Ist Floor, 70, Garibdas Street, Bombay 3.

Direct Importers, Suppliers & Stockists of Industrial, Heavy and Fine Chemicals, Dyes and Pharmaceutical Intermediates, Pigments, Plasticizers, Organic and Inorganic Solvents, etc.

Phones: 323295 & 323969.

## CHEMICALS & DYES

## DANDEKAR COMPANY

Stockists of :

Chemicals, Minerals, Sizing Materials, Fertilizers, etc.

Address: 40, Bombay Mutual Annexe, 4th Floor, 17, Gunbow Street, Bombay-1.

Grams: "SHEKHAR" Phofie: 261038.

## CHEMICALS & DYESTUFFS N. JIVANLAL & CO., PRIVATE LTD.

IMPORTERS-EXPORTERS, STOCKISTS OF:

IMPORTERS-EXPORTERS, STOCKISTS OF:
Heavy & Light Chemicals, Dyes & Dyes-Intermediates, Pharmaceuticals, Solvents, Fertilizers, Carbon Black & Paint Raw materials, Epoxy Resins, Rubber Chemicals, Aromatic Chemicals, Essential Oils, Laboratory Chemicals, Laboratory Equipments, Rubber Contraceptives. PRODUCERS & EXPORTERS OF: Essential Oils viz, Palma Rosa Oil, Lemon Grass Oil, Citronella Oil etc. Oil etc.

Nagindas Chambers, 167, P. D'Mello Road, Bombay-I. Grams: "NIRANJAN". Phones: 266527-28-29.

Telex: 011-3427.

NEW DELHI OFFICE: 12/90 Connaught Circus, New Delhi. Phone: 44082 Grams: "METACHEM"

AGENTS FOR:
Messrs. Chemapol Foreign Trade Co. Ltd.; Messrs. Kovo, Messrs. Koospol, Messrs. Pragoexport, Praha (Czechoslovakia)

## CHEMICAL ENGINEERING EQUIPMENT

## EMMES METALS PRIVATE LTD.

Fabrication of chemical plant and equipment and specialised linings in lead, p.v.c., rubber, epoxy and fibre glass. Manufacture of all types of non-ferrous alloys conforming to Indian and International Standards. Specialised products such as brazing and industrial fluxes and other chemical auxiliaries.

## CHEMICAL IMPORTERS & DEALERS

## CHEMICALS DE CENTRE

A-3/15, Asaf Ali Road, New Delhi-1.

Importers & Dealers-Chemicals of all types for use in Industries, Research Laboratories, Educational Institutes & Agriculture.

Phone: 277447.

## CHEMICALS (IMPORTERS & FORMULATORS) MONSANTO CHEMICALS OF INDIA

PVT. LTD. Wakefield House, Sprott Road,

Ballard Estate, Bombay I. Phones: 262623/24/25. Grams: "MONSANTO," Bombay.

District Offices: (1) Monsanto Chemicals of India Private Ltd., 19, Rajendranath Mukherjee Road, Calcutta 1; (2) Monsanto Chemicals of India Private Ltd., 3/8, Asaf Ali Road, New Delhi; and (3) Monsanto Chemicals of India Private Ltd., Caithness Hall, 310/311, Linghi Chetty Street, G.T., Madras.

#### CHEMICALS & PHARMACEUTICALS



## BAYER (INDIA) LIMITED

Nagin Mahal, Vir Nariman Road, Bombay 20 (BR)

Manufacturers of:

Rubber Chemicals, Agricultural & Household Pesticides, Pharmaceuticals, etc.

Phone: 297171 T

Telegrams: "BAYERIND"
Telex: (011) 2559

#### CHEMICALS & PHARMACEUTICALS

# INDUSTRIAL SOLVENTS & CHEMICALS PVT. LTD.

Manufacturers of: ANAESTHETIC ETHER B.P. for safe and reliable Anaesthesia.

Bombay-Agra Road, P.O. Wagle Wadi, Thana.

## CHEMICALS & SIZING MATERIALS

#### KIRTIKUMAR & CO.

(Established 1943)

80, Bhandari Street, Mandvi, Bombay 3.

Direct Importers & Stockists of : Industrial Chemicals.

Phones: 321583, Res. 318854.

Grams: "LALITKIRTI."

#### CHEMICALS & SOLVENTS

## D. JAMNADAS & CO.

A Reliable House for :

Chemicals! Solvents!! Intermediates!!!

207, Samuel Street, Vadgadi, Bombay 3.

Phones:

Gram:

325181, 327919.

"VANDAN", Bombay, Mandvi.

Distributors for :

ACETIC ACID, CARBON TETRACHLORIDE (1.S.I.)

#### CHEMICALS & SOLVENTS

# COMMERCIAL SOLVENTS CORPORATION

Stockists of all kinds of Heavy & Fine Chemicals & Solvents.

## Address:

Commissariat Bldg., 5th Floor, 231, Dr. Dadabhoy Naoroji Road, Bombay I.

Phones: 265446, 262762.

Grams: "SOLVO".

#### CHEMICALS & SOLVENTS

## CHUDGOR & CO. (PVT.) LTD.

Dealers in: Chemicals & Solvents, etc.

Anand Bhuvan, Princess Street, Bombay 2 BR.

Phones: C/o 311023, 311024 & 311025.

Grams: "CHUDGORECO."

#### CHEMICALS & SOLVENTS RAW MATERIALS

Contact:

#### PRAKASH CHEMICAL CO.

For Paint, Rubber, Plastic, Textile, Sugar and other Industries.

Available from Ready Stock and from incoming consignments.

4, Sutar Chawl, Bombay-2.

Phones: 329830; Resi. 523548.

Grams: "PROMINENT".

## CHEMISTS (MFRS.)

# STANDARD CHEMICAL & PHARMACEUTICAL CO.

Manufacturers of:

Saccharin B.P. Soluble & Insoluble, Disinfectant fluids, Household Insecticides and Pyrethrum Extract.

Atlas Mills, Reay Road, Bombay-10.

Phone: 373542

Grams: "GERMDL"

#### CHEMISTS AND DRUGGISTS

# CHUNILAL MAYACHAND MEHTA (CHASMAWALA)

Pharmaceutical Distributors & Opticians 3059, Three Gates, Ahmedabad I.

Grams: EYEDROPS.

Phone: 23429.

Wholesale Depot: Near La Gajjar Chambers, Ashram

Road, Ahmedabad 9

### CHEMISTS & DRUGGISTS

## THE POPULAR PHARMACY (REGD.)

Dhun Building,

310, Dr. Bhadkamkar Marg (Lamington).

Grant Road, Bombay 7.

Dispensing Chemists

Phone: 351884

## **CHEMISTS & DRUGGISTS**

# akbarallys

## RIGHT-PRICE DEPARTMENT STORE

Drugs, Provisions, Readymades, Cosmetics, Toiletries, Travel Goods, Household Needs, Crockery, Presentations, Confectionery, Chandu Sweets, Electrical Appliances Tailoring, Spectacles, Music Corner, Sundatta Fabrics, Sarees, Toys, Cafeteria, Costume and Silver Jewellery, Fresh Fruits Mail Order Service and State Lottery Ticket.

45, Veer Nariman Road, Fort, Bombay. Phone: 253921. Grams: "TUSSIBAR".

True.

Dog.

Magnetic

CHUCKS.

& Drill





## CHUCKS MFRS. VIDELY PREFERRED

WIDELY PREFERRED FOR PRECISION & DURABILITY Mfgd. By:

JEMCO CHUCK Mfg. Works Bombay 64.

Phone: 692612. Accredited Dealers

JAMES TOOLS & HARDWARE CO.

(House of Chucks)
111, Nagdevi St.,
Bombay 3.
Phone: 323839.

#### CIGARETTE MANUFACTURERS

# THE VAZIR SULTAN TOBACCO CO. LTD.

Azamabad — Hyderabad

Makers of: "CHARMINAR".
India's Largest Selling Cigarette.

Phones: 36861-2-3.

Grams: "CHARTOBCO"

Telex: Chartob — 236 Charmin — 237

#### CIRCLIPS

INTERNAL — EXTERNAL AND "E" TYPE

Available from Ready Stock 4 MM to 180 MM In Both types.

## **TEXO AGENCIES**

12, Noble Chambers, Parsee Bazar Street, Bombay-I.
Phone: 251010.

## CLEARING & FORWARDING AGENTS

## LILADHAR PASOO & CO.

Raj Chambers, 4th Floor, Final Plot No. 87-A, Broach Street, Bombay-9 BR.

Shipping, Clearing, Forwarding, Insurance and Warehousing Agents and Banks' Mukadams.

Phones: 321944 & 321945. Grams: "LETUSSERVE"

## CLEARING & FORWARDING AGENTS

## AIRPORT HANDLING SERVICES

Annexe 1/14, East Patel Nagar, New Delhi-8.

Licensed Customs Clearing Agents, Packing, Shipping Clearing and Forwarding by Air and railes; Stevedoring Contractors at Airport—Guaranteed efficient Service.

Phone: 587946.

Grams: "AIRHANDS."

#### CLEARING & FORWARDING AGENTS

## FREIGHT CARRIERS PRIVATE LTD.

Clearing, Forwarding, and Travel Agents,

43, Tamarind Lane, Fort, Bombay.

Phones: 258031 & 253305.

Grams: "QUICKFREIT ".

#### CLEARING & FORWARDING AGENTS

## N. S. GUZDER & CO., PVT. LTD.

Head Office : Neville House, Ballard Estate, Bombay.

Branch :

Bombay House, Bruce Street, Fort, Bombay.

General Shipping & Forwarding Contractors, Cotton Merchants.

Phones: 263414/15 and 251501 Extn. 480.

#### CLEARING AND FORWARDING AGENTS

## P. CAWASJI & CO.

Despatches by Rail, Sea and Motor Transport arranged.

Storage Facilities available

18, Karwar Street, Fort, Bombay-1,

Phones: 262115, 261679 Grams: "PICOSJICO"

## **CLEARING & FORWARDING AGENTS**

## CONTINENTAL CARRIERS

37-H, Connaught Circus, New Delhi-I.

Customs Licensed Clearing and Shipping Agents, Foreign Freight Forwarders & Packers; I.A.T.A. approved Cargo Agent, Specialists in Shipment of Personnel Baggages all over the world.

Phone: 40010. Cable: "CONCARRIER."

#### **CLEARING & FORWARDING AGENTS**

## MANILAL MOHANLAL KARACHIWALLA

Bank's Authorised Clearing, Forwarding, Shipping & Warehousing Agents.

Leheri House, 81/N. Mahommedali Road, Bombay 3 BR.

Phone: 323139. Office: 250516 (Res.).

Grams: "OWNER".

#### CLEARING & FORWARDING AGENTS

## A. V. JOHN & CO.

Transport Contractors & Clearing/Forwarding Agents.

Address:

"YASHODHAN", Gokhale Road, Thana, Bombay.

Telephones: 591176-593159.

Proprietor: A. G. John.

#### CLEARING & FORWARDING AGENTS

## **BUHARIWALA & SONS, B. C.**

(Estd. 1925).

5, Graham Road, 1st Floor, Ballard Estate, Bombay 1.

Phone Nos. 265451/53. Grams: "BECIBESONS." Licensed Clearing, Shipping & Baggage Agents.

Branch Office: 3/A, Asaf Ali Road, Saraswati Devi Building, New Delhi.

Phone: 271796.

#### **CLEARING & SHIPPING AGENTS**

## **EXPRESS TRANSPORT PRIVATE LTD.**

(Estd. 1946)

Clearing, Forwarding & Shipping Agents.

Bombay Office:

Western India House, Sir P. M. Road, Bombay I. Phone: 253864. Grams: "MOVEFAST".

Branches at: Ahmedabad, Baroda & Gandhidham. Let your merchandise move fast through Express.

## CLEARING, FORWARDING & SHIPPING AGENTS

## TRAVELS & SHIPPING PVT. LTD.

Darabshaw House, Dougall Road, Ballard Estate, P.O. Box No. 1314, Bombay I.

Licensed Clearing, Forwarding, Shipping & Warehousing & Travel Agents.

Grams: "TAVELAGENT"

Phone: 263548.

#### COAL & COKE

## NATIONAL COAL CO.

2, Tolstoy Marg, New Delhi-I.

Mg. Partner: B. J. Nargath.
Colliery Owners & Coal Merchants.

Selling Agents: Bengal, Bihar & Central India Collieries: Branches all over the country.

Phones: Res.: 40933. Office: 47365

## COCKS & VALVES

## KIRLOSKAR BROTHERS LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona-2.

Works: Kirloskarvadi (Maharashtra) and Dewas (M.P.).

Manufacturers of: Pumps, Valves, Machine Tools, Hermatic Compressors & Farm Machinery.

Offices: Ahmedabad, Bangalore, Bhubaneswar, Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad.

Distributors: In all towns and cities.

## COCKS & VALVES

## MEHTA NANAVATI & CO.

96, Narayan Dhuru Street, Bombay 3.

Branch: 1/6-B, Asafali Road, New Delhi-1. Phone: 273173. Grams: 'MENTCO'.

Phones Office: 324645. Resi.: 365114. Grams: "REDJOINT".

Distributors of: 'Mentco' Sluice Valves from 2" to 36"; Oil field, Industrial valves, Boiler mountings & accessories. Packing, Jointings, Pipes fittings & Valves of all type pressure and purposes.

## COLD STORAGE

## HOMILA ICE WORKS, COLD STOR-AGE AND REFRIGERATION

Manufacturers of : Pure and Colourless Ice.

33-C, Jairajbhoy Street, near Municipal Work Shop, Foras Road, Bombay 8 (India).

Phone Nos.: 371692 & 371314.

## COLD STORAGE & ICE FACTORIES

# SUNAWALLA ICE FACTORY & COLD STORAGE

(Estd. 1918)

35C, Jairajbhoy Street, Next to Municipal Workshop, Byculla, Bombay-8.

Phone: 371692.

Factory: 188, Lamington Road, Bombay-7.

# COLLAPSIBLE TUBE MFRS. EXTRUSION PROCESSES PVT. LTD.

Ram Baug, Malad, Bombay-64.
Baroda Plant: Old Padra Rd., Akota, Baroda-5.

Manufacturers of:

Collapsible tubes for tooth paste, ointments, adhesives cosmetics etc. and rigid containers for packing

sives, cosmetics, etc. and rigid containers for packing tablets, powders, etc., also aluminium housings for electronic industries.

Sole Selling Agents:
Aluminium Products & Alloys,

84, Ghoga Street, Bombay-I. Telephone: 298815.

Managing Director: Shri M. I. Patel.
PHONE:

Bombay: 691293 (5 lines) Baroda: 3986 Gram: 'COLAPSTUBE' Telex: 011-3359 TUBECAN

## COLLIERIES

# BALLARPUR COLLIERIES COMPANY

Bisesan House, Temple Road, Nagpur-I.

Phones: 23054 & 23541.

Grams: 'COAL'.

Collieries at Ballarpur, Sasti & Ghugus.



CONDUITS for

## INDUSTRIAL & HOUSE WIRING

Approved by :

I. National Test House, Alipur, Calcutta. 2. Fire Insurance Association of India, Bombay.

Mfrs.

## R. S. S. G. CONDUITS & TUBES PVT. LTD.

Dahisar, Bombay-68. Phone: 661397. Grams: CONDUITS BORIVLI.

123/436, Fazal Gunj, Kanpur. Phone: 37817. Grams: KONTUBE.

CONDUIT PIPES





Specialists in Pipes, Fittings, Wires & Switchgears. Stockists of Everything Electrical. Distributors for : "C.T.L." Conduit Pipes, Dahlsar.

## CHANDRODAYA ELECTRIC CO.

Bhangwadi, Kalbadevi Road, Bombay 2. Grams : "TRICYCLE." Phone: 312579.

## CONDIMENT MANUFACTURERS

## M. M. POONJIAJI & CO.

42, First Marine Street, Bombay-2.

Manufacturers & Exporters of:

"SHIP BRAND" GREEN LABEL Indian Condiments, Mango Chutneys, Pickles, Madras Curry Powder & Curry Paste, Bombay Ducks, Pappadams & Sugar-cane Vinegar.

Grams: "PRESERVE".

Phones: 312412 Res.: 255475

## CONDIMENTS & DRUMS MFRS.

## K. T. KUBAL & CO. PVT. LTD.

(Estd. 1926)

40, R. S. Nimbkar Marg, Bombay 8.

Phone: 373219.

Manufacturers of Electrical Welded Drums and Containers: Manufacturers and Exporters of famous "KUBAL" Masala Curry Powder, Pickles, etc.

## CONDIMENTS & PICKLES

## V. P. BEDEKAR & SONS PVT. LTD.

Tatya Gharpure Path, Bombay-4.

Manufacturers & Exporters of : Mango, Lemon, Chilly & Mixed Pickles in Oil, Mango Chutney, Curry Powder. Papads and Indian Condiments.

Phone: 356673.

Grams : "BEDEMASALA ". Bombay 4.

## CONSULTING ENGINEERS

Phones: 294533, 298826 363680, & 350470. Grams: "RAJVALUER".

## RAII CHOPRA & SONS

Consulting Engineers, Engineer-Surveyors & Valuers. Consulting Engineers, Engineer-Surveyors & Valuers.

ASMOPAL ENGINEERING CO., Engineers &

Manufacturers of 'A.E.C.', 'Raji' and 'R.C.' Electric

Motors with I. S. I. Mark & D. G. S. & D. approved

Grinders & Water-Pumps.

Sunder Mahal, 141, Marine Drive, Bombay 20.

Phones: Factory: 441373, 441597-98.

CONSULTANT

M. L. CHOPRA, B.A., C.Eng., F.Inst. C.E., F.I. Mech. E., F.I.E.E. (Lond.), Chartered Civil Engineer, Chartered Mechanical Engineer & Chartered Electrical Engineer.

#### CONVEYOR BELTS MFRS.

Manufacturers of:

## R. D. ASHER (Engineering Division)

Steel Processing Conveyor Belts & Conveyors. 10. Bruce Street, Bombay-1.

Phone: 317704.

## COOLING TOWER MFRS.

## PAHARPUR TIMBERS PRIVATE LTD.

Head Office:

I-B, Judges Court Road, Calcutta-27 Phone: 451514 (Office) & 452041 (Factory) Grams: "WOODJOINER"-Calcutta & Bombay.

Minerva House, Opp. Marine Lines Station, 71, Queen's Road (Maharshi Karve Road) Bombay-2

Phone: 315451

#### COTTON DEALERS

## **DHANRAIMAL GOVINDRAM**

Calcot House, 8-10, Tamarind Street, Fort, P.O. Box No. 590, Bombay-I.

> Phones: 258148; Sewri 376315. International Telex 011-2543.

"GURUPUIA". Grams : Inland :

"EVERFRESH". Foreign:

Offices at all Important Centres in India.

### COTTON DEALERS

## BREUL & CO.

Cotton Merchants, Brokers, Exporters & Commission Agents.

Taj Building, Dr. Dadabhai Naoroji Road, Fort, Bombay.

Proprietor: J. K. S. Nicholson.

Phones: 293981/2/3 (3 lines). Grams: "BREUL." Press Telegrams Address: "BREULPORT"

Telex No. BREULTELEX-BY: 011-2567. G.P.O. Box 27, Bombay I.

## **COTTON WASTE & RAGS**

Whenever you think of CLEARING COTTON WASTE or COTTON RAGS

Remember

## ABBAAS & CO.

General Textile Waste Merchants, Contractors, Suppliers & Exporters.

23-25, Tank Street, P.O. Box 4580, BOMBAY-8 (BC)

Grams: "WASTE-O-RAGS", Tel. No.: 371014

BOMBAY

## COUNTERS



## COUNTING INSTRUMENTS

Stroke, Revolution Counters, Time Totalizers, Road Measuring Counters, Predetermined Counters, Bottle Counters, Hand Counters, Impulse Counters, Tachometers etc.

KRISHNA INSTRUMENTS & APPLIANCES CO.

230, Arun Chambers, Tardeo Road, Next to Air-Conditioned Market, Bombay-34 WB. Telephone: 372213.

#### CRANES MFRS.

## TODI INDUSTRIES PVT. LTD.

(Engineering Division)

Manufacturers of: Overhead hand operated Cranes, Straight & Circular with or without gantry girders, Fabricated items and Steel Windows & Doors.

Address: Todi Estate, Lower Parel, Bombay 13.

Grams: "OFFER". Phone: 371336.

#### CRANKSHAFT MFRS.

## ARUN ENGINEERING WORKS

Udyambag P.O., Belgaum.

Phones: 345 & 1046.

Grams: "CRANKS".

Manufacturers of:

Quality Crankshafts of all types. C. I. Pistons of all types. Hydraulic Trolley Garage Jacks. Hydraulic Press 40-50 Ton Capacity "BULL" Arbor Presses. PILLAR 'DRILLING' Machine 11 Capacity.

#### **CRUCIBLES**

#### P. RATILAL & CO.

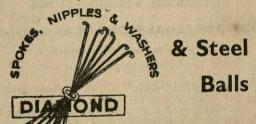
Moti Mahal, 43, Dhanji Street, Bombay 3.

#### Sole Agents:

"BLUE-STAR" Graphite Crucibles, also available Cockill's V-Belts, Endless Woven Belts, Gripit Nylon Sandwich Endless Belts, V-Link Belting, Vari-Speed Belts, "UNIQUE" Tyre type flexible Couplings, etc.

Telegrams: "ETERNAL." 'Phones: 325980, 324544.

#### CYCLES, CYCLE ACCESSORIES



Mfgd. by SHAH INDUSTRIES 366/68, Kalbadevi Road, Bombay 2.

Grams : "CYCLEBELL." Phone: 315038.



#### CYCLES & CYCLE ACCESSORIES

Phone: 314588 Grams: "GUPTACYCLE"

CYCLE COMPANY

Manufacturers' accredited Dealers for India: Hercules, PhillipsB.S.A., Raleigh, Humber, Robinhood, Atlas, Eastern Star & Hind
Cycles; Dunlop, Goodyear, National Rubber Tyres & Tubes,
And also leading EXPORT HOUSE in CYCLES,
CYCLE SPARE PARTS & ACCESSORIES

Well represented in Middle East, South East Asia, Indonesia and
East and West Africa.

Gold Mohar Elde. 172. Shamaldas Gondhi Mars

Gold Mohar Bldg., 172, Shamaldas Gandhi Marg (Princess Street), Bombay 2.

#### CYCLES & CYCLE ACCESSORIES

## NOBLE CYCLE & MOTOR CO.

225, Dr. Dadabhoy Naoroji Road, Fort, Bombay I.

Authorised Dealers:

Raleigh, Hercules and Hind Group Cycles.

Cycles also supplied under easy payments by instalments scheme.

Our Speciality: Free Service after Sales. Genuine Parts.

#### DASHBOARD INSTRUMENTS MERS.

## INTERNATIONAL INSTRUMENTS PVT. LTD.

Manufacturers of Tachographs, Speedometers, Ammeters, Fuel gauges, Temperature gauges, Pressure gauges, Vacuum gauges, Fare meters, Cables and other Automobile Precision Instruments.

140, Hosur Road, Bangalore-34.

Phone: 73121-22-23 Grams: "SPEEDMETER" Telex: 261.

#### DIAMONDS & PRECIOUS STONES

## PITAMBERDAS MOHANLAL & SONS

Precious Stones & Gems Exporters, 4, Mandlik Road, Bombay I.

Grams: "GEMLEADER"

Phone: 212276

Exporters of:-All kinds of Cut & Rough Precious & Semi-Precious Stones and Bead Necklaces.

(Estd.: 1880)

#### DECORATIVE PLYWOOD

## NASH & CO.

Distributors of:

ANCHOR: Decorative Plywood & Block Boards, JOLLY: Hardboards, Insulation Boards & Ceiling Tiles. OKAL: Boards, "Novateak" Particle Boards. OKAL: Boards,

FEVICOL : Glues.

FORMICA: Decorative Laminates. THERMOCOLE.

Grams: "NASHCONET."

Phone: 324968.

103, Abdul Rehman Street, Bombay 3.

## DIAMONDS PRECIOUS STONES & PEARLS

## DAHYALAL MAKANJEE ZAVERI

(Estd. 1900)

Dealers in : Precious Stones, Diamonds, Pearls and Manufacturing Jewellers.

Address: 98, Sheikh Memon Street, Bombay 2.

Phone: 313218.

Grams: "IAYKUBER".

## DIAMONDS, PRECIOUS STONES & PEARLS

## MAGANBHAI & LALLUBHAI

lewellers

Direct Importers and Exporters of Real & Cultured Pearls, Precious & Semi-Precious Stones, Diamonds-Rough and Cut.

> 184-185, Sheikh Memon Street, (Opp. Bank of India), Bombay 2.

Phone: 313785.

Grams: "MOTIBUTTON"

## DIAMONDS, PRECIOUS STONES & PEARLS

## MOTILAL VIIBHUKHANDAS

155, Sheikh Memon Street, Bombay 2 BR.

Dealers: Gold. Silver.

Importers & Exporters: Chemicals, Precious & Semi-Precious Stones.

Indentors & Agents, General Merchants.

Phone: 326537. Grams: "AMIABILITY", Bombay

## DIAMOND CUTTING TOOLS

## STAR DIAMOND TOOLS

60, Sir Pherozeshah Mehta Road, Bombay-I.

Manufacturers and Exporters of: Diamond dressers, special tools, diamond powder and paste etc.

Re-setting service undertaken

Phone: Office: 265051. Factory: 551997.

## DIARIES & EXERCISE BOOKS IANATA BOOK MFG. DEPOT

Manufacturers of FAMOUS



(Regd. Trade Mark) New Year Diaries, Exercise Books, Account Books & Allied Products

Sales Depot: 219, Abdul Rehman Street, Bombay-3 (BR) Phone: 325890.

Factory: T. J. Road, Sewree, Bombay-15 (DD) Phone: 445782. Trade Inquiries Solicited.

DIES & JIGS

## ARIFTA DIE & TOOL ENGINEERS

Soho House, Lohar Street, Bombay-2. Phone No. 310779.

Manufacturers of: Diesets (Ball bearing) Machine Vices, Universal Machine Lamps, Dowel Pins, Boring Heads, Tool Post Grinders, Press Tools and other tool room accessories.

DIES & JIGS

## KIV GROUP INDUSTRIES

Manufacturers of: Combination of Dies & Jigs to close accuracy.

Fabricators of: Precision Metal and Machine Parts to customer's drawings etc.

Address: Sua Mill Compound, Lower Parel, Bombay-13.

Grams: "KIVGROUP". Phone: 375103.

#### DIESEL ENGINES

Grams: "HEMMADY" T.F. 315. Phones:-Stores: 315. Office Res.: 399.

## D. N. HEMADDY & CO.

P.O. Box 39, Margao (Goa)

Authorised Dealers in 'KIRLOSKAR' Industrial & Marine Diesel Engines, Electric Motors, Pumps & Pumping Sets, Lathes & Machine Tools, WOLF & ROCKWELL Electrical Workshop Tools and Equipments, DUNLOP Industrial Rubber Products.

Also other General Machinery.

Branch at: Mapuca, Goa.

## DIESEL ENGINES & PUMPING SETS

## **ELVE BUSINESS CONTACTS** CORPORATION

Elve Chambers, Green Street, Fort, Bombay-I. Phones: 250074/75. Grams: "ELBUSCON".

Exporters of : quality diesel engines, pumping sets and

spare parts.

Importers of: Spare parts for diesel engines, tractors & automobiles, Selling Agents for KOMA brand fuel injection equipment, AUTO PISTONS for industrial diesel engines, L. G. brand components for Kirloskar type diesel engines and SAMO brand oil seals.

## DIESEL ENGINES & PUMPING SETS MFRS.

## KULKO ENGINEERING WORKS LTD.

Ichalkaranji Dist., Kolhapur

Manufacturers of: Imani Horizontal, Four Stroke, Cold Start, Medium & Low Speed engines from 5 HP to 13 HP and 5 HP Direct Coupled Pumping Sets on Trolley or Base Frame and 5 BHP Vertical Engines & Pump sets.

## DIESEL ENGINES & PUMPING SETS

"IAVAHAR" Standard Vertical Diesel Engines and Pumping Sets 5,6.5,7.5 BHP, 1500/1800 RPM Four Strokes Water Cooled and Air cooled.

Best of Agriculture

Manufacturers:

## JAVAHAR ENGINEERS PRIVATE LTD.

Shrirampur, Dist. Ahmednagar (Maharashtra)

## DIESEL ENGINES MFRS.

## H. T. C. DIESEL ENGINES PVT. LTD.

Manufacturers of :

H. T. C. Diesel Engines having a network of dealers and Distributors all over India.

Address: Beaumon Chambers, Nagindas Master Road, Fort, Bombay I.

Phone: 258119.

Grams: "HOTRACO"

Telex: 011-3242.

## DIESEL ENGINES & SPARES MFRS.

# AUTOMOBILES & ENGINEERING WORKS

59, Forbes Street, Bombay-1.

Manufacturers of:

Fuel Oil Filters, Air Cleaners, Exhaust Silencer, Fuel Tanks, Lubricating Strainers, Diesel Strainers, Gear Covers and also other Sheet Metal Products.

Grams: 'FULFAGARS'
Phone: { 254255 Office. 593226 Factory.

# DIESEL ENGINES, SPARES & FUEL INJECTION EQUIPMENT

# EVEREST ENGINEERING CORPORATION

12, Hornby View Building, Gunbow Street, Fort, Bombay 1.

Phone: 261691.

Grams : "EXPOCORP."

Specialists in Diesel Engines & Spares, Fuel Injection Equipment, Electric Motors, Small Engineering Tools, Workshops Machinery, Graphite Crucibles, Ball & Roller Bearings, Steel Shafting, Circlips, etc.

(Allied concern of Messrs. Khimandas Jagumal & Sons.)
Bombay & Agra.

## DRAWING OFFICE EQUIPMENTS

Artist's Materials, Surveying and Mathematical Instruments.

## **ALLIED DRAWING STORES**

Government Contractors & Suppliers, Sitaram Bldg., near Crawford Market, 29, Dadabhoy Naoroji Road, Bombay I.

Phone: 261403.

Grams : "ARTCORNER ".

## DRUMS, BUCKETS ETC.

## HINDUSTAN SHEET METAL WORKS

Manufacturers of :
DRUMS, BUCKETS & CONTAINERS

Address :

1076, Dr. E. Moses Road, Worli, Bombay 18.

Grams: "GELDRUMS".

Phone: 372820.

## DRY FRUIT MERCHANTS

## HIRALAL MAGANLAL & CO.

(Estd. 1917)

Wholesale & Retail Dry Fruit Merchants. Exporters & Importers.

Address: 395-97, Narsi Natha Street, Katha Bazar, Bombay 9.

Phones: { 324796 327695

Grams : "WALNUT ".

## DRY FRUIT MERCHANTS

## CHANDRAKANT MAGANLAL & CO.

Dry Fruit Merchants & Commission Agents.

Address: 395/397, Narsi Natha Street (Katha Bazar), Bombay-9.

Phones: \ \ \ \ 320656 \ 324796 \ 327695

Grams: "MAGANMEWA".

200

#### DUPLICATORS

## APEX ENTERPRISES

Manufacturers of: "EWAAT" Fully Automatic Inking and Automatic Paper Feed Duplicating Machines.

"EWAAT" Double Cylinder Electrically Operated machines.

G.P.O. Box 224, Bombay-1.

Phones: 266314. Factory: 691469.

Grams: "APEXRISES".

#### DYEING, PRINTING & BLEACHING COMPANIES



# & PRINTING WORKS

Office:
91, Shalimar, 'G' Road,
Marine Drive, Bombay-2.
Mills:
S. V. Road, Dahisar.

Bombay 68.

Associates of: Messrs. Rajmal Paharchand (See "Export, Import section"), Bombay.

## DYEING, PRINTING & BLEACHING COMPANIES

## NEW PRAHLAD MILLS LTD.

Atlas Mills Compound, Reay Road, Bombay 10.
Phones: Office: 297813, Factory: 378615

Grams: "AMRITMILL", Bombay.

Processors of Cotton Textiles & Man-made Fibres, Dyers, Bleachers, Mercerisers, Printers, Finishers etc.

Director: Tulsiprasad Khaitan.

Manager: G. G. Naravane,

Administrative Manager: D. K. Khaitan.

## DYES & CHEMICALS

# HOOSEINBHOY A. LALLJEE SONS

Importers of :

Dyestuffs (Sumikaron disperse, Sulphur Blue etc.)
Chemicals, Textile Auxiliaries, etc.

Exporters of:

Vegetable Oils, Oil Seeds, Oil cakes and miscellaneous, Navsari Bldg., D. Naoroji Road, Bombay I.

Phones: {262052. 264849.

Grams : "FLOWERMEAD"

## DYES & CHEMICALS MFRS.

## VAPSON PRODUCTS

Manufacturers of:

Dyes, Textile Chemicals, Auxiliary Products and

Cosmetics.

419A, Arun Chambers, Tardeo Road, Bombay-34.

Phone: Office: 373154.
Factory: 555654.
Grams: "VARIAMINE".

#### DYESTUFFS

# ASSOCIATED DYESTUFF INDUSTRIES

Manufacturers and Exporters of:—Quality Dyes.

Khadia Char Rasta, Ahmedabad-I

Phones: 24083, 78086, 25164. Grams: "DYESTRADE"

# DYESTUFFS GOLDEN DYES CORPORATION (INDIA) PRIVATE LTD.



Head Office: Bela Court No. 2, Colaba, Bombay-5. Factory: Hardas Nagar, Agra Road, Thana.

Manufacturers of Dyestuffs and Chemicals

Specialities: ACID, BASIC, DIRECT, REACTIVE, ACETATE
DYES AND OIL SOLUBLE & FOOD COLOURS.

Agencies and Branches in principal towns in India.

#### DYESTUFFS

## DYE-AZO PRIVATE LTD.

C-2/20, Industrial Estate, BARODA-3.

Makers of quality "Dyestuffs".

Manufacturers of:

Direct & Light Fast Colours & Reactive Colours.

## DYESTUFFS

## DYECHEM CORPORATION

Dealers, Representatives & Exporters of — DYESTUFFS.

Khadia Char Rasta, Ahmedabad-I.

Phones: 24083, 78086.

Grams: "DYESTRADE".

#### DYESTUFFS

## INDIAN DYESTUFF INDUSTRIES LIMITED

Manufacturers of:-Vat Dyes, Disperse Dyes, Dyes Intermediates and Aluminium Chloride Anhydrons. Mafatlal House, Backbay Reclamation, Bombay 20. Phone: 291199. Grams: "NAVICET". Factory at: Shahad, near Kalyan (Thana Dist.).

Managing Director: Shri Yogindra N. Mafatlal.

## DYESTUFFS



For TEXTILE PRINTING DURGAGEN COLOURS RECORD PRINTING COLOURS, DURGASOL FAST SALTS

(Developing salts)
Fast GARNET GBC BASE DURGACET

Manufactured by :

## **DURGA LABORATORIES**

(Estd. 1947)

Office: Harish Chambers, 313/319, Samuel Street, Bombay 3; 71, Bhandari Street, Vadgadi, Bombay 3; 73, Samuel Street, Bombay 3; 74, Bhandari Street, Vadgadi, Bombay 58.
(2) Ram Mandir Road, Goregaon (West), Bombay. Tele. Address: "DURGALAB", MANDVI.
Works: Tel. 572941 and 691374. Office: Tel. 321502,

## DYESTUFFS

## AMAR DYE-CHEM LTD.

(Manufacturers of Dyestuffs and Chemicals.)
"Rang Udyan", Sitladevi Temple Road,
Post Box No. 6471, Mahim, Bombay 16. Our production covers a wide range of groups (required by the textile, paper, leather, plastic, (required by the textile, paper, leather, plastic, paint and printing ink industries) such as Amarthols, Fast Colour Bases, Basic and Acid Dyestuffs of the Triphenyl-Methane Series, Pigment Printing Emulsions, Dry Pigments, the Hot and Cold Brands Reactive Dyestuffs (manufactured for the first time in India) under the brand name Amaryls, a series of Optical Brighteners, Organic Peroxides for the Plastic Industry and also Intermediates required by the dyestuff pharmacouties and eather industries and eather industries. the dyestuff, pharmaceutical and other industries.

#### DYESTUFF MFRS.

## RAINBOW TEXDYES CORPORATION

Pratapnagar, Baroda-4.

Phones: 3036/3762.

Grams: "RAINBOW".

Manufacturers of : Artexsols (Solubilised vat Dyes); Artexgens; Artex Fasts (Stabilised Azoles); Artex Vats (Vat Dyes); Artex Vat Pastes (Suprafix Pastes); Artex Vat M/F Powders (Colloidal Vat Powders); Artezols (Reactive Dyes).

®Registered Trade Mark

#### **ELECTRIC CABLES & WIRES**

## **BOMBAY INSULATED CABLES** & WIRES CO.

Stockists of:-Armature Winding Wires & Other Accessories for Winding purposes, V.I.R., C.T.S. also jointing material for Underground cables and its accessories. PILC/PVC underground cable. Address:-10, Himalaya House, Gr. Floor, 79, Palton Road, Bombay-I.

Phone: 261383. Grams: "BOMINWIRES".

#### ELECTRIC GOODS

## REMEX ELECTRICALS

49-51/7, Tardeo Air-Conditioned Market. Tardeo, Bombay-34.

We undertake planning and execution of all types of Industrial & Commercial Electrical Installations for H.T./L.T. sub-stations, overhead/underground systems, Power Factor corrections, etc.

Authorised Dealers for PHILIPS Lamps, Tubes, Lighting Equipment, Wires, Switchgears, Motor Starters,

Grams: "CRUCIGRAH"

Phone: 374761

## **ELECTRIC INDUSTRIAL EQUIPMENTS**



## INDIAN ENGINEERING CO.

Worli Naka, Post Box 16551, Bombay 18.

Grams: "AMPVOLT (JC)" Phones: 379544/45 & 374565. Also Calcutta, New Delhi, Madras, Bangalore and Hyderabad

Manufacturers & Suppliers of: Electrical Switches, Relays, Condensors, Terminal Blocks & various other Electro-Technical Components, Emergency Lighting Equipment, Rectifiers, Spot Welders & Test Equipment.

#### ELECTRIC GOODS

## BIPINKUMAR ELECTRIC CORPN.

Direct Importers of Everything Electrical.

Sole Selling Agents for:

VINOLEX CABLES V.I.R., C.T.S. & W/P. PHILCO Resin Cord Solder Wires. Post Box No. 2308.

14, Tavawala Building, Lohar Chawl, Bombay 2.

Phones: 311684, 312185. Grams: "BIPINDEV."

## ELECTRIC GOODS

**Everything Electrical** P.V.C. Wires, Switchgear Accessories, Lighting Fitting, Heating Elements, Special Lamps etc.

## G. K. TRADING COMPANY

46, Mohatta Market, Bombay I.

Phone: 315264.

## ELECTRIC GOODS

## LAXMI ELECTRIC TRADING CO.

Stockists of: Everything Electrical including "ALMONARD" Air Circulators and



brand Domestic and Industrial Type Electric Appliances.

21-23, Lohar Chawl, P.O. Box No. 2494, Bombay 2. Phone: 319048. Grams : " LEXELEC ".

#### ELECTRIC FURNACES

## HINDUSTAN BROWN BOVERI LIMITED

Manufacturers of:

Arc Furnaces upto 40 tons, Coreless Design Induction Furnaces, Induction Heating Installations & Cremation Furnaces. Also Importers of Brown Boveri Furnaces.

Sales & Engineering Division:

'Brown Boveri House', 264-265, Dr. Annie Besant Road, Worli, Bombay 25 DD.

Grams: "BROWNBOVER." Phone: 456365

### **ELECTRIC GOODS**

Phones: 264883, 266806. Grams: "BETWITCH." Telex: 011-3153.

#### RAVIN TRADING CO.

5, Mohatta Market, Palton Road, Bombay I.

Dealers in Everything Electrical, Specialist in H.T. & L.T. Underground Cables 'ALPYRO' flame-proof Cables. Tropodur, Wires, Switches & Motor Control Gears.

Branch: Mody Chambers, Dharmendra Road, Rajkot. Distributors for 'JYOTI' Motors, Pumps, Switch gears.

#### **ELECTRIC GOODS**

## METROGOLD ELECTRIC STORES

Sole Distributors for Getco Geysers and other appliances; Dealers in Hot Plates, Fans, Wires, Cables. Table Lamps, Conduits and Accessories.

60, Lohar Chawl, Bombay-2.

Phone: 315675.

Sales & Service.

## **ELECTRIC GOODS**

" ESSEN "

QUALITY ELECTRIC CONTROL ACCESSORIES Pilot Lamp Holders, Neon Jewel Lights, Micro Switches, Fuse Holder H.R.C. & DZ—Terminal Blocks & Strip etc.

For further Particulars Contact :-

## MESSRS, K. I. GVALANI

46, Mohatta Market, 1st Floor, Palton Road, Bombay I.

Phone: 263041.

## ELECTRIC GOODS

ASIATIC ELECTRIC CORPORATION Importers and Stockists of:

Electrical Goods. Sole Agents for India: HEIM Electric, Berlin C2, East Germany.
 Electroimpex-Sofia (Bulgaria).

Manufacturers of: Flame & Explosion Proof Electrical Installation Material.

Beauman Chambers, Ground Floor, Medows Street, Bombay-1.

251761. Phone: 1 256041.

Grams: "DHOOTBIJI".

#### **ELECTRIC GOODS**

#### ZENITH ELECTRIC STORES

Reliable House for Electrical Requisites.

Manufacturers of: "SUNRISE" Switchgears & Stockists of Fans, Lamps, Meters, Underground Cables & all other Industrial Items.

51, Lohar Chawl, Bombay 2.

Phone: 316198. Grams: "ALLANABANDA."

#### ELECTRIC GOODS MFRS.

## TENBY INDIA PVT. LTD.

Manufacturers of the well-known "TENBY PILOT" electrical accessories under license from the English Company.

Hamam House, Hamam Street, Bombay I.
Registered Office: Pondicherry.

Phones { Office : 314869 & 298571. Factory : 574034.

Grams: "TENBYINDIA", Bombay.

#### ELECTRIC GOODS MFRS.

## **GENERAL ELECTRICAL INDUSTRIES**

Manufacturers of: Bakelite "GEI" Brand Electrical Accessories.

Office :

Hamam House, Hamam Street, Bombay I. Phones: 314869 & 298571.

Factory:

113/B, New Prabhadevi Road, Bombay 28.

Grams: "TENBYINDIA", Bombay. Phone: 452626.

#### **ELECTRIC HEATING ELEMENTS**

## **BHARAT ELECTRICAL (SALES)**

Chowdhary Bidg., 'K' Block, Connaught Circus, New Delhi I.

All India Distributors for Escorts Eltra Tubular Heating Elements Oil, Water, Acids and Chemicals; Made in Collaboration with Eltra K. G. of Germany.

Phones: 44756 & 45267.

#### **ELECTRIC MOTORS & APPLIANCES**

Makers of Famous 'ANSONS' Electric Motors & Grindo-mix (Electrical Mixer-cum-Grinder).

'ANSONS' means quality.

# ANSONS ELECTRO MECHANICAL WORKS

248-252, Abdul Rehman Street, Bombay-3 (BR).

Phone: 324764. Grams: "GUIDANCE".

# ELECTRIC MOTORS MFRS. ASMOPAL ENGINEERING COY.

Manufacturing Engineers.

Manufacturers of:—Electric Induction Motors 3-ph. & I-ph., with ISI Certification Marks, D.G.S. G.D./
Tagai approved Mono-Block Water Pumps, Electric Bench Grinders.

Specialists in:—(i) Electrical Rewinding; (ii) Testing of (a) Boudon Gauges, Pressure Vessels, Cranes & Lifting Tackles under the Factories Act, (b) Earth, Meters & Instruments, Electrical Installations & Equipments. Head Office:—Sunder Mahal, 141, Marine Drive,

Head Office: —Sunder Mahal, 141, Marine Drive, Bombay 20. Telephones: —Office: 294533 & 298826. Telegram: —RAIVALUER.

Telegram:—RAJVALUER.
Factory: C/16-1718, Shri Ram Industrial Estate, Wadala,
Bombay 31. Telephones: 44-1373 & 44-1597/98.

## ELECTRIC MOTORS, GENERATORS & SETS

## HINDUSTAN BROWN BOVERI LIMITED

Manufacturers of:

3-phase A.C. Motors—1. Squirrel Cage Motors; 2. Slipring Motors; 3. Loom & Ring Frame Motors; 4. Two-speed Motors; 5. Crane Duty Motors, etc. with enclosures and mounting arrangements to meet with normal requirements.

Sales & Engineering Division:

'Brown Boveri House', 264/265, Dr. Annie Besant Road, Worli, Bombay-25 DD.

Phone: 456365 Grams: "BROWNBOVER."

#### ELECTRIC RESISTANCE WIRES

## ALL-INDIA ELECTRICAL ENGINEER-ING CO.

Dealers in :

Insulating materials, Winding wires, Kanthals, Nichrome, Eureka, Thermo-couple Resistance Wires. Address: Gopal Bhuvan, 199, Princess Street, Bombay-2 (BR).

Phone: 315047. Grams: "LEATHEROID."

# ELECTRIC MOTORS & SWITCHGEAR DISTRIBUTORS

## JYOTI CALOR-EMAG LIMITED

Sole Selling Agents of Jyoti Electric Motors, Starters, Circuit Breakers, Switchboards and Power Control Gear.

Regd. Office: Industrial Area, Baroda 3.
Phone: 8238. Grams: "JYOTICALOR".

Bombay Branch: "Advent", 12-A, Foreshore Road,
Opp.: Sachivalaya, Bombay I.
Phone: 213044
Grams: "IYOTICALOR"

Phone: 213044. Grams: "JYOTICALOR". Telex: JAYCEE BRD — 215.

Other Branches: New Delhi, Calcutta, Madras, Lucknow, Secunderabad, Jaipur, Patna & Bangalore.

## ELECTRIC SWITCHGEARS MFRS.

## KIRON TEXTILE INDUSTRIES

Yusuf Bldg., Mahatma Gandhi Road, Bombay-I.

Phone: 253224.

Grams: "YANTRAYUG".

Manufacturers of: L.T. & H.T. Electrical Switch and Controlgears, Switchboard Panels, Circuit Breakers, H.T. Gang operated Airbreak Switches, Drop out Fuses, etc.

## ELECTRIC SWITCHGEARS MFRS. HINDUSTAN BROWN BOVERI LTD.

Manufacturers of:

Motors, Transformers, Switchgear equipment upto and including 220 kV Airblast Circuit Breakers, 25 kV traction duty Airblast Circuit Breakers, Electric Furnaces, A.C.S.R. and A.A. Conductors. Importers of all products of BBC and their Concessionaires.

Registered Office: 'Brown Boveri House', 264/265, Dr. Annie Besant Road,

Bombay 25 DD.

Grams: 'BROWNBOVER' Phone: 456365

> Sales & Engineering Division Branches: All Over India.

Works: Baroda, Faridabad, Ghaziabad & Howrah.

# ELECTRICAL & AIR-CONDITIONING DEALERS & DISTRIBUTORS

## EMSON ENGINEERING CORPORATION

Dealers in:-Electric Appliances, Air Coolers & Water Coolers, Radios & Lamps, Refrigerators etc.

Address:-142, Rashtrapathi Road, Post Box No. 1573, Secunderabad-3.

Phone: 72232.

Grams: " EMFRIGID ".

#### ELECTRICAL CONTRACTORS (LICENSED)

# ELECTRIC CO. PRIVATE LTD

ENGINEERS CONTRACTORS & DEALERS IN ELECTRICAL & RADIO GOODS JAIL ROAD EAST, DONGRI BOMBAYS

PHONE NO. 331137 TELEGRAM :- WAVEBAND BOMBAY

#### ELECTRICAL GOODS

## COSMIC TRADERS

Yusuf Bldg., Veer Nariman Road, Bombay-I.

Phones: 253224, 254768. Grams: "YANTRAYUG"

Distributors for H.T. & L.T., P.V.C. & P.I.L.C. underground cables and wires.

#### **ELECTRICAL GOODS**

## B. NANDKUMAR BROS.

102, Kika Street, Gulalwadi, Bombay-4 BR.

Dealers in Everything Electrical.

Authorised Dealers in "SIEMENS" Electrical equipments.

Phone: 336811.

Grams: "PATELWORKS".

#### **ELECTRICAL GOODS**

## **B. B. ELECTRIC & AUTO STORES**

98, Princess Street, Bombay 2.

Phone: 311795.

Grams: "BIBIELECT".

Direct Importers of all types of Electrical Goods, Winding Wires & Insulating Materials.

Show Room: Peerbhoy Bldg., Pathak Wadi, Lohar

Trade inquiries invited.

## **ELECTRICAL GOODS**

## **AMERICAN ELECTRIC &** ENGINEERING CO.

Electrical Engineers, Importers & Stockists.

11/12, Himalaya House, Palton Road, Bombay-1.

Phone: 263575.

Grams: "AMERICTRIC"

## **ELECTRICAL ENGINEERS & CONTRACTORS**

## TRINITY ELECTRIC SYNDICATE

**Electrical Engineers and Contractors** 

154, Princess Street, Bombay 2 BR.

Phones: Office: 314201. Res.: 352997. Tel. Address: "SOLENOID". Agents: Felten & Guilleaume Carlswerk, Aktiengesellschaft, KOLNMULHEIM, Germany for Power, Telegraph, Telephone & Signalling Cables. Distributors for Cable Corporation of India Ltd., Bombay for Tropodur Wires and Cables and Paper Cables. Authorised Stockists: Larsen & Toubro Ltd. for LT/LK Motor Starters and Switchgear.

#### **ELECTRICAL ENGINEERS & CONTRACTORS**

#### HARSHAD & CO.

Electrical Engineers & Contractors,

Pavri House, 20, Gunbow Street, Bombay-1.

Contact for festival temporary illuminations lighting, Domestic and Industrial Power Installations

Phones: 264158, 260498.

# ELECTRICAL ENGINEERS, MFRS. & DEALERS IN ELECTRIC GOODS

## DEVIDAYAL STAINLESS STEEL INDUSTRIES PRIVATE LTD.

Stamping Division, Manufacturers of Stampings and Lamination for Motors, Generators and Transformers. Factory & Office: Devidayal Nagar, Kanjur Village Road, Bhandup, Bombay 78.

Phones: 582514-15-16.

## ELECTRICAL ENGINEERS, MFRS. & DEALERS IN ELECTRIC GOODS HINDUSTAN BROWN BOVERI LTD.

Manufacturers of: Motors, Transformers, Switchgear equipment upto and including 220 kV Airblast Circuit Breakers, 25 kV traction duty Airblast Circuit Breakers, Electric Furnaces, A.C.S.R. and A.A. Conductors, Importers of all products of BBC and their Concessionaires.

Registered Office: 'Brown Boveri House', 264/265, Dr. Annie Besant

Road, Bombay-25 (DD).
Grams: 'BROWNBOVER',
Sales & Engineering Division Phone: 456365 Branches: All over India.

Works: Baroda, Faridabad, Ghaziabad and Howrah.

#### ELECTRICAL GOODS MFRS.

## **DATTATRAYA INDUSTRIES** PVT. LTD.

Regd. Office: 691/A, Poona Satara Road, Poona-9.

Rego. Omce : o7//A, Poona satara Road, Poona-y.

Grams : DIPRO. Phone : 27116. Bombay Office : Sitaram Bldg.,
Dr. D. N. Road, Bombay-1. Phone : 26-3003. Grams : DATTA-INDUS. Manufacturers of : 'DI' Make Metal-Clad Weather Proof
Plugs/Sockets in range—2 pin to multi-pin. 5 Amps to 100 Amps
upto 500 Volts—Type—approved by Chief Inspectorate of Electronics, Ministry of Defence, Bangalore-6 for use in General Industrial
and various Defence equipments, Metal-Clad Switches, Overhead
Line Connectors, Lightning conductor Finials and other Electrical
products. e.g. Busbar Clamps, P G Clamps for ACSR & AAC Conductors, & Bimetalic Clamps to suit various sizes of Copper &
Alum. Conductors.

## ELECTRICAL INSTRUMENTS & METERS GYRO LABORATORIES PRIVATE LTD.

Manufacturers of :
INSTRUMENTS, CURRENT TRANSFORMERS, L. T. & H. T. POTENTIAL TRANSFORMERS, L. T. & H. T. CIRCUIT TESTERS FOR BLASTING (OHMMETERS), MULTI RATIO CURRENT TRANSFORMERS, HIGH PRESSURE TESTERS, WHEAT STONE BRIDGES, PHASE SEQUENCE INDICATORS, RELAY TESTING SETS, METER TESTING EQUIPMENTS. WE ALSO UNDERTAKE REPAIRING/SERVICING OF ALL KINDS OF ELECTRICAL MEASURING INSTRUMENTS.

8, GAZDAR STREET, THAKURDWAR, BOMBAY 2.

Telegrams: "GYROSTATIC." Phone: 315002.

#### **ELECTRICAL & MECHANICAL ENGINEERS** & DEALERS IN ELECTRIC GOODS

## KAYDEE ELECTRIC TRADING CO.

Nicholson Road, Delhi 6.

Phones: 227640 & 225320.

Grams: "KETCO-DELHI".

Approved Suppliers of all kinds of Electrical and Hardware Goods; Specialists in Porcelain High Tension and Low Tension Insulators.

#### ELECTROPLATERS

## SAIFEE ELECTROPLATING WORKS

Specialists in :

Electroplating in Chromium, Bright Nickel, Bright Zinc, Bright Cadmium, Silver & Barrel Plating.

139, Ibrahim Reh. Road, Bhendi Bazat, Bombay 3.

Phone: 335626.

## ELECTROPLATING MACHINERY & MATERIAL MFRS. & DEALERS

## MACHSONS PRIVATE LIMITED

40/B, Milan, 87, Tardeo Road, Bombay 34.
Phones: 372263, 372788. Grams: "MACHPLATE".

Manufacturers of: Metallic Cyanides, Double Cyanides, Electroplating Salts & Chemicals. Anodes of Silver, Copper, Zinc, Nickel, Tin & Cadmium. Brighteners of Zinc & Nickel. Degreasers, Sodium Stannate and Potassium Stannate.

## ELECTROPLATING MACHINERY & MATERIAL MFRS. & DEALERS

## MATHURADAS BROS. & CO.

76/78, Thakurdwar Road, Bombay 2 (BR)

Phone: 356374 & 351319 (Office). Grams: "PEERLESS"—Bombay.

Dealers in Electroplating Chemicals, Polishing Materials and Allied Equipments, Jewellery enamels, etc.

Leading Stockists for:

RONUK INDUSTRIES LTD., BOMBAY. Serving since 1943.

# ELECTROPLATING MACHINERY & MATERIAL MFRS. & DEALERS

## MITRA & CO., S.

Distributors for: Canning Mitra Phoenix Ltd., Manufacturers of Electroplating and Polishing Equipments and Materials.

Bachubhai Building, 187, Dadabhoy Naoroji Road, Fort, Bombay I.

Phone No. 26-2342. Grams: "MLUDESHI".

Branches at: 30, Bentick Street, Calcutta I; 17, Venkata Chelley Mudaly Street, Madras 3.

## **ELECTROPLATING PLANTS & CHEMICALS**

## GRAUER & WEIL (INDIA) LIMITED

Sukh Sagar, Sandhurst Bridge, Bombay 7.

Phone: 359581-2.

Manufacturers of:—Complete Plants for Degreasing, Anodizing, Electroplating, Hard Chrome Plating, Phosphating, Barrel Plating, etc. and Chemicals for Metal Cleaning, Electroplating, Anodizing, Metal & Plant Strippers, Plating on Aluminium & Plastic, Colouring & Oxidising.

#### **ELECTROPLATING PLANTS**

"BRITE-NIK" Metal finishing plants & Equipments for Electroplating, Anodizing etc. Trichloroethylene Degreasing Units, Thermosil Silica Heaters, Spray Booths, Oyens, P.V.C. Exhaust Fans, etc.

#### ARA PRIVATE LIMITED

41, Hamam Street, Bombay-1.

Tel.: 251675.

Gram : "TRIBUTE ".

## **ELECTRONIC COMPONENTS**

Semi Conductor Devices ★ Selenium Rectifiers ★ Electronic Tubes ★ Capacitors ★ Resistors ★ Potentiometer ★ Electro Magnetic Relays ★ Switches ★ Counters ★ Panel Instruments ★ Electro Mechanical Accessories ★ Transformers

Ask for free Price List



15, New Queen's Road, Bombay 4.

Grams: "DOMIRA"

Phone: 352298

#### **ELECTRONIC COMPONENTS**

#### ASIAN ELECTRONICS LIMITED

Regd. Office:

Handloom House, 221, Dr. Dadabhoy Naoroji Road, Fort, Bombay-I.

Phones: 266901/2 (Office) & 593368, 593861 (Works).

Manufacturers of: Electronic Components; Carbon Film Resistors, "STYROFLEX" Capacitor, Wire Wound Resistors and Ceramic Cores and Instruments in Collaboration with Messrs. ISKRA-KRANJ of Yugoslavia. Sole Distributors for: "ISKRA" Instruments for Electro Mechanics, Telecommunications, Electronics, Automation.

## ELECTRONIC INSTRUMENTS MFRS.

#### BEE & BEE

19, Bank Street, Bombay-1.
Phone: 297514.

All types of Instruments & Components.

Microscopes, Oscilloscopes, Multimeters, Ammeters, Voltmeters, Variacs, Rectifier Units, Battery-Eliminators, Battery Chargers etc. & Wire Wound Potentiometers, Fuses, Resistors, Terminals, Rectifier Stacks etc.

## ELECTRONIC INSTRUMENTS MFRS.

## **ELECTRONIC & INDUSTRIAL** INSTRUMENTS CO. PVT. LTD.

Factory & Regd. Office:

17-B. Sanatnagar, Hyderabad-18; 230/95, D. S. Phalke Road, Bombay 14; 30, Jawaharlal Nehru Road, Calcutta-16; 2-E-6, Jhandewalan Extn., New Delhi-55.

Mfrs. of Electronic Measuring Instruments.

## EMBROIDERY FABRICS MFRS.

## SHIV EMBROIDERY MANUFACTURING CO.

Office:

91, Shalimar, 'G' Road, Marine Drive, Bombay-2.

Mills :

S. V. Road, Dahisar, Bombay-68.

Associates of Messrs. Rajmal Paharchand (AARPEE) See "Commercial Firms", Bombay.

#### **EMBROIDERIES**

## FANCY CORPORATION LIMITED

16, Apollo Street, Bombay 1.

Phones: 251438 & 254714.

Manufacturers of

# hakoba

EMBROIDERED FABRICS

## **ENAMEL SIGNBOARDS**

Advertisement Signs, Danger and Caution Boards, Number Plates, Phase Plates for Transmission Lines, Cautionary Red Signs, House Number Plates, Gauge Plates for Canals, Name Plates, Notice Boards etc.

#### THE PIONEER ENAMELLING WORKS

24, Lakshmi Building, Sir P. M. Road, Bombay I. Post Box 1130, Bombay 1. Phone: 26-3464.

## **ENGINEERS & CONTRACTORS** GAMMON INDIA LTD.

Designing & Constructional Engineers & Contractors. Specialists in: Bridges, Cooling Towers, Water Towers, Harbour Works, Chimneys, Silos, Dams, Jetties & Airports, Hangars, Power Stations, Factories, Earth Works, Foundations, Pilling, Weirs, Syphons, etc. Registered Office: Gammon House, Veer Savarkar Marg, Prabhadevi, Bombay 25-DD. Board of Directors:—J. C. Gammon (Chairman), James

Bates, S. B. Dabke (Jt. Managing Directors), L. R. Patel, R. N. Banerjee, T. N. S. Rao, S. D. Pinge,

V. M. Correa, Assistant Secretary.
Representing: Colcrete Ltd. (U.K.) — Colcrete Grouting Equipment.

Foreign Consultants: Gammon Services Ltd. (U.K.).

## **ENGINEERS & CONTRACTORS** NEW CONSOLIDATED CONSTRUCTION CO., LTD.

Engineers and Contractors, Authorised stockists of "EVEREST" Asbestos Cement Products, Fibreglass Crown Wool, and Formica Laminates.

Regd. Office: Rahimtoolla House, Homji Street, Fort, Bombay.

Phones: 258417 (3 lines), 258343.

Sales Depot: 82, Bhajipala Lane, Bombay 3.

Phone: 323998. Grams: "PROJECTS." Chairman: A. A. Jasdenvala. General Manager: Abbas Y. Jasdanwalla.

#### **ENGINEERS & CONTRACTORS**

## SEWRI ENGINEERING CONSTRUCTION CO., PRIVATE LTD.

Civil Engineers Designers Constructional Engineers, Office: Savoy Chambers, West Wing, Wallace Street, Fort, Bombay I (BR). Phone No. 26-3941 (2 Lines). Post Box No. 319, Bombay I (BR). Tel. Address: "TIROD." Bombay, Godown: 222, New Sewrl Road, Cotton Green, Bombay 33. Phone No. 441485. Mg. Director: C. V. Deshpande, B.E., F.I. Struct. E. (Lond.), F. Am, Soc. C.E., M.I.E. (Ind.), C. Eng., F.R.S.H.

Technical Directors: P. R. Tongaonkar, B.E., M.I.E. (India) and S. C. Deshpande, B.Sc. (Eng.) Lond., M. Phil. (Lond.).

Technical Consultant : D. P. Karnik.

Engineers: M. J. Padwal, B.E., H. J. Mantry, R. T. Pawar, B.E., R. G. Vagholikar, B.E., A. H. Supnekar, B.E., R. R. Kotwal, B.E., V. N. Bhat, B.E.

#### **ENGINEERS & CONTRACTORS**

#### WESTERN AGENCIES COMPANY

Sukhsagar Building, Hughes Road, Bombay 7.

Phone: 352580. Grams: "WESTCOY."

Engineers, Manufacturers' Representatives for RADIO, T. V., Electronic Components, Electronic & Communication Equipments and Instruments.

#### **ENGINEERS & CONTRACTORS**

## CONTINENTAL CONSTRUCTION PRIVATE LTD.

Engineers & Contractors, E-II, Defence Colony, Ring Road, New Delhi-3; Phones: 625525, 626463, 626468. Directors: C. L. Verma, S. S. Basi, C. P. Misra, Basant Singh, Girdhari Singh.

## **ENGINEERS & CONTRACTORS**

## KAMANI ENGINEERING CORPORATION LTD.

Kamani Chambers, Nicol Road, Ballard Estate, Bombay I-BR. Phone: 268261. Factory & Sales Office: Lal Bahadur Shastri Marg. Kurla, Bombay 70 AS. Phone: 555561. Manufacturing: High Tension Transmission Line Towers, Radio & Communication Masts, Sub-station Structures, Railway Track Structures, "Tractamount" Road Rollers, and Importers of Light, Medium & Heavy Electrical, Hydraulic & Industrial plants & machineries, Railway Equipments, Locomotives, Rolling Stock, Dredgers, Harbour Cranes, Excavators, Conveyors, Switchgears, Transformers, Diesel & Thermal Power Plants, H. T. Insulators, Ground Wire & other Transmission Equipments, etc. Managing Agents: Kamani Brothers Private Ltd.

## **ENGINEERS & CONTRACTORS**

## HIND TANK MANUFACTURING CO.

Structural Engineers & Contractors

Specialists in : Plant & Machinery Designing & Fabrication & Storage Tanks.

Address: Trimbak Parsaram Street, Bombay 4.

Phones: 331845, 333214. Grams: "INDUSPLANT"

## **ENGINEERS — CONSULTING**

## CHEMICAL & METALLURGICAL DESIGN CO. (P) LTD.

A-60, Kailash, New Delhi-48.

Specialists in Chemicals, Petro-chemicals, Pulp & Paper, Man-Made Fibres, Fertilisers, Hydrometallurgy, Mining Geology, Metal Rolling and Forming, Technoeconomic Studies, Process evaluation, Project engineering and advanced engineering techniques.

Telex: 031-7442. Phone: 79106 (5 Lines).

#### ENGINEERS & DESIGNERS MFRS.

# SMIDTH, F. L., & CO. (BOMBAY) PVT.

Engineers, Manufacturers and Designers of Cement Factories.

Eros Cinema Building, 124/D, Maharshi Karve Road, Bombay 20.

Grams: "FOLASMIDTH." Phone: 295796.

## ENGINEERS & MACHINERY MFRS.

## INDUSTRIAL MANUFACTURERS

Alliance Building, 94, Nagdevi Street, Bombay 3.

Phones: 324745, 451998, 452239

## Specialists in:

Making Machine Keys of all varieties, Parallel, Both end round, Woodruff, Gib-head and Taper as per B. S. S. and I. S. Specifications.

## **ENGINEERS & MACHINERY MFRS.**

## MARSHALL, SONS & CO. (INDIA) LIMITED

(Engineers)

Mechanical, Electrical and Agricultural Machinery.

Registered Office: 33/1, Netaji Subhas Road, Post Box No. 22, Calcutta-1. 'CRYSTAL', 79, Dr. Annie Besant Road, Post Box No. 6569, Worli, Bombay 18.

Offices at :-Calcutta, Madras, New Delhi, Dibrugarh, Lucknow, Bhubaneswar, Raipur, Patna, Bangalore, Siliguri.

#### **ENGRAVERS & DIE-SINKERS**

## MANKAME BROS.

Engravers

405, Kalbadevi Road, Bombay 2.

Phone: 313960

Manufacturers of: Leaver Presses for Limited Companies, Brass Name Plates, Peon Badges, Brass Seals, Rubber Stamps, Steel Punches, Biscuit Dies, Soap Moulds & Engraving of all sorts.

## **ENGINEERS & MACHINERY MERCHANTS**

## SORABJI & CO.

Engineers and Machinery Merchants.

Distributors for: Crompton Motors, Pumps, Fans, Lamps, Fenner V Belts, Ringsdorff Carbon Brushes.

Sir Jamshed House, 166, Bora Bazar Street, Fort, Bombay I.

Phone: 262036. Grams: "FIELDCOIL," Bombay.

## **ENGINEERS & MACHINERY MERCHANTS**

## UNITED INDIA ENGINEERING CO.

6, Commerce House,

140, Medows Street, P.B. No. 1571, Bombay 1.

Phone: 251492. Grams: UNICONARAM.

Authorised dealers of KIRLOSKAR electric motors of all types and Starters, Diesel Generating-sets upto 130 KVA, MEI make starters and OCB, Diesel and Electric pumping-sets, Diesel and Electric driven welding plants, Owners of "UNITED" Welding Transformers and "UNITED" Centrifugal Blowers.

#### ENGINEERS & MACHINERY MFRS.

## ERUCH D. ENGINEER & CO.

Importers & Exporters.

Dealers: Oil Engines & Spares, Machine Tools, Dairy Equipments, Pumping Sets, Rice Hullers, Flour Mills, Electric Motors & Generators.

Agents for: CROSSLEY-PREMIERS ENGINES LTD., Mfg. Diesel & Marine Engines & Spares.

Crossley House, Apollo Street, Bombay.

Phone: 251876. Grams: "OILENGINES".

## **ENGINEERS & SHIP REPAIRERS**

# MODERN MECHANICAL & MARINE WORKS

Ship Repairers and Engineers

93, Marine House, Dongri Bridge, Bombay-9

Phones: 331319 & 332823

Grams: "MARINELUCK"

#### **EINGINEERING GOODS**

#### N. MOHANLAL & CO.

Dealers in :

DUNLOP belting, hoses, V-belts, trolley wheels; HINDUSTAN FERODO'S asbestos packing, jointing sheets, mill boards; DOWIDAT spanners, wrenches, pump pliers and mill stores, pipe fittings.

124, Nagdevi Street, Bombay 3.

Phone: 322545. Grams: "JEPIBELT".

Resi. Phone: Mohanlal 358896.

# ENGINEERING GOODS SUPPLIERS CENTRAL TOOL & EQUIPMENT COMPANY

Suppliers of :

Neoprene Petrol Hoses, C.I. & C.S. Valves, Oil Gauging Tapes, Forged Steel Flanges & Fittings and all Engineering Stores for Refineries

32, Sarang Street, Bombay 3.

Phone: 325984. Grams: "CENTREC".

## ENGINEERING STORES



MAYANK Stauffer type Grease Cups

Manufacturers:

## DEEPAK INDUSTRIES

26B, Udyognagar, Rajkot-2.

Trade Inquiries:

MERCER MACHINE TOOLS AGENCY 63-69, Nagdevi Cross Lane, Bombay-3. Phone: C/o 322456. Grams: C/o "MONKEYGRIP".

#### **ENGINEERING TOOLS**

## **BOMBAY HARDWARE TRADERS**

79, Narayan Dhuru Street, Masjid Bunder Road, Bombay-3.

Phone: 327153. Grams: "SISTACHAR".

Authorised Distributors for 'John Baker' 'Hindustan' Scissors brands Steel Files, Nettlæfolds Screws, Bolts and Nuts, every kind of saws, measuring and Precision Tools, and other Hardware materials.

#### **ENGINEERING TOOLS**

# BOMBAY TOOLS SUPPLYING AGENCY



50, Nagdevi Cross Lane, Bombay 3.

Direct Importers & Stockists of:

Machine Tools, Precision Tools, Measuring Instruments
Etc.

Phone: 321326.

Grams : "TERRATOOLS ".

### **ENGINEERING TOOLS**

## BARODA ELECTRIC METERS LTD.

Vallabh Vidyanagar, Via Anand, Gujarat.

Specialists in: Design and Manufacture of PRESS TOOLS, MOULDS, JIGS and FIXTURES.

Phone: 36, Vallabh Vidyanagar.

Grams: "POLYPHASE".

#### **ENGINEERING TOOLS**

# HINDUSTAN TOOLS & HARDWARE MART

Importers & Stockists of : Engineering Stores, Tools & Hardware.

Office: 126, Lohar Chawl, Bombay 2.

Phone: 310666. Grams: "FAKIRSAI".

## **ENGINEERING TOOLS**

## HEMANT TOOLS TRADING CO.

Importers of: Engineering Tools, Metal Cutting Tools, Precision Tools, Garage Tools, Fibre Sheets & Rods, Chain Pulley Blocks, Worm & Spur Gears, Spanners & Wrenches.

Stockists of: DOWIDAT handtools, MIRANDA Metal Cutting Tools, SEIKO Lathe Centre, PITTIE Quick Change Chucks & SWAN Hacksaw Frames.

33. Bibijan Street, Bombay 3.

Phone: 321174. Grams: "LACING".

### **ENGINEERING TOOLS**

# BOMBAY TOOLS & HARDWARE MART

123, Narayan Dhuru Street, Bombay-3.

Stockists and Dealers of Engineering Tools, Mill-gin Stores, Crucibles, General Hardware etc.

Phone: 327122.

Grams: "BOTAPS".

## ENGINEERING TOOLS MFRS. & SUPPLIERS

## ASIAN TOOLS TRADING CO.

Stockists of: 'Maxicut' Carbide Tipped Tools & 'Wimet' Carbide Tips.

Regd. Office: C-2, Sikkanagar, V. P. Road, Bombay-4.

Sales Office: 24, Nagdevi Cross Lane, Bombay-3 (BR).

Phone: 329833.

#### **ENGRAVERS & DIE-SINKERS**

## MASANI & CO.

Engravers, Specialists in Embossed Letter Heads and Cards; Manufacturers of Steel, Brass and Rubber Stamps & Dies

Ararat, 89-C, Medows Street, Fort, Bombay-1.

Phone: 252545

## **ENVIRONMENTAL TEST EQUIPMENTS**

#### HEATEX PRODUCTS PVT. LTD.

11, Bank Street, Fort, Bombay-1 (BR).

Phones: 252518, 315958. Telex: 011-3433.

Grams: "FLUIDRIVE".

Indentors of all types of Environmental test equipments, Perfect Ovens, Electronic instruments, equipments, and components for Research, Industries and Education.

#### ESSENTIAL OILS

**Aromatic Chemicals, Industrial Perfumes** 

# AROMATIC PRODUCTS & CHEMICALS PVT. LTD.

42, Prospect Chambers Annexe,

Dr. Dadabhoy Naoroji Road, Bombay-I.

Phone: 257991. Grams: "DISCOVERY"

#### ESSENTIAL OILS

## FIDAALLI ABDULRASUL ATTERWALLA & CO.

(Estd. 1890)

12-14, Mirza Street, Parsi Gali, Bombay 3.

Phone: 326341. Grams: "PALMAROSA".

Manufacturers & Exporters of : Palmarosa Oil and other essential Oils.

## EXERCISE & ACCOUNT BOOKS MFRS.

## ROTAPRESS PVT. LTD.

Manufacturers and Exporters of "Bul-Bul" & "Myna" B, and Exercise Books and Printers of Packaging Paper in Reels and Sheets.

Rahimtoola House, Homji Street, Fort, Bombay-I.

Phone: 258343. Grams: "TARPO".

Sales Depot: 82, Bhajipala Lane, Bombay-2.
Phone: 323998.

## EXERCISE & ACCOUNTS BOOKS MFRS.



TRADE

MARK

## RAJAT STATIONERY MART

Manufacturers of:
EXERCISE & ACCOUNT BOOKS
83, Abdul Rehman Street, Bombay 3.
Phone: 326707.

#### EXPANDED METALS

## METAL PERFORATORS

Manufacturers of :

All kinds of Expanded Metals in different Mesh and Gauges.

43, Abdul Rehman Street, Bombay-3.

Phone: 325837.

#### **EXPANDED METAL & WIRE NETTING**

## FAKHRUDDIN & CO.

43, Abdul Rehman Street, P.B. No. 3066, Bombay-3. Phones: 325837, 322725. Grams: "WOODPLY". Stockists of Okal Board, Plastic Laminated Sheets, Insulating Boards, "Anchor" Novateak Asbestos Electrical Insulatings for Arc and Heat Resisting Sheets, Tempered Press Boards, Plywood Block Boards, Asbestos Cement Sheets, Veneer, Decorative Teak Plywood, Expanded Metals, Perforated Metal Sheets, Welded Wire Mesh.

#### EXPANDED METAL & WIRE NETTING

#### INDIAN HARDWARE CO.

Bhabha Building, 151, Princess Street, Bombay 2.

Dealers in: Wire Gauze, Hex. Wire Nettings, Chain Link Fencing, Crimped Wire Net, Panel Pins, Barbed Wire & Other Wire Products & Expanded Metals, Welded Mesh etc. Agents for: Swiss Welded Mesh Co. Pvt. Ltd., Madras, for their Welded Mesh & Fabrics, for the States of Maharashtra, Gujarat & Goa.

Phone: 319904. Grams: "WELDED WIRE".

**EXPORTERS & SUPPLIERS** 

## CHANRAI UTAMCHAND

93, Queen's Road, Bombay 20.

Phone: 292725. Grams: "FOUNDATION".

Exporters and Suppliers of: All kinds of Cotton Textiles, Handwoven "BUDDHA" 100% purg Silk & Tassar Silk for Dress Material, Scarves and all kinds of merchandise.

#### FELT, FILTER CLOTH, MACHINERY CLOTH & INDUSTRIAL CLOTH

Woollen, Cotton, Nylon, Terylene & All Man-made Fibres available in Woven, Compressed & Endless in various Thicknesses for Filtering, Packing, Lining Foundation etc. Mfgrs.: Washers Seals, Bobs, Mops, Strips, Cord, Elements etc. as per Specifications . . . .

Please Contact:

## THAKER VALLABHDAS SAMJI

32, Dubash Market, Sheikh Memon Street, Bombay 2 BR.

Phone: 328547.

Grams: "THAVASHA".

#### FERROUS & NON-FERROUS METALS

## MONTANA PRIVATE LTD.

Regd. Office :

Rahimtoola House, Homji Street, Bombay-I

Ferrous & Non-ferrous Metals Detinners and Exporters of Detinned Scrap.

Phone: Head Office: 258343, Refinery: 375715

Grams: "MONTLIT"

Chairman: Mr. Y. A. Jasdanwalla.

#### FERTILISERS

## CHEMBUR BONE & FERTILISER CO., PVT. LTD.

Darabshaw House, Ballard Road, Bombay 1.

Phones : { Office : Factory :

263839. 521821.

Grams : "BYPRODUCT."

#### FIBREGLASS

## JHAVERI THANAWALA PVT. LTD.

47, Tamarind Lane, Fort, Bombay-I BR.

Manufacturers of : Fibreglass Tapes, Sleevings, Cloth, Flexible Cables, Cords (Twisted & Braided), Mica Sandwich, Glass Mica Tapes, Laminated Sheets & Tubes.

Grams: 'ENGINEROPE'.

294047 318611 Phone : 290104

Representative: 2, Jawaharlal Nehru Road, Calcutta-13.

#### FILTERS

## H. J. LEACH & COMPANY

Post Box No. 899, Asian Building, Nicol Road, Ballard Estate, Bombay-1.

#### FILTERS

For Fuel Oil, Lubricating Oil and Air of I.C. Engines and for Industrial purposes.

Diesel and Steam Power Plants from 5 kW to 5,000 kW.

#### **ENQUIRIES SOLICITED**

#### FIRE BRICKS & REFRACTORIES

Asbestos, Standard size Fire Bricks, special size Fire Bricks, Insulation Bricks, Acid Proof Bricks, Fire Cement, Fire Clay, with High Alumina and High Temperature.

Available from ex-stock at most competitive rate.

## MAHAVIR REFRACTORIES CORPORATION

133, Princess Street, Gopal Nivas, 2nd Floor, Bombay 2. Phones: Office: 311939 & 311742, Res.: 352414 and Godown: 379288.

Agents for : Messrs. Andhra Pradesh Mining Corpn. Ltd. (A wholly State Undertaking): Messrs. India Firebricks & Insulation Co. Ltd. (In collaboration with Messrs, Thomas Marshall & Co. Ltd., England); Saurashtra Ceramic Industries.

## FIRE BRICKS & REFRACTORIES

## J. CHANDRAVADAN & CO.

53, C. P. Tank Road, Bombay 4.

Stockists of : A.C.C. Fire-Bircks-Clay, Accoset-50 Accord Firecrete, Firecrete Super Accoproof.

Grams : "COLORSTONE ". Phone: 334403.

## FIRE BRICKS & REFRACTORIES

## NOWROJI N. VAKIL & CO.,

Pottery Works

Naroda Road, Ahmedabad.

Monufacturers of: Stoneware Drainage Pipes, Fire Bricks and Clay Refractoryware, Rasching Rings etc. Bombay Office: Sharu Castle, Mohamedally Road, Bombay-3; Phone: 322803.

#### FIRE PROTECTION ENGINEERS

HOME-AUTO FIREX costing only Rs. 75.00 saves Life & Property in the Home and in the Car

Contact: FIREX SALES & SERVICE
BOMBAY 34 DELHI 7 MADRAS I

Phone: 371276 220368 22460

BHAVNAGAR I AHMEDABAD I COCHIN 2

Phone: 3688 24464 25040

Phone: 6872

PATNA 22401

Manufacturers:

KOOVERJI DEVSHI & CO. PVT. LTD.

164, Lohar Street, Bombay-2.

FIRE WORKS MFRS.

**SHAMA FIRE WORKS INDUSTRIES** 

Manufacturers of: Fancy Fireworks which BEAT the BEST. Our Brands: SWAN, SHAMA, BABA, Etc. Etc. Head Office: Acharya Kripalani Road, P.O. Box No. 39, Jalgaon (MS).

Phones: 193 Factory; 305 Residence.
Grams: "SHAMA".

B.O. 142, Samuel Street, Bomay 9 (BR).

Phone: 325521.

Grams : "PHULJHARI".

Always use SHAMA'S Fireworks for Joyous Festivity.

FIRE WORKS MFRS.

DADA FIRE WORKS PRIVATE LTD.

(Inc. 1953).

H.O. 240/42, Juma Masjid, Bombay-2.

Phone: 325662. Grams: "DADASPARKS (K.B.)."

Manufacturers and Exporters of: "Dada" Sparklers &

Crackers; Factory: Dadanagar, Fursungi, Taluka

Haveli, Dist. Poona.

FISHING REQUISITES

MAHARASHTRA FISHING MATERIAL CO.

23, Bhandari Street, Bombay-3.

Phone: 326571.

Grams: "FISHNYLON".

Dealers in : All kinds of Fishing Requisites.

Sole Distributors of: Garware Nylon Fish-net Twine for Maharashtra State and Sub-Agents for 'SUNLETT' Fishing Floats.

## FLASH LIGHTS, TORCHES, BULBS & BATTERIES

## UNION CARBIDE INDIA LTD.

Manufacturers of:— 'EVEREADY' Products.

Lakshmi Bldg., Sir Phirozshah Mehta Road, Fort,

Bombay 1.

Phones: 264521 & 264522.

Grams: "EVEREADY".

#### FLOOR TILES MACHINERY

## HYDRAULIC

Machinery, Cement Floor Tiles, Floor Polishing Machines, Moulds, etc.

Manufacturers:

## SADHANA ENGINEERING CO.

220-G, Khadilkar Road, Bombay 4.

Phones { Office : 355639. Factory : 574916.

#### FOOD COLOUR MFRS.

"WEIKFIELD" — Supra Harmless Food Colours, Tartrazine WP, Poncean WPU4, Carmoisine WP etc., and WEPCOL Permitted Harmless Food Colours Mixtures.

ZX Series in Il Colours XXX Series in 3 Colours

Manufactured for the first time in India strictly conforming to prevention of Food Adulteration Rules Available in 500 Grams and 125 Grams Sealed Tins. Write for particulars:—

## WEIKFIELD PRODUCTS CO. (INDIA), UNIT 4

Weikfield Estate, Poona-14, India.

FORGINGS & CASTINGS

## BHARAT FORGE CO. LTD.

Mundhwa, Post Box 57, Poona-1.

Phones: 25351/2/3,

Telex 234.

Largest Manufacturers of:
All kinds of Forgings.

## FOUNTAIN PENS DEALERS & STATIONERS



## **ENAYATALI & CO.**

262-264, Abdul Rehman Street, Bombay-3

Dealers in all Famous makes Fountain Pens, inks and Spare Parts including 'ENACO' Fountain Pens, Inks, Gum, Carbon Papers & Stationers.

Phone: 321769.

Grams: "ENAYAT".

#### FOUNTAIN PEN MFRS.

## WATUMULL INDUSTRIES PVT. LTD.

Manufacturers of:



QUALITY FOUNTAIN PENS, BALL PENS & REFILLS "Delstar", 1st Floor, 9-9/A, Hughes Road, Bombay 26 WB.

Phones: 354425 (Factory: 573912).
Grams: "KHUBBROS".

## FOUNTAIN PENS & BALL PENS

## GENERAL PEN AGENCIES

41, Kaushalya Bhawan, Sadar Bazar, Delhi.

Sole Distributors for Planet and Ambassador Pens and Ball Pens, Gold Medal Latex & Rubber Bands; Stockists — Best Ball Pen refills.

Phones: 221172 & 220493.



FURNISHING FABRICS

## LUXURY CARPETING—WALL TO WALL

- \* cut-n-lay \* tufted all wool
- \* latex coated non slip \* shades galore

For contemporary furnishings



CONNAUGHT PLACE, NEW DELHI

#### FURNITURE

### MINERVA FURNITURE WORKS

Furnishers and Interior Decorators, Painting Contractors, Dealers in Electric Fittings Venetian Blinds, Iron Grills and Shutters, Complete Home & Office Furnishing — Authorised Dealers in Dunlopillo Cushions, Salva Mattresses, and Azok Folding Chairs — Also Furniture on Hire.

67-71, Queen's Road, Opp. Marine Lines Station, Bombay 2.

Phone: 319708.

## FURNITURE DEALERS & MANUFACTURERS

## PREMIER FURNISHING & DECORATING PVT. LTD.

'LA MAISON' — Interior Decorators, Furniture Manufacturers & Hirers and Stockists of 'Dunlopillo'.

7, Brabourne Stadium, Veer Nariman Road, Bombay-20.

Phone: 295632. Showroom: 'ARUN CHAMBERS', Main Tardeo Road, Tardeo, Bombay-34.

## **GALVANISERS**

### SOLEM HARDWARE MART

155, Nagdevi Street, Bombay 3.

Phones: 326896 & 326173. Grams: "QUICKFIRE".

Works: 50, Nesbit Road, Bombay 10. Phone: 373909. Galvanising carried out on all kind of mild steel and Cast Iron Products very efficiently by hot Dip Process and to B.S.S. & Admiralty Specifications. Also Government & Railway Contractors.

### **GARDEN REQUISITES**

## DATTATRAYA INDUSTRIES PVT. LTD.

Regd. Office: 691/A, Poona Satara Road, Poona-9.
Phone: 27116. Grams: DIPRO.

Bombay Office: Sitaram Bldg., Dr. D. N. Road, Bombay I. Phone: 26-3003. Grams: DATTAINDUS. Manufacturers of 'DI' Make 'DIPRO' Spray Pumps, 'KLINKUT' Secateurs, Garden Tools, Adjustable Hose Nozzles. 'RAINBOW' Patented Adjustable Lawn Sprinkler, 'JALDHARA' low pressure Sprinkler & Sprinklers for Kitchen Gardening and 'YASHODHARA' Sprinkler Head for Agricultural Irrigation.

### **GARDEN REQUISITES**

## PALEKAR & CO.

(Estd.: 1870)

Famous for: Flower & Vegetable seeds, Nursery Plants, Garden Lay-outs, Lawn Mowers, Garden Tools, Insecticides & Fertilizers.

Address: Sitaram Bldg., Near Crawford Market,

Bombay 1.

Grams: "RUDRA".

Phone: 262236.

### **GAS & COKE FACTORY**

## BOMBAY GAS CO., LTD.

Administration, Finance offices and Show Room: Empire House, 214, Dr. Dadabhai Naoroji Road, Bombay I.

Grams: "CRISTOLITE". Phone: 267391 (5 lines)

General Manager & Secretary: S. Chowdhary.

Works :

Chinchpokli, Parel, Bombay 12. Phone: 442411 (4 lines)

#### **GEARS**

## PRECISION GEARS PVT. LTD.

Regd. Office:

Tiecicon House, Dr. E. Moses Road, Bombay-11. Grams: "PIJIAR", Bombay-6. Phone: 377381.

Factory:

B/16, Industrial Estate, Indore (M.P.). Phone: 33672. Grams: "PIIIAR".

Manufacturers of :

Gears (Helical, Spur & Worm), Rivets (solid, semitubular and tubular for brakelinings, automobile body building, etc. from ferrous and non-ferrous metals) and Silver Contacts.

### **GEARS**

## **GAJRA GEARS**

Elve Chambers, Green Street, Fort, Bombay-I.

Phones: 250074/75. Grams: "ELBUSCON ".

Works: Station Road, Dewas (M.P.).

Manufacturers of : All types of Precision Gears Spur. Helical, Spiral internal & external, Worms, Worm Wheels etc. upto 32" diameter. Also on the approved list of The Association of All India State Road Transport Undertakings.

#### GEARS

Of all types manufacturers of:

SPURS SPIRALS HELICALS BEVELS CHAINS PROCKETS

On Precision Milling Machine & Hobbing Machine as per your drawing or teeth cutting only on your Blank. Specialist in: All kinds of Worms & Worm Wheels. Work undertaken in any capacity over "Hobbing Machine".

For Particulars Please Contact:

## SUPREME INDUSTRIAL WORKS

196-K, Gaiwadi, Girgaum, Bombay 4

Phone: 355189

#### GEAR BOXES

PIV GEAR BOX CHAIN

'ACME' INDIGENOUS MAKE. Suitable for GERMAN, ENGLISH & CZECHOSLOVAKIAN GEAR BOXES.

Manufactured by :

## ACME ENGINEERING CO.

16/2, Shanker Bari Lane, Chira Bazar, Bombay-2 BR.

#### GENERAL MERCHANTS & COMMISSION AGENTS

## CHANDULAL & CO., KATHAWALA

Deålers in Coir String, Fibre, and Ropes, Sisal and Manila Ropes, Jute Spurn Yarn, Rubber Hose Pipes, Coal Tar, Pitch, Hardwares & General Merchants and Commission Agents.

11, Kazi Syed Street (Shak Galy), Bombay-9.

Phone: 325598. Grams: "CORDCOIR".

### GLASS (SHEET & PLATE)

## MAHOMEDALLY VALIJI ARSIWALA

76, Abdul Rehman Street, Opp. State Bank of India, Bombay 3.

Phone: 325900

145, Jamli Maholla, (Bapu Khote Street), Bombay 3. Phone: 332467

Direct Importers and Dealers in all kinds of Glasses, Plywood and Picture Mouldings; Government & Railway Contractors, Godowns at 2/4, Temkar Street, New Nagpada, Bombay 8 and at 145, Jamli Maholla, (Bapu Khote Street), Bombay-3.

#### GLASS

## SAMIR GLASS TRADERS

Dealers in :

All kinds of Sheet and Plate Glass, Figured, Wired, Safety, Vetrolite, Opaque Glass and Mirrors, Hard Board and Glass Cutters. Specialists in welding glasses.

21-23, Dhanji Street, Parsi Gally, Bombay-3.

Gram: "SAMIRGLASS"

[ Phone : 326785 522778 Resi.

#### GLASS

## **KESHOWDAS HASSANAND** KARACHIWALA

Direct Importers & Stockists of : All kinds of Sheet & Plate glass, Wired glass, Vitrolite glass, Figured glass, Safety glass, Silver Plate glass, Glaziers, Motor glass etc.

Stockists of : Indian Make Glass Cutters "WINDSUN" Brand.

Address: 256, Yusuf Meherally Road, Bombay-3.
Grams: "KESHOGLASS"

Phone: 321855 Office.

471641 Residence.

#### GLASS

## M. A. KACHWALLA & SONS

97-99, Dhanji Street, Bombay 3.

Phones: \{\} 324395 \\ 327841

Grams: "DIADEM ".

Stockists of : All kinds of Sheet Plate, Wired Mirrored and Figured Glasses. Manufacturers' Representatives for "Glasef" Toughened Safety Glass. Stockists: DECORATIVE LAMINATES.

## GLASS (TOUGHENED) THE SAFEGLAS CORPORATION PVT. LTD.

Grams : DIADEM.



Phones . 324395, 327841.

Member: INDIAN STANDARDS INSTITUTION
Manufacturers of: "GLASEF" Brand Toughened
SAFETY GLASS used in Windows of Buses, Automobiles, Cars, Furniture, Glazing-Windows, North Light Fittings, etc.

Manufactured as per BSS 857 IRSZ-6-61 & ISS/2553

DHANJI STREET, BOMBAY 3.

#### **GLASS FACTORIES**

### VAZIR GLASS WORKS LTD.

Manufacturers of:

Excellent quality Borosilicate neutral glass vials, transfusion bottles & other types of Pharmaceutical glass containers on fully automatic machines.

J. B. Nagar, Andheri, Bombay 59.

Phone: 576341.

Grams: "VAZIRGLASS".

### **GLASS SHEETS & MIRRORS**

## V. GOPALDAS & CO.

Wholesale & Retail dealers in : Sheet Glass of all thickness, Figured Glass, Wired Glass, Safety Glass, Toughened Glass, Plate Glass Mirrors, Silvered Glass and all other kinds of Imported Glass.

299, Yusuf Meharally Road, (Masjid Bunder), Bombay 3.

Phones { Office : 324364. Resi. : 473910.

Grams: "VICTORGLAS".

#### GLASSWARE MANUFACTURERS

## THE UNITED GLASS WORKS PVT. LTD.

Manufacturers & Exporters of : Glass bottles & Glasswares.

Office: 111, Bhandari Street, Bombay 3 (BR).

Works: 326, Mathuradas Visanji Road, Bombay 72 (AS).

Phones { Office : 322381/2/3. Works : 551459.

Grams: "GLASSBOTS"

### GLASSWARE MFRS.

## OGALE GLASS WORKS LTD.

P.O. Ogalevadi, Dist. Satara, Maharashtra State.

Phone: Karad 238.

Grams: "GLASWORKS" Ogalevadi.

Manufacturers of: Glassware, Lanterns, Stoves, Enamelware, Electric Induction Motors.

#### GLASSWARE MFRS.

## THE ALL INDIA GLASS WORKS PVT.

Manufacturers & Exporters of Glass Bottles & Glassware.

Office: 111, Bhandari Street, Bombay 3 (BR)
Works: 326, Mathuradas Visanji Road, Bombay-72 (AS)

Phones: Office: 322381-2-3; Works: 555122.

Grams: "WHEELBRAND".

## GRAIN, PULSES & OILSEEDS

## Contact: HAJARILAL DEOKRISHNADAS



Commission Agents, Exporters & Manufacturers of : 'VANRAJ' Pulses, Gingelly, Grain Seeds & Pulses.

Piparia, Dist. Hoshangabad, Madhya Pradesh, India.

Phone: 6
Grams:
"BANSIWALA".

#### GRAPHITE & CHEMICAL MFRS.

"COLGRAD" Colloidal Graphite in water, oil, alcohol & any carrier, High temperature greases and oils, Molygraf (Substitute for 'MOLY KOTE') Heat Resisting anti-seizing compound (H. R. compound), for glass, Rubber, Forging, Die-casting and other industries.

## Pioneer Manufacturers : GRAPHITE & CHEMICAL CO.

9-10, Parikh Estate, Rakhial, Ahmedabad 21.

Phone: 53901. Grams: "OILGRAD".

### GREETING CARDS

## LUCKY TRADING CORPORATION



272, Abdul Rehman Street, Bombay 3.

Manufacturers of: Greeting Cards for Divali, X'mas, New Year, Idd, Birthday and Wedding Cards in new various attractive designs.

Phone: 327760.

#### GREETING CARDS

### **VALABDAS TIRATHDAS**

Estd. 1918

Telegrams: "GREETINGS" Bombay-67.

Phone: 692492.

Manufacturers & Exporters of :

Greeting Cards.

60, Kamala Nehru X Road, Kandivli,

Bombay-67 (INDIA)

Overseas Enquiries Solicited.

### GRINDING WHEELS

## ENGINEERING EQUIPMENT CORPN.

44, Nagdevi Cross Lane, Bombay 3 (BR).

Authorised Distributors for: Grinding Wheels, Segments, Sharpening Stones, Bricks & Other Abrasive Products of Grindwell Abrasives Ltd., Phone: 321553.

## **GUM MFRS. & PROCESSORS**

### **GUMAIDS**

Manufacturers/Processors of: Gum Karaya, Gum Arabic, Textile Auxiliaries, Adhesives Gums and all sorts of Gums, Kirana, Spices, Grains, Black Peppers, Cardamons, Groundnut, Seeds and Dry Fruits.

Factory: 64/69, Dr. Mascarenhas Road, Mazgaon, Bombay 10 DD.

Phone: 373389.

Office: 44, Dariasthan Street, Bombay 3.

Phone: 325284. Grams: "ENGUM".

A DIVISION OF N. DEVIDAS & CO.

#### HAND GARAGE TOOLS

### MODERN MACHINE TOOLS CO.

88, Nagdevi Cross Lane, Bombay-3. Phone: 322456. Grams: 'MONKEYGRIP', Hammers, Double Ended Spanners, Ring Spanners, Adjustable Wrenches, Combination, Pump, Circlip Pliers, Nippers, Long Nose Pliers, Pipe Wrenches, Socket Sets, Grease Guns, Bearing Pullers, Hacksaw Frames, Vices. Sole Distributors for: MASCOT drop Forged Hand Tools for Maharashtra, M.P., Gujarat and Territory of Goa.

#### HANDICRAFTS

## HIRA LALL & SON

20, East Park Area, Karol Bagh, New Delhi-5

Manufacturers & Exporters of: Brass Goods, Ivory carvings, Wood carvings, Imitation Jewellery, Silk Scarves & Sarees, Ladies Handloom Dresses & Insenses etc.

#### HARDWARE DEALERS

## D. SUBODH & CO.

371, Raviwar Peth, Poona-2.

Dealers in:—Handware, Pipes, Fittings, Bolts, Nuts, Mill Gin Stores etc.; Distributors for Carborundum Universal Ltd., Hindustan Ferodo Ltd., Hindustan Dowidat Ltd., Warrior India Ltd., Emery India, Ltd., Tepco.

Phones: 22957 & 22241. Grams: "TUSHAR".

### HARDWARE DEALERS & IRONMONGERS

Phones: { Office: 265671. Grams: "IRONDEAL".

## FAKIR CHAND MOHANLAL

Chawri Bazar, Delhi 6.

Importers, Iron & Hardware Merchants, Government Regd. Dealers for Weights & Measures.

## HARDWARE DEALERS & IRON MERCHANTS

## ASIAN PIPES & HARDWARE CO.

30, Nagdevi Street, Bombay 3.

Phone: Office: 324158 & 327625. Grams: "NEWASIAN".

Pipes, Iron & Steel Merchants.

#### HEAT EXCHANGERS MFRS.

## MIREX HEAT TRANSFER PVT. LTD.

Delstar, Hughes Road, Bombay-26.

Manufacturers of: After Coolers, Air Heaters, Box Fin Radiators, Calendrias, Chillers, Condensors, Coolers, Evaporators, Heat Exchangers, Heaters, Oil Coolers, Preheaters, Reboilers, etc.

Phones: 355819 & 354127.
Telegram Address: "HEATMIREX".

C. D. M. Malani, Managing Director.G. A. Mirchandani, Director.

#### HEAT RESISTING PAINTS

## STAR PAINT & OIL INDUSTRIES

Crescent Chambers, 56, Tamarind Lane, Bombay I.

Manufacturers of : Industrial & Marine Paints & Synthetic Enamels ; Specialists in Silvex Aluminium Paint Multi-purpose, Heatex Aluminium Paint, High Temperature Heat Resisting upto 600°C & Rubberex Rubber Paint (for Chemical Resisting).

Phones: 253493 & 297704. Grams: "STARPAINT".

#### HERBO MINERAL MEDICINES

## J. & J. DECHANE

Residency Road, Hyderabad.

Manufacturers of:—
HERBO-MINERAL MEDICINES.

Phone: 42298

Grams: "HERBOMINO".

### **HOMOEOPATHY**

The Leading House in Western India for genuine and reliable Homoeopathic and Biochemic medicines, globules, bottles, corks and other Physician's requisites; Books — American, English and Indian Publications.

## **ROY & COMPANY**

176, Shamaldas Gandhi Marg (Princess Street), Bombay 2.

Phone: 310504. Grams: "HOMOPATHS".

## HOSIERY MFRS.

## MENORA HOSIERY WORKS PRIVATE LTD.

Manufacturers of: Woollen, Nylon, Terylene and Orlon Knitwears.

75, Nehru Road, Vile Parle (East), Bombay 57.

Phones: 57-1378-79.

### HOISTING MACHINERY

## EQUIPMENT CO. LTD.

Importers and Manufacturers of Electric Lifts, Sole Agents in India for Messrs. Schindler & Co. Ltd., Ebikon-Lucerne, Switzerland.

> "Wakefield House", 3rd Floor, 11, Sprott Road, Ballard Estate, P.O. Bag No. 10012, Bombay 1.

## HOSPITAL EQUIPMENTS

**IMPORTERS & STOCKISTS** 

M. SHAH & CO.,

Kanji Mansion, Sandhurst Road, Bombay 4.
Phone: 351834.

Manufacturers of:

Laboratory Equipment, Hospital Equipment & Suppliers of Laboratory Chemicals, Electro-Medical Equipment.

### HOSPITAL AND LABORATORY EQUIPMENTS

## ADVANCE SCIENTIFIC CO.

Manufacturers of:

Scientific Instruments, Apparatus and Laboratory Equipments for Colleges, Laboratory & Hospital and All types of Metal Fabrication and specialists in Mice and Rabbit Cages.

285, Thakurdwar Road, Diamond Jubilee Compound, Near Petrol Pump, Bombay 2

Phone: 314745.

#### HOTELS

### AMBASSADOR HOTEL

Churchgate Extension, Bombay-20.

Most modern & up-to-date Hotel in the East.

Phone: 291131 (10 Lines)

Telex: 011-2918.

Grams: "EMBASSY".

#### **HOTELS & RESTAURANTS**

Grams: HOTEL REGAL Phones-266971 (3 lines)

WHILE IN DELHI

STAY AT

## HOTEL REGAL

S. P. Mukerjee Marg, Delhi 6.

Centrally Situated, Spacious Single and Double Rooms with attached Baths, Hot & Cold Running, Telephone in Rooms, Air Coolers Fitted, Delicious A-La-Carte Food, Charges Moderate.

### **HOTELS & RESTAURANTS**

### HOTEL BOMBAY INTERNATIONAL

29, Marine Drive, Bombay 20.

Grams: "LUXURIOUS". Tel: 299260 (6 lines).

### **HOTELS & RESTAURANTS**

#### KHYBER RESTAURANT

For the best Indian Food in Town; 'KABAB' is a Speciality; Continental Food, Tandoori Chicken, Moglai and Punjabi Dishes served; Outside Catering undertaken.

145, Mahatma Gandhi Road, Opp. Kalaghoda, Bombay-I

Phones: 251016, 257207 & 256954.

## HOTELS & RESTAURANTS

## JUHU HOTEL PRIVATE LTD.

Juhu Beach, Bombay 54.

Phone: 571321-2.

Grams: 'SANDYBEACH'

Open Air Restaurant, Sea bathing facilities, Dinner — Dance — Cabaret Daily.

Board of Directors :

Mr. Roshanlal, Mr. Chamanlal, Mrs. Krishna Kumari and Mr. B. Paul.

#### HOUSE AND ESTATE AGENTS

## ROYAL HOUSE AGENCY (Estd. 1936)

24, Vir Nariman Road, Fort, Bombay I.

Phones: 255759 and 299483.

Transact every type of accommodation—Residential, Office Premises, Factories, Godowns, buy and sell land, properties, etc.

Partners:

A. K. Mehta, Shashikant Mehta & Suresh Mehta.

## HUMIDIFICATION & VENTILATION ENGINEERS

## C. DOCTOR & CO. PRIVATE LTD.

II, Bruce Street, Bombay I.
Phones: 252277-8-9. Grams: "QUALITY"
Telex 218, Bombay.

Also at: Bank of Baroda Building, Opp. Fuwara, Gandhi Road, Ahmedabad I; Grams: "DOCTORCO". Telex: 01248, Ahmedabad. 286, Bipin Behari Ganguli Street, Calcutta 12. Grams: "DOCTORCO (C)." 7 Cowly Brown Road, Coimbatore 2.

Humidification & Ventilation Engineers, Textile Stores Suppliers, Importers-Exporters.

Sole Selling Agents for Maize Products, Ahmedabad 2 and Sole Distributors for Industrial Machinery Manufacturers Private Ltd., Ahmedabad.

## HYDRAULIC POWERPACKS & EQUIPMENTS

## MARSAN MACHINEX

P. B. 7360.

76, S. V. Road, Erla Bridge, Andheri, Bombay 58.

Phone: 576228.

Manufacturers & Dealers of: TEN-TON to 100 TONS Hydraulic Power Packs, Manual/Electric Hydraulic Presses, Pipe-Tube-Coil Benders, General & Special Purpose Machines for Wood-Metals-Plastics Work like 'One-Machine Workshops' and others.

#### HYDRAULIC HOSES

(Rubber, Canvas & High Tensile Steel)

## EASTERN STORES & TRADING CO. PRIVATE LTD.

115, Nagdevi Street, Bombay-3.

Phones: 322215 & 322216. Grams: "ENERGY".

"AIRSHIP" brand wire braided Hydraulic Hoses.
"NEO PRENE" Oil Suction & discharge Hoses,
"FLAX" fire fighting Hoses & fittings, Cotton &
Rubber lined Hoses.

## HYDRAULIC PNEUMATIC

## GIRD & GORD PVT. LTD.

II, Rock House, Worli, Bombay 18 WB.

NEC Oil Hydraulic Rams, Pumps, Valves, Power Packs, etc. Air Cylinders, Filters, Regulators, Lubricators, Hydraulic Presses, Floor Cranes, Lifting Tables, Stackers, etc.

Phones: 372965, 375340

#### HYDRAULIC PRESSES

Present manufacturing programme upto 300 Tonnes Capacity.

Mfgd. in Technical Collaboration with KRAMPE & CO., G.m.b.H. of West Germany.

For further particulars Contact

## KRAMPE HYDRAULIK (INDIA)

105, Churchgate Chambers, 5, New Marine Lines, Bombay 20

Grams: "READYCASH" Phones: 297893-294349

## ICE FACTORIES

## AMBICO ICE WORKS COLD STORAGE & REFRIGERATION

Res: 35-C, Jeirajbhoy Street, Bombay-8.

Phone: 371692.

Factory: 10-12, Cochin Street, Ballard Estate, Bombay-1.

Phone: 263308.

### IMPORT & EXPORT OF RAW COTTON AND OILS

## KILACHAND DEVCHAND & CO. PVT. LTD.

7, Jamshedji Tata Road, Churchgate Reclamation, Bombay 20.

Phone: 298282. Grams: "SEEDS".

Importers and Exporters of Raw Cotton; Oils, Oilseeds & Oilcakes; Cotton, Piecegoods and Chemicals. Selling Agents: Synthetics Rubber.

### **IMPORTERS & EXPORTERS**

## DIALDAS, M., & SONS (INDIA) PVT. LTD.

Haroon Building, 190, S. Gandhi Marg, Bombay 2.

Importers and Exporters.

Phone: 311124. Grams: "EMDAS".

## **IMPORTERS & EXPORTERS** SEPULCHRE BROTHERS (INDIA) LIMITED

Importers-Exporters-Engineers: Taj Building, Dr. Dadabhoy Naoroji Road, P.O. Box No. 754, Bombay I. Tel. Nos.: 261871, 261872, 265000. Cables: "BELEAST". Telex: 3143. Managing Director: H. M. Dalal. Managers: D. T. Gandhy; P. S. Shivram. Secretary and Accountant : M. G. Shah.

Branches : Calcutta, P. O. Box No. 2041. Telex: 7917. Technical Manager: A. K. Gupta, Madras, P. O. Box No. 91. Manager: K. B. Chandran. Delhi, P. O. Box No. 621. Telex: 7293. Representative: Kunhi Raman.

#### **IMPORTERS & EXPORTERS**

## DUBASH FRERES & CO.

Importers, Exporters, Manufacturers' representatives and manufacturers of Pharmaceutical glassware. Ampoules Vials, Tablet Tubes, Test Tubes etc.

Victoria Bldg., Parsee Bazar Street, Fort, Bombay-I.

Grams: "DUBFRERES". Phone: 252131.

#### IMPORTERS & EXPORTERS

## N. MANSETA & BROTHERS

(Estd. 1941)

Importers & Exporters Commission Agents and General Merchants.

165, Lohar Chawl, P.O. Box 2225, Bombay 2.

Phone: 314251, 314252. Grams: "MANSETACOY".

### IMPORTERS & EXPORTERS



## RANE PVT. LIMITED

Largest Importers of Automotive Products

New Queen's Road, Bombay 4.

Phone: 354275. Grams: "AUTOWORKS"

Branches:

Kashmere Gate, Delhi. Mahatma Gandhi Road, Secunderabad.

#### **IMPORTERS & EXPORTERS**

## KASAMALI SAFDARALI & CO.

19, Bhandari Street, Bombay-3.

Grams: 'FISHGUTS'.

Phone: 326571.

Dealers in :

Nylon Twine, Fishing Lines, Norway Fish Hooks, Filaments & Ropes and other Fishing Requisites and Indentors of MARUTO'S Japan Fish-hooks, Exporters, Importers and Manufacturers' Representatives.

### IMPORT & EXPORT FIRMS

## KIDARNATH KISHANCHAND PRIVATE LTD.

(Recognised by the Govt. of India as Export House) Navsari Chambers, 4th Floor, Outram Road, P.O. Box 1579, Bombay-1.

Phone: 262842 (Three Lines) Grams: 'SHURBIR'. Telex: 2670.

Exporters of Industrial Cloth and allied Lines, All Cotton Piecegoods, Grey & Processed, Specialising in Poplins, Drills, Sheetings, Wider widths, Tickings, Canvas, Ducks and also Cotton yarns, Handloom Textiles and Handicrafts.

### INDICATORS — COUNTERS

## INDICATORS MFG. CO. (Regd.)

Deputy Gani, Delhi-6.

Manufacturers of: Pick Counters, Hank Indicators, Stroke, Revolution Counters, both Reset and nonreset for Textile, Jute, Silk, Woollen, Wire and other Similar Industries.

> Phone: 564589. Res: 567406.

### INDUSTRIAL FASTENERS

## AVDEL (INDIA) PRIVATE LIMITED

409, Himalaya House, Palton Road, Bombay-I.

Manufacturers & Suppliers of:

Rivets & Riveting Equipment, AVEX blind "CHOBERT" blind Rivets & Riveting Equipment, "NUTSERT" blind Anchor Nut & Placing Equipment, AVDEL Riveting Clamps, AVLUG Terminal Lug.

Phone: 267221.

Grams: "AVDELIND". Telex AJITIND 011-2802.



#### INDUSTRIAL HEATERS

\* Strip & Finned Heaters \* Curing Heaters (for Textiles, Rubber, Leather) Cartridge Heaters \* Immersion Heaters for Water, Oil, Chemical Baths and for Electroplating-Suitable for any Watts & Volts.

## SUSHRA & CO.

76. Kakad Indus. Estate, Off L. J. Road, Mahim, Bombay-16. Phone: 454424.

## INDUSTRIAL EQUIPMENTS

## LIGHT METAL WORKS

New Sun Mill Compound Delisle Road, Near Lower Parel Station, Bombay 13.

Phone: 371817.

Manufacturers of: Industrial Equipment and Export Articles in Stainless Steel & Aluminium and its alloy Castings.

## INDUSTRIAL HEATING EQUIPMENT GETZ BROS. & CO., INC.

(Incorporated in Switzerland), International Merchants Manufacturers of : Gas Fired Infra-Red Burners for Industrial Heat Process Applications :

BOMBAY : Western India House, Sir P.M. Road,

P.O. Box 910. Tel.: 253541. Tele.: Address: "GETZ".

Bombay Mutual Building, 9, Brabourne Road, P.O. Box 152. Tel.: 225541/2/3 Tele.: Address: "GETZBRO". CALCUTTA:

330, Thambu Chetty Street, P.O. Box 1706. Tel.: 22134. Tele.: Address: "GETZ". MADRAS:

### INDUSTRIAL SECURITY CONSULTANTS

## P. R. PATELL & CO. PVT. LTD.

Union Co-operative Insurance Society Bldg., 23, P. M. Road, Bombay I.

Phone: 258193. Grams: "PILOT".

Industrial Security Consultants and Public Relations Consultants. Also dealers in Paper cones, Textile Mills Accessories, Dog Accessories & Sundries.

Managing Director: Sorab Patell, J.P.

### INDUSTRIAL CONSULTANTS

## R. G. KESWANI

Post Box 16552, Worli Naka, Bombay-18. Phone: 379544/374565

Industrial Consultants on Insulation, Mfrs. Reps. for Elec. Insulating materials, Insulating Wires, Instruments & Raw Materials required by Electrical & Electronic Industries.

## INDUSTRIAL & MANAGEMENT CONSULTANTS

## PERSONNEL & PRODUCTIVITY SERVICES

Management Consultants:

148, Mahatma Gandhi Road, Bombay-I.

Grams: "TEAMWORK". Phone Nos. 254005, 254171.

## INDUSTRIAL & COMMERCIAL MANAGEMENTS CONSULTANTS

## KIRLOSKAR CONSULTANTS LTD.

(Technical, Marketing & Management Consultants Ore Chemical Analysts)

917/19A, Shivajinagar, Fergusson College Road, Poona-4.

Phone: 58184 - Telex: 014-226. Grams: "KICONS"

### **INSULATION MATERIALS**

For your Requirements in Insulation Material & Winding Wires.

Contact :

## **ASHWINKUMAR & COMPANY**

Shreeji Bhuvan, 49, Mangaldas Road, Lohar Street, Bombay-2.

Phone: 311713. Grams: "ASHKABE".

### **INSULATION MATERIALS**

## **PLYNET TRADERS**

"Shahru Castle".

Mohamedali Road (Bibijan Street), Bombay-3

Phone: 327334.

Grams: "NETPLY".

## Agents for :

Plywood Products, Sitapur (U.P.). Manufacturers of 'SITATEX' Thermal Accoustic Boards & Tiles —
"SITAWOOD" Veneered & unveneerd and "SITA-CORE".

#### INSULATION MATERIALS

Ask to

## **NEWKEM INSULATIONS**

for everything in heat — cold and accoustic insulations. We offer Thermolite—600 (Asbestos Magnesia), Thermolite—1200 (Calcium Silicate) in powder, block and pipe forms. Hard-setting compositions, Nulitewool (Glassfibre) loose and in mattress form, Vermiculite, Insulation bricks, Mineral wool, Foam polystyrene, waterproofing materials, Asbestos powder, cloth, roopes and Mill boards corrugated aluminium.

Our associates, NEW CONTRACTORS, gives complete insulations contract services from -150°C to +1000°C.

ADDRESS: Harganga Mahal, Khodadad Circle, Bombay-I4 DD.
Phone: 440191.

Gram: "THERMOLITE",
Bombay-Dadar.

## **INSULATION MATERIALS**

Tele.: 315047

Gram: LEATHEROID

GWALANI BROS. & CO. (INDIA) PVT. LTD.

Gopal Bhuvan, 199, Princess Street, Bombay-2 B.R. Specialists in:

Insulating Materials:—Presspahn, Leatheroid, Press Board, Transformer Board, Empire Cloth, Tape & Sleevings. Fibre Glass & Asbestos.

Armature Winding Wires :- All types.

Resistance Wires: —Eureka, Kanthal, Nichrome Wires and Strips, Bare & Covered, Thermocouple Wires, Beads, and Bi-Metal Strips, Sindanyo Sheets, Thermostats, Time Switches, Toggle Switches & Miniature Circuit Breakers.

## INSULATING MATERIAL MFRS.

## PERMALI WALLACE LIMITED

Bombay Office: 9, Wallace Street, Bombay I.

Regd. Office & Works: Central India Flour Mills Estate, P.O. 38, Bhopal, India.

Manufacturers of: Wood based Plastic Laminates— PERMALI, PERMAWOOD, PERMATRED and HYDULIGNUM for Electrical insulation, General and Chemical Engineering use, Rail Track Insulation, Textile accessories and Silent Gears.

Phones: 573 & 574. Grams: "PERMALI", Bhopal.

#### INSULATORS MFRS.

### PRESSED PORCELAIN PRIVATE LTD.

Post Box No. 18.

Vallabh Vidyanagar (W. Rly.), Gujarat State.

Phone: 98.

Grams: "PORCELAIN".

Manufacturers of: Pressed Electro Porcelain Insulators, Fire Bricks, Acid Resisting Articles etc.

### INSURANCE COMPANIES

## THE BRITISH INDIA GENERAL INSURANCE CO., LTD.

Transacts all classes of General Insurance Business.

Phone: 290303.

Grams: "BRINDIA".

Head Office:
Mehta House,
Apollo Street, Fort,
Bombay I (India).

Chairman:
Mr. Homi F. Mehta.
General Manager:
Mr. M. S. Dastur.

## INSURANCE COMPANIES

## LEGAL AND GENERAL ASSURANCE SOCIETY LTD.

(Fire, Marine & Misc.).

Head Office: Temple Court, 11, Queen Victoria Street, London, E.C.4.

Chief Office for India: Madurai.

Manager for India: H. Periyanayakam.

Bombay Office: Gresham Assurance House, Sir Phirozshah Mehta Road, Fort.

Manager: J. F. S. P. Fernandes.

Phone: 259588 (2 lines). Grams: "LEGRESH". Branches at: Calcutta, Madras, Delhi, Nagpur, Sholapur, Coimbatore and Cochin. Agents and Representatives throughout India.

#### INSURANCE COMPANIES

## PANDYAN INSURANCE CO. LTD.

(Fire, Marine, Misc.).

Head Office: Madurai, South India.

Manager: H. Periyanayakam,

Bombay Branch :

Phone: 259588 (2 lines). Grams: "LEGRESH".

Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay.

Branch Manager: J. F. S. P. Fernandes.

## INSURANCE COMPANIES

## NEW INDIA ASSURANCE CO., LTD.

Head Office:

New India Assurance Bldg.,

Mahatma Gandhi Road, Fort, Bombay.

P.B. No. 969.

Phone: 259161. Grams: "NIASURANCE".

## INSURANCE COMPANIES

## SOUTH BRITISH INSURANCE CO.

(Incorporated in New Zealand)
Canada Building, Dr. Dadabhoy Naoroji Road,
Bombay 1.

Manager: J. S. Bramley.

Assistants: A. L. Gabriel, M. S. Ramalingam, V. Sriniyasan, B. P. Talati, R. D'Souza, C. H. Shahani.

Phone: 264711. Grams: "BRITISH".

Branches at: Calcutta, Bombay, Madras, Ahmedabad and Poona.

#### INSURANCE COMPANIES

## THE NATIONAL INSURANCE COMPANY OF NEW ZEALAND LTD.

(Incorporated in New Zealand with Limited Liability)

Head Office: Dunedin, New Zealand.

Principal Office for India: Janmabhoomi Chambers
Fort Street, Bombay I.

roit street, b

Phone: 269241-2-3. Grams: 'OTAGO'.

Transacts Fire, Marine and Miscellaneous Business.

Principal Officer in India: R. K. UMRIGAR.

### **INSURANCE COMPANIES**

## NORWICH UNION FIRE INSURANCE SOCIETY, LTD.,

**Business Transacted:** 

Fire — Marine — Motor — Accident — Aviation etc.

16, Bank Street, Post Box No. 49, Fort, Bombay.

Western Zone Manager: K. M. Dastur. Telegraphic Address: "Nufam". Telephones: 257984 & 257985.

#### INSURANCE COMPANIES

## INDIAN TRADE & GENERAL INSURANCE CO., LTD.

INSURANCE CO., LTD.

Principal Office: Jehangir Building, Mahatma Gandhi Road, Fort, Bombay, Grams: "ADASTRA". Phone: 254924. Regd. Office: 25, Brabourne Road, Calcutta I. Business Transacted: Fire, Marlne, Motor and Miscellaneous. Branches:—(1) Agra; (2) Ahmedabad; (3) Allahabad; (4) Alleppey: (5) Amritsar: (6) Bangalore: (7) Bhavnagar: (8) Bombay: (9) Calcutta; (10) Callcut; (11) Chandigarh: (12) Cochin; (13) Coimbatore; (14) Dharangadhra: (15) Indore: (16) Jaipur; (17) Jetpur; (18) Kanpur; (19) Kottsyam: (20) Lucknow: (21) Ludhiana: (22) Madras: (23) Mangalore: (24) Morvi: (25) Mysore: (26) Nagpur; (27) New Delhi: (28) Patna; (29) Poona: (30) Porbundar; (31) Quilon: (32) Rajkot; (33) Secunderabad; (34) Trichur; (35) Trichy; (36) Trivandrum. Overseas Branches: (1) Aden; (2) Kampala; (3) Kuala Lumpur; (4) Mombasa; (5) Nairobi; (6) Penang; (7) Singapore. Management: Surendr Lall—Managing Director, B. B. Sawhney—General Manager, H. Ganpath

#### INSURANCE COMPANIES

## SCOTTISH UNION AND NATIONAL INSURANCE CO.

Bank Street, Post Box No. 49, Fort, Bombay.
 Western Zone Manager: K. M. Dastur.

Telegraphic Address: "NUFAM".

Telephones: 257985 and 257984.

#### INSURANCE COMPANIES

## COMMERCIAL UNION ASSURANCE CO., LTD.

Business Transacted: FIRE—MARINE—MOTOR—
WORKMEN'S COMPENSATION — ETC.

Address: 9, Wallace Street, Fort, Bombay-1.
Post Box No. 329.

Telephone: 264841. Telegram: "CUACO".

Branch Manager: Mr. E. H. Toovey.

#### INSURANCE COMPANIES

## CO-OPERATIVE GENERAL INSURANCE SOCIETY LTD.

H.O. Narayanguda, Hyderabad 29.

Phones: 52045, 52046, 45282. Grams: "COOPGEN".

Transacts Fire, Marine and Miscellaneous.

Branches: Bombay, Calcutta, Delhi, Lucknow, Madras, Eluru, Vizianagram, Nanded, Indore, Jaipur, Nellore, Sangli, Meerut, Muzzafarnagar, Chandigarh, Bangalore, Guntur, Ahmedabad.

# INSURANCE COMPANIES NATIONAL EMPLOYERS' MUTUAL GENERAL INSURANCE ASSOCIATION LIMITED

HEAD OFFICE: National Employers' House, Bury Street, London, E.C. J. BUSINESS TRANSACTED: Fire, Motor, Workmen's Compensation and several other types of general Insurance. HEAD OFFICE FOR INDIA: "Kamani Chambers." 37, Nicol Road, Ballard Excase, P.O. Box 730, Bombay-1.

NEW DELHI OFFICE: 4. Peareyial Buildings, Janpath, P.O. Box 150.
BRANCH MANAGER: V. P. Mehta.
TELEGRAPHIC ADDRESS: "EMPLOMUTUA"
Telephones: 43823/6/7.

#### INTERIOR DECORATORS

## DAVAR, N., & CO.

Interior Decorators and Painting Contractors.

Syndicate Bank Building, Sir Phirozahah Mehta Road,
Fort, Bombay.

Phone: 261681.

Showroom: Commerce Centre, Tardeo, Bombay 34 (WB).

Phone: 374856.

#### INTERIOR DECORATORS

#### NOORMOHAMEDS

House of Fine Furniture (Estd. 1885).

109/A-111/B, Mohamedally Road, Bombay-3.

Phones: 325124, 327694. Grams: "NOORDECOR".

Furnishers — Cabinet Makers & Interior Decorators, Importers & Exporters.

Branch at : Mahim Causeway.

#### IRON & STEEL

## HOOSEIN & BROS., M. A.

Importing Agents representing Foreign Steel Mills and Steel Millagents from all parts of the world since about 48 years.

Lakshmi Bldgs., Sir P. M. Road, Fort, Bombay.

Cable Address : TROPICALS.

Telephones: 269581/83. Telex 2412. A/B: HOOSDAV.

## IRON & STEELS

## WESTERN INDIA STRIP MILLS

Re-Rollers of:-

M. S. Bars, Flats, Squares, Angles, Steel Windows Sections etc.

Address:-

Lal Bahadur Shastri Marg, Bhandup, Bombay-78.

Telephones: Mill: 592244, 592533.

Sales:-323240 & 323017.

Grams: "WESTRIP" Bhandup-Bombay.

#### IRON & STEEL MERCHANTS

#### Messrs, K. S. NAGORI

fron & Steel Merchants, 872, Budhwar Peth (Old 165, Raviwar), Poona-2.

Phone: 24224 & 25953.

Dealers & Stockists: All kinds of G.I. Black & Steam Pipes, 'R' and other Brands Pipes Fittings, Nails, Wires, Cast Iron Spun Pipes & Specials, Capstan Water Meters & other Hardware materials.

#### IRON & STEEL MERCHANTS

#### MEHTA & COMPANY

Exporters, Importers & Steel Stocklists
Loha Bhavan, Frere Road, Bombay 9.

Phones: 321298 & 327508.

Sales Depot :

Latif House, Iron Market, Bombay 9.

Phone: 321265.

Grams : " NICERODS ".

Telex: BARTUBE 011-2854.

#### IRON & STEEL MERCHANTS

Solid, Semi-Hollow, Pop Rivets Steel & non-Ferrous Manufactured in our imported Machinery by highly qualified personnel under strict quality control.

The largest and only factory of its type in the state of Gujarat.

Trade inquiries solicited.

### RECHAN RIVETS

29, Udyog Nagar, Mehmedabad, Dist. Kaira, Gujarat.

Phone : 14,

Grams: "HARIKRIFA".

#### IRON & STEEL MERCHANTS

## WESTERN INDIA STEEL TRADERS

K. Parikh House, P. D'Hello Road, Sombay 9.

Phones: 320121-22 and 321602. Sales: Iron Market, Bombay-9.

Phones: 323017-323240.

Telex No. 2667.

Controlled Stockholders & Government Handling Agents for Iron & Steel. One of the largest Stocklets of Iron & Steel materials in the Country.

## IRON & STEEL MERCHANTS

## MANGALDAS RANCHHODDAS & CO.

508;509, Giriraj, Sant Tukaram Road, Bombay 9.

Iron & Steel Merchants, Bright Bar Manufacturers & Steel Exporters.

Phones :

\$21884 327702 Grams: "MANGALODAY".

#### IBON & STEEL MERCHANTS

## CONSOLIDATED STEEL CORPN.

Stackists of : Tool & Alloy Staels & ENC S, ENC T.

Address:

30, Narayan Dituru Street, Bombay 3.

Phone | 327764.

Grame: "HIGHCABON".

#### **JEWILLERS**

### E. R. MALPEKAR

Gold Smith & Jewellers.

88-C. Jitekar Wedi, Thakurdwar Road, Bombay 2.

Phone : 355731,

## JEWELLERS (GOLD & SILVER SMITHS) BUTING & SELLING



DIAMOND, RUBY, EMERALD, etc. JEWELLERY

Please Visit :

## CHUNILAL & COMPANY

17, Dhanji Street, Opp. Pythonie Taxi Stand, Sumbay-3.

Phones : Office : 326791. Rest. : { Vare : 257660. Parakh : 219679.

DEWELLERS, GOLDSMITHS & SELVERSMITHS

FRANTERD. BOMBAY

Phone : 271483.

Grame: "GEMARTWORK".

Appointed Valuers by THE GOVERNMENT OF INDIA

## JEWELLERS, GOLDSMITHS & SILVERSMITHS

## Y. A. HAJARE & BROS.

(Estd. 1927)

Manufacturers of:

Silverware, Brassware, Presentation Articles, Sports Trophies, Shields and Silver Caskets.

Spinning Lathes & Machine Engravers on Three Dimension Deckel Pantograph.

Brass operation Theater Shadowless lamp shades.

Address: Ist Panjrapole Lane, Madhavbaug, Bombay 4.
Grams: "KRUPAWANTI" Phones: 333666-336162

## LABORATORY CHEMICALS

## S. MATHURADAS & CO.

Stockists of Laboratory & Fine Chemicals, Analytical & Laboratory Re-agents, Amino-Acids, Stains, Drugs, Vitamins, etc. Manufactured by E. Merck & other renowned products.

P. O. Box No. 2113. Princess Street, Bombay 2.

Phone: 311273. Grams: "SMATHURCO".

## LABORATORY CHEMICALS

## NATIONAL CHEMICAL CORPORATION

B. No. 9, Dev Mansion, Princess Street, Bombay 2.

Phones: { Office : 319737. Factory : 592126.

Manufacturers of: Acids, Solvents & other various chemicals in AR & CP Grade & Pellets of Caustic Soda.

#### LABORATORY CHEMICALS

## KANAK CHEMICAL CORPORATION

Bode Chawl, 2nd Floor, Princess Street, Bombay 2.

> P. Box No. 2075. Phone : C/o 319737.

Dealers in Lab. Chemicals, Glassware, Pharmaceuticals, Rubber & Plastic Raw Materials.

## LABORATORY EQUIPMENTS

## **TEMPO SEMICONDUCTORS**

Divn. of Primco (P) Ltd.

Manufacturers of: Thermistors & Ceramic Magnets.

18, Paranjape 'B' Scheme, Subhash Road, Vile Parle
(East), Bombay 57.

Phone: 572305. Grams: "TEMPOVEN" (SZ).



# LAMPS & LANTERNS PITAMBARDAS LALLUBHAI & CO.,

86, Kansar Chawl, Kalbadevi Road, Bombay-2 BR.

Manufacturers of: "AGNIRAJ"
Stoves, Lanterns, Blow Lamps,
Aluminium, Brass, Copper & Stainless Steel Utensils. Hospital Ware
& Equipments. Surgical Instruments
and appliances and other Engn.

Articles

Articles.

Grams: "KATORIWALA".
Phones: 334816 & 334408.
Factory: 375381 & 370211.

## LATHES MFRS.

## UNITED CASTINGS

Kolhapur-3.

Phone: 2079. Grams: "UCASTINGS".

Manufacturers of:—UNITED Vertical and Horizontal Engines, Lathes, Hacksaw Machines, Pan Mixers and Sugar Cane Crushers etc.

#### LEAD & PLASTIC ENGINEERS

K. K. NAG (P) LTD.

d-3, bhosari industrial estate, pimpri, poona. phone: 8875.

## "PROMIL"

Expanded Polystyrene Packagings, Lead Valves & Pipes FRP Helmets, Instrument Covers etc.

## LEATHER GOODS MANUFACTURERS

## WESTERN INDIA TANNERIES LTD.

Manufacturers of every kind of Shoe upper and sole leather. Specialists in the manufacture of Textile Leathers, Picking Bands, Leather Beltings, Buffers, Washers, Roller Skins, Pickers, Laces, etc.

Address: Dharavi, Bombay 17. Phone: 474251.

Grams: "EASTKIP."

### LEATHER GOODS MFRS. & DEALERS

### BOMBAY LEATHER GOODS DEPOT

Mfrs. & Exporters of Leather & Plastic Suit Cases; Wholesale Stockists and Suppliers of P.V.C. plastic Sheetings & Films, Suitcase locks & Leather goods.

14, Shamset Street (Chhipi Chawl), Bombay-2.

Phone: Office: 325649; Res.: 473564.

Grams: 'BOLEGOD', Bombay 2.

## LIGHTS & LIGHTING FITTINGS

## PREMIER LIGHTING INDUSTRIES PRIVATE LTD.

Manufacturers of:

"Daylight" Fluorescent Lighting Fittings, Ballasts and Accessories, Mercury Vapour Lanterns and their Ballasts.

Regd. Office: Jhaveri Building, 348/352, Abdul Rehman Street, Bombay 3.

Phones: 323743-4. Grams: "DAYFIX".

Factory: Old Sunderdas Mills Compound, Anandrao Nair Road, Bombay II. Phones: 378221-2.

STATE OF STREET

#### LITHOGRAPHERS

## SHIVRAJ FINE ART LITHO WORKS

Subhash Road, Nagpur-2.

Bombay Office: Shree Sidh Litho Works, Bombay-4. State Award Winners, Multi Colour Offset Printers equipped with most modern and exclusive machinery and equipments; Speciality, Trade mark labels, Cartons, Calendars, Pictures, Posters, Folders, Playing Cards, Atlases and all sorts of multicolour Printing.

'Phones: 24391, 22146. Grams: "LITHOGRAPH".

### LITHOGRAPHERS & OFFSET PRINTERS

## NATIONAL LITHO WORKS PRIVATE LTD.

National House, 608, Bapurao Jagtap Road, Sant Gadge Maharaj Chowk, Bombay II BC.

Grams: "LITHOCRAFT."

Phone: 375477.

### LUBRICATING MATERIALS

Your requirements in Grease Nipples, Oil Cans, Oil Paper, Grease Cups etc. Please contact phone 328089.

## ASSOCIATED TRADING AGENCIES

 Abdul Rehman Street, Yusuf Bldg., Pydhonie, Bombay-3 (BR). Engineering Tools & Hardware Merchants.

Sole Agents for :

'V.E.S.' Brand Thrust & 'Jyoti' Brand Dubi Bearings.
Authorised Distributors:

'Ambica' Brand Cork Sheets, 'VENUS' Brand Grease Cups.

## LUBRICATING OILS & GREASES

## GULF OIL (INDIA) PRIVATE LTD.

Importers and Distributors of High Grade Lubricants.

Steelcrete House, 3, Dinsha Wacha Road, Bombay 20. Phone: 295131 (3 lines). Grams: "GULFINDIA". Importers and Distributors of High Grade Lubricants.

Area Offices: Ahmedabad, Indore and Madras,

## MACHINE TOOLS

## INDIA MACHINE TOOLS CORPORATION

Stockists of :

Kirloskar Lathes and Hacksaw Machines, Ashok Tiger Lathes and Drillings, Radial Drillings, Cooper Shapers, Praga & Diamond Chucks, American Engraving Machines, Pipe Bending Flexible shaft grinders and Universal Wood Machines, P.B. No. 255-A.

62, Medows Street, Bombay-I

Phone: 252917. Grams: "INDIATOOLS".

## MACHINE TOOLS

Lathes, Shapings, Drilling, Grinders, Chucks, Vices, Welding Transformers & Accessories, Power Presses, Hand Presses and all types of workshop, Sheetmetal & Woodworking Machinery.

#### Contact:

## P. M. & AIMERA ENTERPRISE

97. Apollo Street, Bombay I. Phone: 257211.

#### MACHINERY

## HEMCO CORPORATION

Stockists and dealers in : Air-Compressors, Engraving Machines, Spray Guns, Sheet Metal Machinery, Woodworking Machinery, Workshop Machinery, Hydraulic Pipe Bending Machines, Plastic Injection Moulding Machines, Bakelite Moulding Presses etc.

308, Bazar Gate Street, P.B. No. 1645, Bombay-1. Phone: 254237.

## MACHINERY MFRS.

## PIONEER ENGINEERING WORKS

Prop.: C. C. Ranchhodlal & Co.

Manufacturers of: Textile Machinery, C. I. Pipes and Specials, V. Grooved Pulleys, Cocks, Valves, Vacuum Pumps, Flooring Tiles making machine, etc., Naroda Road, Ahmedabad 2.

Phone: 26171. Grams: "MOULDING".

## MACHINERY MFRS.

## THE TRIVENI ENGINEERING WORKS LTD.

NSIC Building, P.O. Udhyognagar, Naini, Allahabad.

Phone: 238.

Grams: "SANGAM".

Manufacturers of:

Steam Turbine, Sugar Mill Machinery and Fabricators.

General Manager: B. Miller.

### MACHINERY MFRS.

Clutches, Clutch Plates, Clutch Parts Power Take-Off Units, Pneumatic Clutches and Brakes.

### Contact :

## **DEE-KAY INDUSTRIES**

Lake Road, Bhandup, Bombay 78.

Phone: 582034. Grams : CLUTCHDISC

#### MACHINERY MFRS.

## BHARAT INDUSTRIAL CORPORATION

#### Manufacturers of :

Oil Expellers, Spares for all types of Foreign as well as Indian make Expellers, Filter Press, Copra Cutting Machines, Chain Elevators, Screw Conveyors, Baby Boilers, Solvent Extraction Plant, Vegetable Ghee Plants, Vegetable Oil Refinery Plants, Plate and Structure.

table Gree Finants, Vegetable Oil Refinery Plants, Plate and Structural Fabrication.

Office: Petit Compound, Nana Chowk, Grant Road, Bombay 7.
Factory No. 1—As above.
Factory No. 2—100 Upper Duncan Road, Bombay 8.

Phone: 358061. Grams: "EXPELPART".

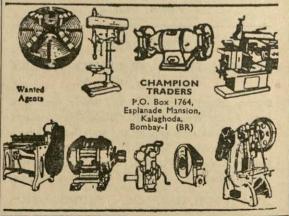
Partners: Ramniklal R. Gandhi, Rasiklal R. Gandhi, Vrajlal R. Gandhi, Kanubhai R. Gandhi.

## MACHINERY MFRS. & DEALERS

## GHATGE PATIL INDUSTRIES PVT. TD.

P. O. Uchagaon, Dist. Kolhapur, Maharashtra. Grey Iron Founders: C. I. Castings up to BS. grade 17.
Maximum Weight Single Casting—100 Kgs.
Foundry Capacity—600 M. Tonnes per month.
Manufacturers of: Mechanical Clutches and Power Take-offs (dry friction disc, Over-Centre type) upto 3000 HP under licence from Twin Disc Incorporated, U.S.A., Marine Reverse and Reduction Gears upto 105 HP. under Licence from the Parsons Engineering Co. Ltd., U.K.

## MACHINERY MFRS. & DEALERS



## MACHINERY IMPORTERS, DEALERS, MANUFACTURERS ETC.

## THE INDUSTRIAL STORES CO.

Seksaria Chambers, 139, Medows Street, Fort, Bombay. Phones: 316461 & 298021. Grams: "PERFECOLD," Bombay. Importers, Exporters, Dealers and Stockists and Distributors in: Machinery items, like 'Karajgar' Horizontal and Vertical Diesel Engines, Generating Sets, Generators, Alternators, Electric Motors, Pumps & Pumping Sets, Diesel Engines, Spare Parts of Diesel Engines and Petrol Engines and Refrigerators. Associates: Messrs. The Industrial Engineering Corpn. 139, Medows Street, Bombay-I. Distributors for: 'Hinka', Domestic Flour Mills and 'Worthington—Simpson' Monobloc Pump Sets. Associates: The Industrial trial Stores Co., 12A, Linghi Chetty Street, Madras I.

## MACHINERY IMPORTERS, DEALERS & MANUFACTURERS

## DINSHAW, M. H. & CO.

105, Apollo Street, Fort. P.O. Box No. 448, Bombay. Gram: "AHOORAT." Phone: 251458.

Managing Director:

H. Dinshaw Dungor, M.I.S.E., M.M.E.A. (Ind.), A.S.E. (Lond.), F.S.A.A., M.I.C.E. (U.S.A.).

Managing Partner:

Dinshaw H. Dungor, M.E., M.I.S.E., M.M.E.A., A.M.I.E.T. (Lond.). Residence:

Victory Villa, 77, Turner Road, Bandra, Bombay-50.

MACHINERY IMPORTERS, DEALERS & MFRS.

## KIRLOSKAR BROS. LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona-9.

Works: Kirloskarvadi (Dist. Sangli) and Dewas (M.P.).

Manufacturers of: Farm Machinery, Pumps, Valves, Machine Tools, Hermatic Compressors & Tractors.

Offices: Ahmedabad, Bangalore, Bhubanes Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad. Bhubaneswar.

Distributors: In all towns and cities.

## MACHINERY (SECONDHAND) & PLANTS

## ORIENTAL ENGINEERING CO.

25, Forbes St., Fort, Bombay I.

Grams: "ADIVISHNU". Phone: 253057.

Dealers in New and Secondhand Diesel Generating Sets, Electric Motors, Transformers, Boilers, Diesel Engines, Oil Mill Machinery, Sugar Mill Machinery, Tractors, Earthmoving Machinery, Machine Tools, etc.

## MACHINERY MERCHANTS



Engineers, Machinery Merchants and Manufacturers' Representa-

Direct Importers of Machine Tools, Wood Working Machinery, Sheet Metal Working Machinery, Welding Equipment, Foundry Equipment, Electric Motors, etc.

Sole Agents for "NITU", "RUSSEL NEWBERRY" and "CLA-EYS" Diesel Engines and Pumping Sets.

Head Office: Great Western Bidg., 1st floor, 130-132, Apollo Street, Fort, Bombay 1. Phone: 255891. Grams: "JAYEMS".

Branches at: Ahmedabad, Bangalore, Batala, Bhopal, Calcutta, Coimbatore, Delhi, Ernakulam, Kanpur, Ludhiana, Madras, Nagpur, Patna, Poona, Rajkot and Secunderabad.

## MANUFACTURERS' REPRESENTATIVES

## WESTERN INDIA ENGINEERING CORPN. PVT. LTD.

Manufacturers' Representatives, Electrical Engineers and Contractors.

Registered Office:

68-A, Alli Chambers, Tamarind Lane, Bombay-I.

Directors:

D. N. Purandare, Jayant L. Desai and N. N. Purandare. Phones: 256896 & 298962. Grams : "WIECOL ", Bombay.

### MANUFACTURERS' REPRESENTATIVES

## **OVERSEAS MANUFACTURERS** SALES CO.

Manufacturers' Representatives; Lines handled: Automobile replacement parts and accessories, Hand Tools, Machinery spares, Garage Equipment, Steamcleaners, Diesel Engines Spares etc. India House, Fort Street, Fort, Bombay.

Phone: 262129. Grams: "ALIASP".

Branches: Calcutta, Madras & Delhi.

## MANUFACTURERS' REPRESENTATIVES **STOCKISTS**

Corning, Borosil Siscol and Simco Brand Glass wares; TEMPO brand Furnaces, Oven, Water-bath, Water-still; JEBIVAK Brand suction & Oil sealed high vacuum pump; Whatman & Kalpi Brand Filter Paper Ream and Packets, Heating Mental, Pads and Cord of any size best quality.

Dealers in Laboratory Use:—
Platinum Ware, Silica Wzre, Sintered Glass Ware, Wooden Ware
Porcelain Ware, Wire Gauzes & Wire Basket; Industrial, Surgical
and Postmartem Hand Gloves.

Specialists for:
Glass Assemblies similar to Quickfit Fabricated from Corning/
Pyrex Glass with Standard Joints.

KANAK CORPORATION
Damodat Bidg., 1st Floor, 105, Princess Street,
Bombay 2 (BR). Phone : 310817.

# MANUFACTURERS' REPRESENTATIVES R. C. H. BARAR & CO.

&

## BARAR TRADING CO.

Barar House, 237/243, Abdul Rehman St., Bombay 3.

Manufacturers' Representatives, Importers, Exporters, Dealers in Pencils, Morning Star Shaving Blades, Ball Point Pens & Refills, Chatons, Plastic Buttons and Crockery, etc.

Grams: "ATAL"

Phones: 326039 & 322720.

## MANUFACTURERS' REPRESENTATIVES ESSENTIAL ENGINEERING CO.

11, Botawala Building, Elphinstone Circle, Fort.

Phones: 318695 & 252929. Grams: "ESSENCE". Importers, Exporters, Commission Agents and Manufacturers' Representatives of Electrical Instruments & Meters, Electric Motors, Generators & Sets, Machine Tools, Factory and Calendar Clocks, Mechanical Handling Equipments & Conveyors, Oil Mill Machinery Manufacturers & Dealers, Pharmaceutical Machinery and other Requirements suppliers, Sugar Mill Machinery & other Requirements, Surveying and Measuring Instruments, Textile Machinery Manufacturers and Dealers.

## MANUFACTURERS' REPRESENTATIVES, IMPORTERS & EXPORTERS

## DALI B. SHROFF & CO.

Manufacturers' Representatives, Importers and Exporters.
361, Dr. Dadabhoy Naoroji Road, Fort,

Post Box No. 973, Bombay.

Phone: 251765.

Grams : "OLDISGOLD ".

### MARBLES & TILES

## NATIONAL TILES & INDUSTRIES (PVT.) LTD.

Manufacturers' of : Marble Mosaic Terrazzo Non-slippery, Heavy Duty Steelcrete & Acid Resisting Tiles.

Office: 31, Hamam Street, Bombay 1.

Phones: 251007, 256392. Grams: "NECTILES".

## MARBLES & TILES

## **NECTILES CORPORATION**

Manufacturers of :

Marble Mosaic, Plain & Heavy Duty Flooring Tiles.

Head Office: 31, Hamam Street, Bombay I.

Phone: 251007.

Office: Khadia Char Rasta, Ahmedabad I.

Phone: 53510.

Factory: B-15, Naroda Industrial Estate, Naroda

(Ahmedabad Dist.).

## MARBLES & TILES

## ESCO (POONA) PVT. LTD.

Manufacturers of : Marble Mosaic, Plain and Heavy

Duty flooring Tiles. Office: 2432, East Street, Poona-1.

Phone: 26187. Grams: "MOSAIC".

## MARBLES & TILES

## DUNCAN STONE CO.

Marble & Tiles Merchants,
Stockists of 'Johnson' Tiles.

500, Maulana Azad Road, BOMBAY 4, BR.

Office: 336010, 336905. Grams: "TILERIES."

Residence: 359908.

### MARBLES & TILES MAKING MACHINERY

LONGINOTTI - Firenze, Italy.

Manufacturers of Automatic Machinery for Flooring Tiles.

"B.R.A." — Verona-Italy. Manufacturers of Automatic Machinery for Marble & Granite Cutting-Sawing Polishing etc.

Sole Agents:

## JASHVANT C. SHAH & CO.

Bharati Nivas, Block No. 6, 1st Floor, Besant Road, Santa Cruz (West), Bombay 4.

Grams: "OTCASNART". Phone: 359710

## MARBLES, TILES, SANITARYWARES

## N. M. MEHTA & CO.

(Estd. 1915)

Sanitaryware of Hindustan & KPW/PPW makes, Johnson & BPT Glazed tiles, 'Everest' Asbestos Cement Sheets, Pipes & Fittings, 'Kashimira' Stoneware Pipes & Fittings, Cement Mosaic Tiles, Marble, All types of bathroom fittings & accessories, 'Fordham', 'Nomos' and 'A-I', flushing cisterns, and 'Yera' Alembic Glass Bricks, Steel enamelled and Fibre Glass Bath Tubs.

Wholesale & Retail.

4/10, Old Custom House Road, Bombay-1.

Phone: 255047.

Grams: "EMBOSSED".

## MATERIAL HANDLING EQUIPMENT MFRS.

## GUJARAT INDUSTRIAL TRUCKS LTD.

Manufacturers of :-

Hydraulic Pallet Trucks, Lifting Trucks, Stackers, Industrial Trucks & Trolleys, Wheels, Casters etc.

Address:—India House, Walchand Hirachand Marg, Bombay I.

Grams: "ANJUCASTOR".

Phone: 261248.

Regd. Office & Works: —Surat-Navsari Road, P.O. Baroda Rayon, Udhna, Dist. Surat.

Grams: "AMEETRUCK".

Phone: 8106.

#### MATERIAL HANDLING EQUIPMENT MFRS.

#### HERCULES HOISTS LTD.

Manufacturers of: "INDEF" Chain Pulley Blocks,
Chain Electric Hoists, Ratchet Hoists & Travelling
Trolleys. Shastri Marg, Bombay 78; Phone: 582311.
Grams: "INDEF".

### MATERIAL & MECHANICAL HANDLING FOUIPMENT & CONVEYORS

## KONELS -

CONVEYORS - ELEVATORS

(Fixed and portable belt conveyors, Bucket elevators, Gravity roller conveyors, chain slat conveyors, bag stacking machine, bag filling machine, overhead chain conveyors, screw conveyors and other mechanical handling equipments)

IDLERS & RETURN ROLLERS (Troughed as well as straight type)

## DESIGNED & MANUFACTURED BY MESSRS. KONEL CORPORATION

Niranjan, 4th Floor, West of Marine Lines Station, BOMBAY 2. Phone No.: 298457

# MELTING & REFINING WORKS NATIONAL REFINERY PRIVATE LIMITED

87, Tardeo Road, Bombay-34.

Phones: 372263, 371229 Gram: "ARGOR" Melters, Refiners & Assayers of Gold, Silver, Platinum and Platinum group metals and Manufacturers of Silver Nitrate, Silver Chemicals; Gold, Platinum and Palladium Metals Chemicals; Silver Solders and alloys in various forms; Electrolytically refined Silver of 99-9% and 99-99% purity in forms of Powder, Granules, Sheets, Strips, Wires, Rods & Plates; Rolled and Barrel Silver Anodes; Dental and Carat Golds; Gold Alloys; 99-9% and over purity Gold in forms of Wires, Sheets and Foils.

## METAL LABELS & ADVTG. GIFTS MANUFACTURERS

## EXCEL PROCESS PVT. LTD.

India's leading manufacturers of fully Etched, Anodised and Embossed multi-coloured Aluminium Name Plates, Labels, Product Identification Plates, Charts, Diagrams, Data and Instruction Plates; Advertising specialities, Sales Promotion Aids, Dials, Badges, Tokens, Instrument Panels, Metal Photographs, Radio Decorations, Grills, etc., suitable for all types of Industry.

22-D, S. A. Brelvi Street (Parsi Bazar Street), Bombay-I.

Phones: 259181 & 573327.

Telex: 011-3123.

#### METAL LABELS & DIALS

All sorts of Metal Labels & Dials in Aluminium Anodic, Brass & Stainless Steel for all Industrial purposes. Made to specifications.

Contact Manufacturers:

## **NEW KRISHNA METAL ARTS**

Parekh Nagar, S. V. Road, Kandivli (West), Bombay 67.

Phone: 692726.

METAL LABELS MFRS.

## PRAGNA METAL LABEL MFG. CO.

62, Bhavanishankar Road, Dadar (West), Bombay 28.

Manufacturers of all kinds of metal labels; Specialised in Anodised Aluminium & Brass labels, Dial Plates for Radios, Meters etc.

Phone: 451956.

Grams: "PRAGMEBEL."

#### METAL MERCHANTS

## CHOONILAL MOHANLAL & CO.

(Estd. 1953)

Importers & Dealers in Non-Ferrous Metals & Alloys i.e. Aluminium, Brass, Copper & Phosphor Rods, Tubes, Sheets, Sheetings, Wire & Welding Rods; specialists in Refrigeration—Copper Tubings & Cappillary.

Shop No. 54, Kika Street (Gulalwadi), Bombay-4.

Phone: Office: 333904; Resi.: 335886.

## METAL MANUFACTURERS IAIPUR METALS & ELECTRICALS LTD.

Kamani Chambers, Nicol Road, Ballard Estate, Bombay I BR. Phone: 268261. HEAD OFFICE: Near Railway Station, Jalpur. Phones: 74251 & 72089. MANUFACTURERS OF: Hard-Drawn Bare Electrolytic Copper Conductors, Cadmium and Copper Stranded Conductors, House Service Meters, Phosphor-Bronze, Copper Rolled Rods, Hard-Drawn Copper Wires and Strips, Cadmium Copper Wires, Bright Enamelled Copper Wires, Tinned Copper Wires, Polyester-Base Synthetic Enamelled Copper Wires and Strips, A.A.C. and A.C.S.R., Arsenical Copper Rods, Copper Strips, Brass Rods & Wires. Also Importers of Copper and other Non-Ferrous Metals, Component Parts of House Service Meters, etc. MANAGING AGENTS: Poonamchand and Brothers Private Ltd.

## METAL MANUFACTURERS

## METALLICA WORKS PVT. LTD.

138/141, Govt. Industrial Estate,

Kandivli (West), Bombay 67 (NB).

Phone: 693211 (8 lines).

Makers of Non-ferrous Metals, Alloys, Castings, Anodes, Lead Sheets and Lead Wool.

## METAL MFRS. & MERCHANTS

## KAMANI METALS & ALLOYS LTD.

Kamani Chambers, Ballard Estate, Bombay I BR. Phone: 268261. Manufacturers of: Brass, Copper, Phosphor Bronze & Zinc Sheets, Strips & Coils for Industrial purposes. Factory & Sales Office: Lal Bahadur Shastri Marg, Kurla, Bombay 70 AS.

Phone: 555561.

## METAL MFRS. & MERCHANTS

## **BOMBAY METAL SYNDICATE**

Sole Selling agents in India for Vereinigte Deutsche Metal-Lwerke A.G. (Germany) for Aluminium, Brass, Copper Rods, Sheets, Tubes, Wires, Strips and Radiator Strips for Automobile Industry and Copper Tubings for Air-conditioning & Refrigerating Industry.

166, Kika Street, Gulalwadi, Bombay-4.

Phone: 331873 & 333601.

Grams: 'ABBRASIVE,' Telex: BMS-2030.

## METAL MFRS. & MERCHANTS

## G. K. KANSARA

Phone: 334925

118, Kansara Chawl, 1st floor, Kalbadevi Road, Bombay 2.

Manufacturers of :

Stainless Steel Apparatuses for Chemical, Industrial,

Pharmaceutical & Oil-Acid Tanks.

Wholesale and Retail Dealers in:

18/8, Non-Magnetic, Acid resisting weldable, Quality Sheets, Strips, Rods, Pipes, Wires & Plates in any gauge with Standard Sizes

TRADE INQUIRIES SOLICITED.

## METAL MFRS. & MERCHANTS



\* SPECIAL STEEL

## VARIETY (AGENTS) PVT. LTD.

Head Office: 15, Cawasji Patel Street, Bombay-1.

Phone : 250063. Grams : "ZAPPALLOY".

Telex : 2729.

Branch: 22B, Pusa Road, New Delhi-5.

Phone: 584443. Telex: 631.

## METAL MFRS. & MERCHANTS

## SHUJA METAL CENTRE

55-57, Nakhuda Street, Bombay-3.

Phone: 322361. Grams: "SHUJAMETAL."

Direct Importers and Stockists of Copper, Brass, Stainless Steel, Aluminium and Phospher Bronze Rods, Pipes, Sheets, Sheathings, Wires, Strips & Tin, Lead, Zinc Ingots, Gun Metal Rods & Bushesi,

etc

## METALLISED PAPER & PLASTIC FILMS MFRS.

## CHEMICOAT LTD.

Regd. Office & Works: P. O. Atladra, Dist. Baroda.

Manufacturers of:-Metallised Paper and Metallised Plastic Film, Stamping Foil, Metallic Yarn etc.

> Phones: 3834 and 3945. Grams: 'COATEDWARE'.

## MILK & MILK PRODUCTS NESTLE'S PRODUCTS (INDIA) LIMITED

Head Office: Post Box No. 427, New Delhi-1.

Branch Offices:

Post Box 315, Bombay-I. Post Box 396, Calcutta-I. Post Box 1476, Delhi-6. Post Box 2419, Madras-2.

Tele. Address: NESTBRAND

Products: Nescafe Instant Coffee, Milkmaid Full Cream Sweetened Condensed Milk, Lactogen Full Protein Milk Food for Infants, Nestum High Protein Cereal Food, Nespray Full Cream Milk Powder, Eledon Acidified Buttermilk.

## MILL GIN STORE SUPPLIERS

TRADECO (INDIA)

Importers, Exporters and Mill Store Suppliers Prospect House, 29, Ragunath Dadaji Street, Bombay I.

Grams: "PRODUCTION". Phone: 261641. Wholesale Importers and Indentors of British and

Foreign make Textile Accessories.

Specialists in:

Healds, Reeds, Shuttles, Beltings, Picking Bands, Pickers, Buffers, Picker Savers, Cotton Ropes, Cotton Bandings, Spindle Tapes, Card Cans, Hair Beltings and Wire Healds.

## MINE OWNERS

## DAMODAR MANGALJI & CO. (PVT.) LTD.

Afonso de Albuquerque Road, Panaji, Goa.

Mine-Owners, Exporters & Importers, " Esso-Gas " Sole Distributors.

Tel. Grams: "RAJANI"

Post Box No. 32

Phone: 381 (3 Lines)-384 Gas Dept.

## MINERAL MERCHANTS

## INDUSTRIAL MINERALS & CHEMICAL CO. PVT. LTD.

Dealers in Minerals, Ores, Chemicals and Insecticides.

125, Narayan Dhuru Street, Nagdevi, Bombay 3.

Phones: Office 323721 (3 lines). Grams: "IMCHEL".

## MINERAL MERCHANTS

## MEHTA MINERAL CORPORATION

9, Buona Casa Bldg., 15, Sir P. Mehta Road, Bombay 1.

Mine Owners, Manufacturers can supply Light Magnesium Carbonate, Bentonite, Calcite, Dolomite, Feldspar, Talc, Quartz etc.

Phone: 258226

## MINERAL & FERRO ALLOYS MERCHANTS MINERAL & FERRO ALLOYS

Minerals Bentonite Powder, Fluorspar, Talcum Powder, Silica Flour, Graphite Flakes, Powder, Cupola Bricks, Refractory Cement, Graphite Electrodes, Ferro alloys; Virgin Metals, Ferro Silicon, Silicon Metal, Manganese Metal, Ferro chrome High/low Carbon, Ferro Tungsten, Ferro Molybdenum, Vanadium, Ferro Manganese High/ low Carbon etc.

Contact:

ROYAL MINERALS & METALS Royal Building, Relief Road, Kadiakui, Ahmedabad-I. Phone: PP20823. Grams: 'ALLOYS'

### MINERAL MERCHANTS

For Your Requirement of CALCITE POWDER (Industrial Grade), CALCIUM CARBONATE, BENTONITE (Yellow & Green) Fireclay & other minerals.

#### Contact:

## GUJARAT MINERAL SYNDICATE

1/3, Essaji Street, Mandvi, Bombay 3. Phones: 324737, 320761.

#### MOTOR BODY BUILDERS

## **BHARATI WORKSHOP**

(Estd. in 1947)

Coach Builders, Engineers & Manufacturers' Approved
Contractors on Government list.

Office & Factory: 167, C. S. T. Kalina Road, Bombay 29.

Phones { Factory : 536467 Office : 531377 Res. : 531378

## MOTOR BODY BUILDING MATERIAL

Contact :-



Importers & Stockists of : Jaggers Motor Body Fittings, P.V.C. Leather Cloth, Upholstery Materials, Rubber Matting and Auto Seat Covers.

Ist Floor, Contractor Building No. 1, Prarthana Samaj Corner, Bombay 4.

Grams: "JAGJYOTI" Bombay. Phone: 353446

## MOTOR (BUS & COACH) BODY BUILDING MATERIALS

## MAHOMEDALLY NOORBHAI & CO.

144-148, Ibrahim Rehmatulla Road, Bombay-3 (BR).
Phones: 333068 & 333763.

Grams: "CABRUBBER", Bombay-3.

Branch: 105, Mannady Street, Madras-1.
Phone: 21820.

Direct Importers, Dealers in Motor Carriage, Bus Body Fittings, and Accessories, Hood and Upholstery Materials, P.V.C. Leather Cloth, Aluminium Section and Circles, Celluloid Sheets, Rubber Mattings, Flag Brand Cab Tyres; Branches at: Calcutta & Lucknow.

## MOTORS, MOTOR CYCLES PARTS & ACCESSORIES

## AUTO ACCESSORIES (INDIA) LTD.

Manufacturers of:

K.L.G. & TAFF Spark Plugs, Bicycle Tube Valves & Components for the Automobile & Cycle Industry.

Office:

Forbes Bldg., Home Street, Bombay 1. Telephone: 268081.

Grams: "NEWPHASE" (FT), Bombay.

Factory:

Masrani Estate, Old Kurla, Bombay 70.

### MOTORS & TRUCKS (AUTOMOBILES)

## **IDEAL MOTORS**

Distributors of: Jawa Motor Cycles, Cycles and Spare Parts. Service Dept. Bombay Mutual Annexe, Cawasji Patel Street, Fort. Phone: 262660 and Head Office: Sitaram Building, Dr. Dadabhoy Naoroji Road, Bombay I.

Phone: 263485. Grams: "IDEALMOTOR."

## MOTORS & TRUCKS (AUTOMOBILES)

## DADAJEE DHACKJEE & CO. PRIVATE LTD.

Automobile Engineers; Dealers for IEEP FC-150 & FC-160 Full Forward Control Chassis; LAMBRETTA Scooters & Three-Wheeler Delivery Van & Rickshaw Chassis; Patentees of Specially designed "PR" type streamlined Vans on Lambretta Three-Wheeler Chassis; Distributors for Rolls-Royce, Bentley, Hillman, Humber & Sunbeam Cars and Commer & Karrier Commercial Vehicles; Importers & Derlers of Automobile Spare Parts & Accessories; Manufacturers of "NULIFE" Automobile Batteries; Distributors for Pentol Additive; Kerosol Kerosene Additive and All-in-One domestic Jubricating Oil.

Sandhurst Bridge, Bombay-7.

Grams : " PROMPT ", Bombay-7.

Phones: 352321 (3 Lines); Worli Workshop: 374629.

## MOTOR CARS & TRUCKS

### SAH & SANGHI

Sole Distributors for SHAMA Pistons, Hinges and Valves; Dealers for Vespa Scooters, Vespa Pick-up vans, Tempo Three-wheeler vehicles, Tempo Viking Four-wheeler Petrol vehicles, Matador Four-wheeler Diesel vehicles, Hindustan Trucks and Ambassador Cars.

Sales & Adm. Office: "Girl Kunj ", 11C, Hughes Road, Bombay-7. Phone: 359461. Telex No. 011-3259. Grams: "CLOCKWORK". Sales & Service Organisation at Thana: Bombay-Poona Road, Navpads. Phone: 592535.

Heavy Repair Shop at Worll: Prakash Mills Compound, Off Globe Mill Passage, Phones: 374991, 379203.

Tempo Division: Jail Road, Opp. B.D.D. Chawl No. 110, Bombay 13. Phone: 378327.

Service Station : Worll. Phone : 371704.

#### MOTOR CARS & TRUCKS MFRS.

## PREMIER AUTOMOBILES LTD.

Registered Office :

Construction House, Walchand Hirachand Marg, Ballard Estate, Bombay I (BR).

Phones: 262125-26. Grams: "PREMOBILES".

Factory and Adm. Offices: L. B. Shastri Marg, Kurla, Bombay 70 (AS). Phone: 555111.

Manufacturers of: Dodge, Plymouth, Fiat Cars, Premier Dodge, Premier Fargo & Premoto Trucks, Premair Room Airconditioners & Meadows Industrial & Marine Engines.

## NEWSPAPERS & PERIODICALS (MONTHLY)

## MOTHER INDIA

(Formerly Filmindia).

The Most Exciting Magazine in the World. The largest circulated Monthly Magazine in India, Sir Phirozshah Mehta Road, Fort, Bombay, India. Price Rs. 3 per copy. Annual subscription Rs. 35 (Inland); Rs. 63 or 70 Shillings (Foreign); Mg. Editor: Baburao Patel, Editorial Director: Mrs. Sushila Rani Patel, Manager: Mr. Suryakant Patel. Advt. rates Rs. 7.20 per col. cm. (5 cm.) and Rs. 9.60 per col. cm. (7 cm.). For 1st and 4th Cover 3 Colours, Centre Spread 2 Colours and other Special Advertisement, Special quotations will be given from month to month. Phone No.: 261752.

### **NEWSPAPERS & PERIODICALS**

## NAGPUR TIMES

Largest net sales in English
Newspaper in the Central Region.

Ramdas Peth, Nagpur I.

Phones: 22035 & 26770.

Managing Editor & General Manager: A. G. Sheorey.

### **NEWSPAPERS & PERIODICALS**

### **EVE'S WEEKLY**

(India's Premier Women's Magazine).

Sanj Vartaman Press, Apollo Street, Fort, Bombay.

Price: 50 Paise per copy (pp. 52). Annual Subscription Rs. 26 (Inland), Rs. 42 (Foreign). Editor: Gulshan Ewing. Advt. Manager: B. R. Chopra. Advertisement Rates: Casual—Full Page Rs. 1,000, Half Page Rs. 500, Quarter Page Rs. 250. Contract: Full Page Rs. 900, Half Page Rs. 450, Quarter Page Rs. 225. Colour Page Rs. 1,500 plus 10 per cent Surcharge (I.E.N.S.).

Phone: 258004. Grams: "EVE's WEEKLY."

## **NEWSPAPERS & PERIODICALS**

## THE INDIAN TEXTILE JOURNAL

The only journal of its kind (Estd. in 1890) covering the manufacturing and marketing aspects of Cotton, Silk, Synthetic, Jute and Woollen textiles. Features technical illustrated articles by experts, editorial comments on important developments, news briefs and special reports on new products and processes. Has wide national and international circulation.

Published monthly by :

## THE INDIAN TEXTILE JOURNAL PVT. LTD.

Surya Mahal, Military Square Lane, Bombay I BR. Phones: 252943/255959. Cable: "JOURNAL".

## **NEWSPAPERS & PERIODICALS**

## INDIAN NATIONAL PRESS (BOMBAY) LTD., THE

Publishers of:

"FREE PRESS JOURNAL"

"FREE PRESS BULLETIN"

"BHARAT JYOTI"
"NAVSHAKTI"

"JANSHAKTI"

Office: 21, Dalal Street, Bombay 1.
Telephones: 259031, 259030 & 259039.
Managing Director & Editor: Mr. A. B. Nair.

## **NEWSPAPERS & PERIODICALS**

## THE KESARI

(i) Daily Kesari, (ii) Mahratta (Annual), (iii) Sahyadri (Marathi Monthly)

(Proprietors: Kesari - Mahratta Trust, Poona)

Editor: J. S. Tilak, M.P. Manager: S. V. Nagarkar

Address: 568, Narayan Peth, Poona-30. Phones: 55095, 56356, 55615.

## **NON-FERROUS METALS**

## KAMANI TUBES PRIVATE LTD.

Kamani Chambers, Nicol Road, Ballard Estate, Bombay-I BR. Phone: 268261. Manufacturers of: Non-ferrous Rods and Sections, Pipes & Tubes.

Works: Lal Bahadur Shastri Marg, Kurla, Bombay-70 AS. Phone: 555561.

#### NON-FERROUS METALS

## BRALCO METAL INDUSTRIES PRIVATE LIMITED

Successors to Devidayal Metal Industries.

Regd. Office: Gupta Mills Estate, Reay Road, Darukhana, Bombay 10.

Phone: 378561 (3 Lines). Grams: "GINGER". Telex: 2684.

Manufacturers of Aluminium, Copper and Brass Sheets, Sheathings, Strips, Circles, etc.

## NON-FERROUS METALS & ALLOYS

## DINESHKUMAR & CO.

5, Tambakanta, Bombay-3 BR.

Manufacturers, Importers, Stockists and Dealers in Brass, Copper, Aluminium Rods, Pipes, Sheets, Sheathings, Flats, P.B. Rods & Sheets, Tin, Zinc, Lead & Refrigeration Copper Tubing.

Phone: 328506.

Grams : " ROUNDPIPE ".

## OFFICE EQUIPMENT MFRS.

## KHODAY INDUSTRIES PVT. LTD.

No. 10

I, Main Road, Gandhinagar, Bangalore 9.

Manufacturers of: Quality Typewriter Ribbon, Carbon Papers of all Varieties, Stamp Pads, Duplicating Inks, Paper Pins, Gem Clips, Flexible Packaging Paper Bags, Drinking Straws, Waxed Twist Wrappers, etc.

## OFFICE REQUISITES & EQUIPMENT MANUFACTURERS

## METHODEX BUSINESS SYSTEMS

33-A, New Marine Lines, Lotus House, Bombay-20. Grams: "METHOBUSSY", Phone: 294173; Registered Office and factory at 35-A, New Industrial Estate, Post Box No. 63, 'INDORE', Grams: 'METHODEX', Phone: 34000; Sales Offices in Delhi, 3/4-A, Asafali Road, Grams: 'METHODEX', Phone: 274270; P-38, Mission Row Extension, Calcutta-12, Grams: 'VISICARDS', Phone: 237535/29; Langford Road, Bangalore-25.

OFFSET PRINTERS

## BOLTON

FINE ART LITHO WORKS
(ESTABLISHED 1909)
274 TARDEO ROAD, BOMBAY 7

Photo-offset printers who undertake multi-colour quality work of precision. Accurate and faithful reproduction guaranteed. Winners of numerous National, State and CAG awards and A.I.F.M.P. trophies.

> Phones: 367411 (4 lines) Grams: Boltonlito, Bombay 7.

#### OIL BURNERS

## NESTLER BOILERS PVT. LTD.

Manufacturers of : Oil Burners.

Head Office & Works:

Love Lane Cross Lane, Byculla,
Bombay 27.

Phone: 373137/38.

Grams: 'NESTLER'.

Telex No. 011-3334.

## OIL MILLS & OIL PRODUCTS MFRS.

## BHAVNAGAR OIL & CHEMICAL INDUSTRIES PRIVATE LTD.

Manufacturers of:—Medicinal Castor Oil, Refined Groundnut Oil, Salad Oil, "CASTAROMA" Hair Oil, Perfumed Castor Oil etc.

Sales Office:—Bombay Mutual Building, D. Naoroji Road, Bombay I.

H. O. & Factory:—Mahatma Gandhi Road, Bhavnagar.

Managing Director:—D. M. Merchant.

## OIL MILLS MACHINERY MFRS. & DEALERS

## B. KUMAR METAL WORKS

Sitafalwadi, Mount Road, Mazagaon, Bombay-10.

Phone: 373094. Grams: "BEKUMAR."

Engineers, Manufacturers and Contractors; Specialists in Oil Mill Machinery, Crank Shafts, Connecting Rods and other spares.

#### OIL REFINERIES

## BURMAH-SHELL REFINERIES LTD.

(Incorporated in India)

## Administration Office:

Burmah-Shell Refineries Site, Mahul, Rombay 74 (AS). Grams: "BESREFIN", Phone No. 521421 (25 lines) Telex No. 2758. Post Box No. 1725, Bombay 1 (BR).

### OPTICAL GOODS MFRS.



## MONTEX CORPORATION

Manufacturers & Exporters of Spectacle Frames & Sun-Glasses.

Yusuf Building, Mahatma Gandhi Road, Fort, Bombay-I.

Phone : 252835. Grams : "ANNALIST ".

Telex: 229-Bombay.

#### **OXYGEN & GAS FACTORIES**

## SANGHI OXYGEN

Office: 39A, Hughes Road, Bombay 7. Phones: 357831 & 357832.

Factory: Mahal Industrial Estate,

Mahakali Caves Road, Bombay 56.

Phone: 573749.

Managing Director: R. K. Sanghi.

Director: M. K. Sanghi.

### PACKING

## MOHAMADI FINE ART LITHO WORKS

Proprietors: Allibhoy Sharafally & Co., Private Ltd. (Estd. 1878; Incorporated: 1938). Mohamadi Buildings, Gunpowder Road, Mazagon, Bombay 10 (DD). Lithographers, Offset and Letterpress Printers and Carton Manufacturers. Phones: 378148 & 378149.

Grams: "KORAN".

#### PACKAGING

## JAYANT PAPER BOX PVT. LTD.



Largest Manufacturers of:
Heavy Duty Corrugated Export
Containers, Printed Cartons,
Boxes in various plies, Corrugated Paper Rolls, Boards, Liners
and other Packaging Requisites.

Regd. Office: 30, Western India House, Sir Pherozeshah Mehta Road, Bombay I.

Phones: 250390, 258845. Grams: "FIBREBOX". Factory: Jayant House, Bail Bazar, Kurla-Andheri Road, Kurla, Bombay 70. Phones: 555237 & 555238.

#### PACKAGING

## POLYFAB INDUSTRIES

Manufacturers & Dealers:

Waterproof Paper, Paperlined and Polythenelined Hessian Bags, Gunnies, Canvas, Twine & Hessian Cloth. 67, Bhandari Street, Bombay-3. BR

Phone: 324737.

#### PACKAGING

## **PLASTICOTED**

Paper, Jute, Canvas

H. D. Polyfabric

Plain or Plasticoted in Bags or Rolls

Akshay Trading Co. 36, Essaji Street, Bombay-3.

#### PACKAGING

## EVEREST PACKAGING CORPORATION

Agra Road, Bhandup, Bombay-78.

Phone: 581255.

Manufacturers of: Corrugated Shipping Containers, Cartons, Corrugated Paper & Boards. Outer boxes and Paper Packing requisites.

#### PACKAGING

### COLOUR CARTONS LIMITED

Specialists in the manufacture of: Packaging materials for pharmaceutical, cosmetics, food, detergents, engineering and other consumer industries. Head Office: Tiecicon House, Dr. E. Moses Road, Bombay-11. Phone: 377381. Factory: Lake Road, Bhandup,

Bombay-78. Phone: 593951.

## PACKAGED STEAM BOILER MFRS.

## WANSON (INDIA) PVT. LIMITED



Brown Boveri House, 264-265, Dr. Annie Besant Road, Bombay 25.

Phones: 457381, 457382.

Grams: "VAPORAX", Bombay — Jacob Circle.

Manufacturers of VAPORAX fully-automatic Oil
Fired heavy duty packaged steam Boilers. VaporJet Steam Cleaners/Hot Water Boilers. Thermopac
(Thermic Fluid Boiler), Liquid plate Heaters,
Agricultural Machinery such as grain Dryers etc.

Branches: Calcutta, Delhi, Madras.

### PAINTS MFRS. & MERCHANTS

### MERA CHEMICALS

Shradhanand Marg, Delhi 6.

Metalac Cellulose Lacquers for Cars, Fans, Pencils, Wood, Rubber, Leather, Aircraft Dopes, Thinners, Bakelux Synth Stoving & Airdrying Enamels, Rust Pretreatment Chemicals.

Phones: 264521 & 262804.

#### PAINTS, ENAMELS & VARNISHES



Chief Stockists:

## KAPADIA BROTHERS

Paint Merchants & Paintings Contractors of Repute. 81, Abdul Rehman Street, Bombay 3. Phone: 324108. Grams: "DECORATORS".

### PAINTS, ENAMELS & VARNISHES

## FORAGE & CO.

Manufacturers of:

All kinds of white Zinc Paints, Stiff Paints, Ready mixed Paints, Varnish Paints, Enamels, Varnishes. Oil Bound Distempers, etc.

Famous Brands: "NEOLA", "RAINBOW" &
"NEOLITE".

36, Tamarind House, Tamarind Lane, Bombay 1.

Phones: 258083 & 373902. Grams: "FORAGECO".

## PAINTS, ENAMELS & VARNISHES

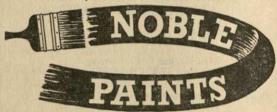
## STAR PAINT & OIL INDUSTRIES

Crescent Chambers, 56, Tamarind Lane, Bombay I.

Manufacturers of: Industrial, Marine and Building Paints; Natural & Synthetic Enamels. Specialist in "SILVEX" Aluminium Paint, Multipurpose & HEATEX ALUMINIUM PAINT, High Temperature Heat Resisting upto 600°C. Rubberex Rubber Paint (For Chemical Resisting).

Phones: 253493 & 297704. Grams: "STARPAINT".

## PAINTS, ENAMELS & VARNISHES



### NOBLE PAINT & VARNISH CO. PRIVATE LIMITED

Fergusson Road, Lower Parel, Bombay 13.
Phone: 373123/4 TELEX: 011-2844 (Nobles).
Manufacturers of high quality Industrial & Domestic Paints for the past 36 years.

## PAINTS, ENAMELS & VARNISHES

## LEAD SLIPS PRODUCTS PVT. LTD.

Manufacturers of: 'FLOWLUX' brand Paints, Lacquers and Thinners

and also

Lead Slips for Pencils

61, New Cloth Market, Ahmedabad-2.

Phone: 53515 Grams: 'LEADSLIPS'

## PAINTS, LACQUERS & THINNERS

### **BAKER BROTHERS**

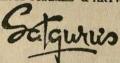
Paints, Enamels, Varnishes, N. C. Lacquers and Thinners for all purposes; Suppliers of Sticking Solution for Polysterene Plastic.

31, C. P. Tank Road, Bombay-4.

Phone: Office: 334421; Factory: 370207.

Grams: 'BAKERCOLOR'.

## PAINTINGS-FRAMES & ARTWORKS



## FRAME CRAFTS

333, Dr. D. Naoroji Road, Bombay I.

Phones: 250066 Factory: 370179 Office: 254516

Grams: "FRAMESTYLE".

HOUSE OF PAINTING & FRAMES

#### PAPER & BOARDS

## PRAHLADRAI DALMIA & SONS

Authorised Distributors for : Rohtas Industries Ltd., Dalmianagar. Bombay Sales Agencies.

Authorised Distributors for :

The West Coast Paper Mills Ltd., Dandeli. The Andhra Pradesh Paper Mills Ltd., Rajahmundry.

51/52, Poddar Chambers, Parsi Bazar Street, Fort, Bombay-1.

Phones: 258513, 250165. Grams: "PANQUICK."

### PAPER & BOARDS

## CHIMANLAL PAPER CO.

Importers of:

High Grade Papers, Boards & Mill Representatives.

MacMillan Bldg., 1st Floor, Dr. Dadabhoy Naoroji Road, Bombay I.

Tel. Add.: "SELECTION."

Phone Nos.: 262041/42, 262210 and 532060 (Res.).

#### PAPER & BOARDS

## **GANDHI BROTHERS**

203, Dr. Dadabhoy Naoroji Road, Bombay I.

Phone: 261345, 266241.

Sole Concessionaires for :

"Silver Seal" Gummed Label and Stamp Papers, Transfer Decal Papers, V.P.I. Papers, Self Adhesive Label Papers and wholesale dealers in Papers, Boards, Adhesive Tapes and Gummed Tapes.

### PAPER & BOARDS

## JAYANT PAPER MILLS LTD.

Regd. Office:

Utran, Dist. Surat, Phone: 26475.

Bombay Office: Western India House, Sir P. M. Road, Bombay-I. Phones: 250390, 253642.

Central Office:

Resham Bhuvan, Lal Darwaja, Surat-3. Phone: 26464.

We manufacture: Kraft Paper, File Board, Pulp Board, Grey Board, White Duplex Board, Food Board, Base Paper for Textile Tubes, Cone Board, Ticket Board, Brown Wrapping Paper.

#### PAPER & BOARD MFRS.

## SWASTIK PAPER INDUSTRIES

Manufacturers of:

"PAGODA" brand Corrugated Paper & Boards.

Office: Sewree Cross Road, Bombay 15.

Phones: 445714 & 441723.

#### PAPER CONVERTERS

## IDEAL WRAPPERS PVT. LTD.

Manufacturers of : Himalaya Drinking Straws ; Paper Converters, Waterproof Kraft Paper, Waxed Paper and other Laminated Papers.

> Advani Chambers, Sir P. M. Road. Fort, Bombay.

COffice : 260031. Phones Factory : 591444.

Grams: "LAMINATED ".

## PAPER CONVERTING MACHINES **MANUFACTURERS**

## INDUSTRIAL PAPER MACHINES PVT. LTD.

63, Najafgarh Road, New Delhi-15.

Specialise in Machinery Manufacturing of Paper Bag, Paper Slitting, Drinking Straw Plant, Paper Sheeting (Square Cutting), Flexographic Printing and Coating Machines.

Phone: Res.: 72923; Factory: 585656.

### PAPER MANUFACTURERS

## TRIBENI TISSUES LIMITED

Area Office for Western India: New Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay-I. For Cigarette and other High Grade Speciality Tissues. Also Representatives for all qualities made and distributed by the Wiggins Teape Group.

Telegrams: "WINCHMORE".

Phone: 261622.

## PAPER MERCHANTS

## MAEVY & COMPANY

Nawab Building, 4th Floor,

327, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Importers & Stockists of all grades of Paper and Boards.

Phone: 258135. Grams: "EDRIBAK".

#### PAPER MERCHANTS

### GPS SYNDICATE

Dealers in :

Greaseproof, Glassine and other Speciality Papers.

Syndicate Bank Bldg., Sir P. M. Road, Bombay I.

Phones: 261880 & 261885. Grams: "GRISPROOF".

Branch: 30, Govindappa Naick Street, Madras 1.

#### PAPER MERCHANTS

## ABDULLABHAI FIDAALLI & CO.

Estd. 1890.

Indenting Agents & Stockists of all kinds of :—Paper Boards & Newsprint.

18, Shanalda Gandhi Marg, Bombay 2.

Phones: 315407 & 319977. Grams: "PAPERPORT". Telex By-2812.

Branch at : Nagpur.

### PAPER MERCHANTS

## JAI DAYAL KAPUR

Wholesale Paper Merchants, Distributors for Shree Gopal Paper Mills Ltd., Jagadhari and Ballarpur Paper and Straw Brand Mills Ltd.

31, Sutar Chawl, Bombay-2.

Phones: 328848 & 328849. Grams: "JAIKAPSO".

## PAPER MERCHANTS

## ASOK BROTHERS PRIVATE LTD.

Importers of all sorts of Paper & Boards.

104, Apollo Street, Fort, Bombay.

Tel. Address: "ASOKBROS".

Phone: 254329 (Office) and 368118 (Res.).

#### PAPER MILLS

## AJANTA PAPER & GENERAL PRODUCTS PVT. LTD.

Manufacturers of: High grade M. G. White & Coloured tissue paper, M. G. poster, M. G. Blue Candle, M. G. tea yellow & all kinds of M. G. papers.

Vadavali, P. O. Kalyan, Dist. Thana.

Grams: "AJANTA PAPER", Kalyan. Phone: 295, Kalyan Factory.

### PAPER SPOOLS FOR COMPOSING MACHINES

## PAPER PULP & MACHINE CO.

7, Kumpta Street, Ballard Estate, Bombay-I.

Phone: 263386 Grams: "LIONBRAND"

Sole importers into India of the Products of John Dickinson & Co., Ltd., London.

#### PAPER STRAW BOARDS

## THE ROYAL PAPER STORES

Direct Importers & Stockists of all kinds of Paper, Straw Boards and Bookbinding Materials.

187-89, Abdul Rehman St., Mapla Building, Bombay 3.

Phone: 321103.

Grams: "ROSTOPAPER."

Trade Enquiries Solicited.

### PENCIL MFRS.

## HINDUSTAN PENCILS PRIVATE LTD.

Manufacturers of: All types of Pencils.

Office: 111/112, Himalaya House, 79, Palton Road, Bombay I.

Telephone: 261972.

Telegram Address: "WRITESFINE". Managing Director: Mr. B. J. Sanghvi.

Directors: Mr. P. P. Sanghvi, Mr. K. B. Sanghvi.

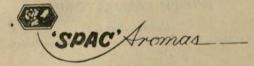
#### PERFUMERS



## PEARLINE-PARIS PRIVATE LTD.

Manufacturers of : Hair & Beauty Specialities. Rahman Bldg., 24, Veer Nariman Road, Bombay I. Grams: "PEARLAB". Phone: 250037.

## PERFUMES & ESSENCES



Manufacturers of:

Industrial Perfumes & Flavouring Essences. 3-B, Mangaldas Bldg., 29, Mangaldas Road, Bombay 2.

Phone: 314473.

Grams: "AROMASPAC".

#### PERFUMERS

## N. R. SHAH & CO.

Mulchand Mansion, Princess Street, Bombay-2.

Phone: 310093.

Grams: "WALFLOWER".

Dealers in :

Perfume & Perfumery Raw Materials, Aromatic Chemicals, Essential Oils and all other chemicals.

## PERFUMERS & PERFUMERY RAW MATERIALS

(Estd. 1945)

Office: 318057 Grams: Factory: 591462 "PANBILAS", Bombay 2. Phones For refreshingly fragrant perfumes whether floral or fancy

Enquire with:

## NEW INDIA AROMATICS CO.

Entrust us with your perfuming problems Office: Factory:

Plot A-6, M.I.D.C., N Road, THANA (Maharashtra). 45/47, Princess Street, BOMBAY-2.

PERFORATED METALS

## HARISCHANDRA & CO., JALIWALA

Perforated Metals, Sheets, Expanded Metal & Wire Nettings Manufacturers & Suppliers.

233, Abdul Rehman Street, Bombay 3.

Phone Nos.: 322907 & 323161; Resi.: 365181.

Grams : "HARIJALI".

## PERFORATED METALS MFRS. **METAL PERFORATORS** PRIVATE LTD.

Manufacturers of: Industrial Metal Screens in any Sheet Metal & Material, Mild Steel, Stainless Steel, Brass, Copper, Aluminium, Monel & Zinc etc.

Regd. Office & Factory: Udhna (Dist. Surat).

Telex: 018-218 Udhna. Phone: 8310. Bombay Office: Annes Chambers, Carnac Road,

Bombay 1. Telex: 011-2624 Bombay. Phone: 263001.

Grams: "DUTYBOUND".

### PERFORATED METAL SHEETS

## METAL PERFORATORS

Manufacturers of :

Perforated Metal Sheets in Zinc, Copper, Brass, Steel and Stainless Steel etc.

43, Abdul Rehman Street, Bombay-3.

Phone: 325837.

## PERFORATED SHEETS MFRS.

## HARISHCHANDRA PERFORATORS

Harishchandra Jaliwala Road.

Gopalpura, Kapadwanj (W. Rly.), Gujarat.

Manufacturers of: Perforated Metal Sheets in Round, Square, Oblong, Slotted, Conical, Oval Perforation in all metals on complete automatic plant.

Phones: 170 & 250.

Grams: "HARISHCHANDRA JALIWALA"

We supply as per Buyers' specifications.

## PERFUMERS & PERFUMERY RAW MATERIALS

## PATANWALA PRIVATE LTD.

182-84, Abdul Rehman Street, Bombay 3.

Phone: 322899. Grams: "OTTODUNYA."

Dealers in Cosmetics, Toilet Goods and Perfumery.

## PEST CONTROL

## PEST CONTROL (INDIA) PRIVATE LTD.

Consulting Entomologists — Termite Control — Disinfestation — Fumigation Service.

Grams: "PESTCIL" Phones: 251546-7-94
H.O. Yusuf Bldg., Mahatma Gandhi Rd., Bombay-I.

Branches all over India.

(For further details please see Bombay Commercial Firm section)

### PETROLEUM AND OIL COMPANY

## GULF OIL (INDIA) PRIVATE LTD.

Steelcrete House, 3, Dinsha Wacha Road, Bombay 20.

Phone: 295131 (3 lines.) Grams: "GULFINDIA".

Importers and Distributors of High Grade Lubricants.

Area Offices: Ahmedabad, Indore and Madras.

### PETROLEUM PRODUCTS

## SAVITA CHEMICALS PVT. LTD.

Manufacturers of:

"Liquid Paraffins IP, Snow White, Yellow Petrolatums IP Hydraulic Brake Fluid, Soluble Cutting Oils, Sodium Petroleum Sulphonate, Petroleum Specialities, etc.

Commissariat Building, 5th Floor, 231, Dr. Dadabhoy Naoroji Road, Bombay I.

Phones: 265446, 263807. Grams: "SOLVO".

#### PETROLEUM PRODUCTS

## RAJ PETROLEUM PRODUCTS

Dealers in Petroleum Products. Specialists in reclaiming used lubricating oils.

359, Narsi Natha Street, Bombay 9 BR.

#### PHARMACEUTICALS

## NYMPH LABORATORIES

Manufacturers of :

Antibiotic Ointments & all kinds of common Tablets.

Enquiries Solicited—

164, Senapati Bapat Marg,

Opp.: Phoenix Mills, Lower Parel, Bombay 13 (BC).

Phone: 376491. Grams: "NYMPHLABS".

## **PHARMACEUTICALS**

## B. A. & BROTHERS (BOMBAY) PRIVATE LTD.

Manufacturing Chemists, Drugs & Pharmaceutical

Distributors, 98, Princess Street, Bombay 2.

Phone: 312939. Gram: "BABULINE".

## **PHARMACEUTICALS**

## MARTIN & HARRIS (PRIVATE) LTD.

Savoy Chambers, Wallace Street, Bombay I-BR.

Phone: 263473-4-5-6-7. Grams: "ROWLETTE".

Manufacturers & Distributors of : Quality Pharmaceuticals and Toiletries.

### **PHARMACEUTICALS**

## WANDER LIMITED

Manufacturers of : Chemicals (Anti T. B. Drugs) and Pharmaceuticals.

Shivsagar 'A', Dr. A. Besant Road, Bombay 18.

Phone: 377765. Grams: "WANDERPAS".

Factory: Sion-Trombay Road, Deonar-Chembur, Bombay 71.

Phone: 523521.

#### **PHARMACEUTICALS**

## BEECHAM (INDIA) PRIVATE LTD.

Manufacturers of Pharmaceuticals and Toiletry
Products.

Beecham House, Pitamberwadi, Off Lady Jamshedji Road, Mahim, Bombay 16.

Phones: 453286 and 453287. Gram: "BEECHIND".

## PHARMACEUTICALS PFIZER LIMITED

Manufacturers & Distributors of a complete range of Pharmaceuticals, Animal Health Products, Pharmaceutical Chemicals, Agro-Chemicals and Nutritional Products. Registered Office: 163, Backbay Reclamation, Bombay 20. Phone: 296031 (10 lines).

Offices & Debots :

Ahmedabad, Ambala, Bombay, Bangalore, Calcutta, Cochin, Cuttack, Gauhati, Indore, Jaipur, Lucknow, Madras, New Delhi, Patna, Secunderabad and Srinagar. Plants: Milepost 9, Thana-Belapur Road, Kalwa, Thana. Phone: 592948.

178, Industrial Area, Chandigarh. Phones: 25295, 23047 & 23048.

### PHARMACEUTICALS

### GEOFFREY MANNERS & CO., LTD.

Manufacturers, Importers & Distributors of Pharmaceuticals, Fine Chemicals, Toilet Requisites and allied products.

HEAD OFFICE: Magnet House, Narottam Morarjee Marg, Ballard Estate, Bombay. Phone Nos.: 26-1361-2-3.

MARKETING & SALES DIVISIONS: Udyog Bhavan, Walchand Hirachand Marg, Ballard Estate, Bombay. Phone Nos.: 26-6002-3.

BOMBAY SALES OFFICE: Veer Savarkar Marg, Dadar, Bombay. Phone No.: 45-3428.

FACTORY: Hattersley Mills Estate, Lal Bahadur Shastri Marg, Ghatkopar, Bombay. Phone Nos.: 58-2361-2-3-4-5.

SALES OFFICES: Calcutta, New Delhi, Madras, Bangalore, Gauhati, Kanpur, Patna, Ahmedabad, Jaipur, Chandigarh, Cochin.

#### PHARMACEUTICALS

### GERMAN REMEDIES PVT. LTD.

Manufacturers and Importers of Pharmaceuticals

'A' Building, 3rd Floor, Shiv Sagar Estate, Dr. Annie Besant Road, Worli, Bombay 18.

Phone: 370632. Cables: "PHARMAGENT".

Factory: Andheri Kurla Road, Bombay 69.

Phone: 573421/2.

## **PHARMACEUTICALS**

## GLAXO LABORATORIES (INDIA)

Registered Office:

Dr. Annie Besant Road, Worli, Bombay-18 WB.

Phones: "BOMBAY", H.O. 454311; Bombay Branch: 457287 & 457280; Calcutta 459195 (4 lines); Madras: 801944 (4 lines); New Delhi: 632269.

Manufacturers of Pharmaceuticals, Corticosteroids, Antibiotics, Vaccines, Oral Contraceptives, Infant Foods, Nutritional Supplements, Fine Chemicals, Laboratory Chemicals, Animal Feed Supplements and Veterinary Products.

## **PHARMACEUTICALS**

C

## ROCHE PRODUCTS LIMITED

Manufacturers of Bulk Vitamins and Roche Pharmaceutical Specialities. Registered Office: 28, Tardeo Road, Bombay-34 (WB). Post Bag No. 7901. Tel. Address: "HOFROCHE", Bombay. Phones: 379921 (9 lines): Telex: 2389. Roche Pharmaceutical Laboratories: 24/26, Tardeo Road, Bombay-34 (WB). Phones: 379921 (9 lines). Chemical Works: Bombay-Agra Road, Balkum (Dist. Thana). Phones: 593508 (2 lines). Delhi Regional Office: Roche Products Ltd., 58, Ring Road, Lajpatnagar III, New Delhi-24. Phone: 622632. Grams: "HOFROCHE", New Delhi.

# PHARMACEUTICALS BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.

6, Ganesh Chunder Avenue, Calcutta-13.

Phones: 23-2165-67 (3 Lines). Grams: "RASAYAN" — Calcutta. Telex: Rasayan — CA — 7773.

Bombay Office: 502, S. V. Savarkar Marg, Bombay 25(DD). Telex: Rasayan — 011-3332.

Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc.

Branch Office: KANPUR.

## **PHARMACEUTICALS**

## CROOKES INTERFRAN LIMITED

Manufacturers of:— Pharmaceuticals, Chemicals & Cosmetics.

Regd. Office:

254-D, Dr. Annie Besant Road, Prabhadevi, Bombay-25 DD.

Tel. No.: 457211 (3 Lines) Grams: "INTERFRAN" Factory:—Majiwada Village, Thana, Maharashtra.

#### PHARMACEUTICALS

## BOMBAY TABLET MANUFACTURING CO.

Sales Depot: 304, Princess Street, Bombay-2.

Grams: "SACCHARIN".

Factory: Tablet House, Near Goregaon Talkies, Goregaon (East), Bombay-63.

Manufacturers of Pharmaceutical Products.

### PHARMACEUTICALS

## PARKE DAVIS (INDIA) LTD.

Pharmaceutical Manufacturers, Saki Naka, Bombay 72(AS).

Head Office for: India and Ceylon.

Telegraphic Address: "CASCARA," Bombay I BR.

Post Box No. 88, Bombay-1.

Factory: Saki Naka, Bombay 72 AS.

Phane - F01471 (0 1:---)

Phone: 581471 (8 lines).

### PHARMACEUTICALS

## RANBAXY LABORATORIES LTD.

Okhla, New Delhi-20. Phone: 631501 (4 Lines).

Manufacturers & Distributors of : Drugs & Medicines of repute.

Managing Director: Bhai Mohan Singh.

Branches: Bombay, Calcutta, Patna, Madras, New Delhi & Kanpur.

Cables: "RANBAXY" Telex: ND-7411.

### PHARMACEUTICALS

## BOOTS PURE DRUG CO. (INDIA)

Registered Office: 17, Nicol Road, Bombay I BR. Phone: 266981. Grams: "DRUGBOOTS", Bombay

Factory: Sion, Bombay 22 DD.

Telephone: 476351. Grams: "BURNOL".

Sales Division :

Sri Sitaram Mills Compound, Delisle Road, Bombay II.

Telephone: 370427. Grams: "PALTAB".

#### **PHARMACEUTICALS**

## MAC LABORATORIES PRIVATE LTD.

Great Social Building, Sir Phirozshah Mehta Road, G.P.O. Box No. 1831, Bombay I.

Grams: "MACLON".

Phone: 265051.

Manufacturing Chemists.

### **PHARMACEUTICALS**

#### ABBOTT LABORATORIES (INDIA) PRIVATE LTD.

Manufacturing Pharmaceutical Chemists, Jehangir Building, Mahatma Gandhi Road, Fort, G.P.O. Box No. 1334, Bombay. Phones: 299605, 299721.

Ahmedabad Depot: Amit Chambers, Mirzapur Road, Lal Darwaja, Ahmedabad; Grams: "ABBOTTLAB".

Madras Depot: Ebrahim Mansion, 3rd Floor, 3, Errabalu Chetty Street, P.O. 1224, Madras 1; Grams: "ABBOTTLAB," Madras; Phone: 24792.

Calcutta Depot: 6/1. Lindsay Street, Calcutta 16.

Grams: "ABBOTTLAB." Phone: 233907.

#### PHARMACEUTICALS

## CHEMO-PHARMA LABORATORIES LTD.

Manufacturers of: Ethical Pharmaceuticals, and Fine Chemicals.

Regd. Office & Factory: C. S. 215, Sewri, Bombay 15.

Grams : "CHEMOLABS ". Phone: 441931.

#### PHARMACEUTICALS

## SIGMA LABORATORIES

Plot No. 43 (South), Wadala, Bombay 31.

Manufacturers of high quality Pharmaceutical preparations and specialists.

Phone No.: 441458.

Grams: "SIGMALAB".

## PHARMACEUTICAL AND LABORATORY **EOUIPMENT**

## FREDERICK HERBERT

Manufacturers of: Electrical Appliances, Pharma ceutical, Scientific & Laboratory Equipment.

10, Second Pasta Lane, Colaba, Bombay.

Phone: 211876.

Grams: "KEDHERBERT".

#### **PHOTOGRAPHERS**

FORWARD STUDIO (KODAK GOLD MEDALIST)

Accredited Press Photographer. For speaking portraits, life like paintings, finished enlargements, design & layout, block making, artistic frame makers, outdoor function photography specialists, be black & white or colour, Cine movie 8 & 16 mm.

Photographic contractors to Admn. Commandant (Army), Bombay, Municipal Corporation of Greater

Bombay, All India Radio, Bombay. Courteous and Quick Service at reasonable rates, Dhutpapeshwar Building, Mangalwadi, J. Shankerseth Road, Bombay-4. Phones: 355225, 355330.

## **PHOTOGRAPHERS**

for service to your satisfaction in

PHOTOGRAPHY - Advertising, Architectural, Commercial, Industrial, Giant Blow-ups Transliles, Outdoor photography.

REPROGRAPHY - Photostat, Microfilming Statfiles. Reproduction of Drawings, Xerox AUDIO-VISUAL Slides, Films Strips

## PHOTO-MASTERS

23, Hamam Street, Bombay I.

Grams: "FOTOMASTER". Phone: 251381.

### **PHOTOGRAPHERS**

#### STUDIO TECHNICA

**PHOTOGRAPHERS** 

TECHNICAL - INDUSTRIAL PHOTOGRAPHY "PHOTOSTAT" PRINTS - MICROFILMING FILM STRIPS - DOCUMENTARY FILMS

2489, Swami Akhandanand Marg, Ahmedabad.

Grams: "STUDIOTECH". Phone: 53268.

Associates in Bombay

PHOTO-MASTERS, 23, Hamam Street, Bombay I.

## PHOTOGRAPHERS & PHOTOGRAPHIC GOODS

### **CENTRAL STUDIO**

Dealers in: Everything in Photographic & Cinematic goods.

By appointment to: The President of India; for everything Photographic and Cinematic. Bashir Bagh, Hyderabad.

Grams: "CENTUDIO". Phones: 32355, 75322.

### PHOTOGRAPHIC GOODS

## KESHO RAM SURINDER NATH

321, Commerce House, 3rd Floor, Medows Street, Bombay 1.

Grams: "INDERPHOTO". Phone: 256466.

Leading Photographic Goods Mfrs., Importers & Wholesalers.

## PHOTOGRAPHIC MATERIALS IMPORTERS DEALERS & MFRS.

## **FORWARD STORES**

Mangalwadi, J. Shankerseth Road, Bombay-4.

Photographic Wholesalers & Retailers. Suppliers of all Photographic goods and equipments such as Cameras, Lenses, Enlargers, etc. etc. Dealers of "AGFA" and "INDU". Fair Price Shop. Courteous Service. We supply to Govt. and Semi-Govt. bodies. An enquiry or a trial will convince you.

Phones: 355225, 355330.

## PHOTOGRAPHIC MATERIALS IMPORTERS AND DISTRIBUTORS

## AGFA-GEVAERT INDIA LIMITED

Merchant Chamber, 41, New Marine Lines, Bombay-20. Phones: 298015, 298062 and 298164. Branch Office: Kasturi Building, Jamshedji Tata Road, Bombay-20. Phones: 296188 and 296189. Stores: 17, Victoria Bunder Road, Colaba, Bombay-5. Phone: 213480.

#### PHOTOGRAPHIC STORES

Portraits for family groups

## MODERN PHOTO STORES STUDIO

358, Lamington Road, BOMBAY 7.

Authorised Dealers of :

KODAK - GEVAERT - ILFORD-SELO & AGFA.

## PICK-UP VANS & SCOOTERS SAH & SANGHI

Dealers for :

Vespa Scooters & Vespa Pick-up vans. Sales & Adm. Office: "Giri Kunj", 11C, Hughes Road, Bombay 7.

Phone : 359461. Grams : "CLOCKWORK".

Branch: Dhiraj Baug, Agra Road, Thana. Phone: 592535. Workshop: Prakash Mills Compound, Off Globe Mill Passage, Worli, Bombay-13. Phones: 374991, 379203.

## PIPES & PIPE FITTINGS

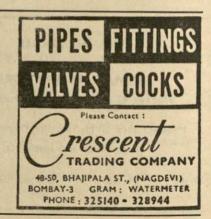
## PANALAL MOHANLAL & CO.

G. I. & M. S. Boiler Pipes, Leader Make G. M. Valves & Boiler Mountings, Brass, Steam and G. I. Fittings. Direct importers of: Copper, Brass, Galvanised Black Pipes & Fittings and Gun Metal Fitting & Valves.

89, Nagdevi Street, Bombay-3 (BR).

Phone: 323071.

PIPES & FITTINGS



#### PIPES & FITTINGS

## HATIMBHOY GOOLAMHUSEIN & , BROS.

(Estd. 1894)

193-A, Nagdevi Street, Bombay-3.

Phone: 326752. Grams: "FITTINGS."

Stockists of all kinds of Pipes, Fittings, Hardware
Material, Valves & Cocks etc.

## PIPES & FITTINGS M. J. PATEL & CO.

Lead in :-

Steam Pipes, Boiler/Stay Tubes, Pressure Pipes & Fittings, etc.

177, Nagdevi Street, Bombay-3.

Phone: 320181 (2 lines).

Grams: "REDTEE", Bombay.

Telex: 011-3358. Reply Back Code: TUBES.

### PIPE & FITTINGS

## KASHIMIRA CERAMIC PRODUCTS PRIVATE LTD.

'KASHIMIRA' Salt Glazed Stoneware Pipes & Fittings.

7, Homji Street, Bombay I.

Phone: 257525.

#### PIPES & FITTINGS

## AHFY TRADING CO.

50, Nagdevi Street, Bombay-3.

Specialists in Cast Iron Pipes & Specials, Water

Meters & Pipe Fittings.

Phone: 329007. Grams: "AHFYTRAD".

## PIPES & FITTINGS MERCHANTS

## NANALAL AMBALAL & CO.

(Estd. 1917)

69, Nagdevi Street, Bombay 3. Phone: 322754. Grams: "VILVALHIRO." One of the leading Wholesalers of Galvanised Iron, Cast Iron & Asbestos Cement Pipes & Fittings and Sanitaryware. Sole Regional Distributors for (1) Parry's Superfine Vitreous Sanitaryware and (2) Stoneware, Pipes Manufactured by the Perfect Pottery Co., Ratlam & Jabalpur.

### PIPES & FITTINGS MERCHANTS

## **ISHARDAS AGARWAL & SONS**

Latif House, Lokhand Jatha, Bombay 9.

For your Industrial and Domestic requirements in M.S. Tubes and Seamless Tubes in all Sizes at reasonable rates from ready stocks.

Phone: 321768.

Grams: "KARCHITE"

#### PIPES & FITTINGS MERCHANTS

## NECET TRADING CORPORATION PRIVATE LTD.

94, Nagdevi Street, Bombay 3.

Grams: "NECETPIPES."

Phone: 323945.

Cast Iron S/S & Double-Flanged Pipes, Specials, Sluice Valves, G.I. Pipes, Fittings and G.M. Valves available in large stock.

## PIPES & FITTINGS MERCHANTS GENERAL TUBES PVT. LTD.

142/44, Nagdevi Street, Bombay-3.

Manufacturers, Stockists & Exporters:

C.I. Pipes & Specials, Water meters, Indigenous and Imported Valves of various types, M.S. G.I. Seamless and Stainless Steel Pipes & Fittings for Water, Air, Gas and Steam.

Our Manufacturing Unit :

Messrs. HAWA INDUSTRIES PRIVATE LIMITED Also undertake Mild Steel & Stainless Steel Fabrication, Slipon & Weld Neck Flanges as per BSS, ASA or as per your Specific requirements.

Phones: 322894 & 328390. Grams: "GENTUBES".

## PLASTIC MFRS.

## IAGDHIR DESAI & CO.

13, Gunbow Street, Fort, Bombay-1.

Phone: 264352

Grams: "ALLNOVEL".

Plastic Dealers and Manufacturers of Plastic Presentation Articles.

PVC Packaging a Speciality.

#### PLASTIC MFRS.

## PODAR PLASTICS PRIVATE LIMITED

Podar Chambers, Fort, Bombay-1.

Phone: 254445.

Grams: 'ELECTRA', Bombay.

Telex: 2108

Manufacturers of SHAKTI household articles, Industrial Components, advertising and display items.

Fabrication, Blowing etc.

Custom Moulding a Speciality.

## PLASTIC MANUFACTURERS

For Advertising Gifts, with an exclusive touch

## PLUCK & CO.

Block No. 22, 3rd Floor, Prabhadevi Industrial Estate, Vir Savarkar Marg (Cadell Road), Post Box No. 9105, Bombay-25.

Phone: 452647.

Grams: "INTERSEAS".

### PLASTIC DECORATIVE LAMINATED SHEETS

## FAKHRUDDIN & CO.

43, Abdul Rehman Street, P.B. No. 3066, Bombay 3. Phones: 325837 and 322725. Grams: "WOODPLY".

Stockists of Okal Board, Plastic Laminated Sheets, Insulating Boards, "Anchor": Novateak Asbestos
Electrical Insulatings for Arc and Heat-resisting
Sheets, Tempered Press Boards, Plywood Block
Boards, Asbestos Cement Sheets, Veneer, Decorative
Teak Plywood, Expanded Metals, Perforated Metal
Sheets, Welded Wire Mesh.

#### PIPES, FITTINGS & SANITARY WARES

## ASGARALI NURUDDIN & CO.

(Estd. 1916)

Stockists of: Pipefittings, Sanitaryware Merchants, Asbestos Pipes & Fittings.

95, Nagdevi Street, Bombay 3.

Phones : { Office : 322609 Resi. 532753

## PLASTIC GOODS MFRS.

## **MUTUAL STEEL INDUSTRIES**

47. Kandivli Industrial Estate. Kandivli (West), Bombay-67 NB.

Phone: 692264-65.

Plastic Moulders in Compression and Injection; Manufacturers of Bakelite and Plastic Radio Cabinets and "TIDY HOME" Plastic Housewares, Toys, Milk bottle crates.

## PLASTIC GOODS, SPORTS GOODS & TOYS

## **EBRAHIM ALLIBHOY & SONS**

(Estd. 1934)

260/64, Abdul Rehman Street, Bombay-3.

Phone: 325163.

Grams : " EALISONS ".

Manufacturers' Representatives.

Manufacturers, Exporters & Wholesellers in: Sports Goods, Toys, Plastic Goods, Novelties etc.

## PLASTIC MACHINERY MERS.

## BRIMCO PLASTIC MACHINERY CORPORATION

Plot No. 55, Govt. Industrial Estate Kandivli (West), Bombay-67.

Phone: 692818. Grams: "BRIMSEAL", Bombay, Kandivli.

Machinery and Equipments for Processing Plastics, Brimco Thermoplastic Extruders and Equipments for Extrusion of Tubular Film (Layflat Tubes), Rods, Strips, Sections, Plastic Cane, Monofilament, and Covering Wires and Cables, etc. from Polyethylene, PVC., Cellulose Acetate, High Density Polyethylene, Polypropylene etc. Also Injection Moulding Machines, Granulators, Palletizing, Colouring, Reprocessing Equipments and Automatic Bag Making Machines, Blow Moulding Machines, Lamination Plant and Plant for manufacturing Oriented Plastic Lace.

Sole Selling Agents for Whole of India. William Jacks & Company (India) Pvt. Ltd.

#### PLASTIC MACHINERY MFRS.

### BOOLANI ENGINEERING CORPN.

Prabhadevi Industrial Estate 402, Veer Savarkar Road, Bombay 25. Phone: 452825.

Machinery for Plastics Industry:— BEC Thermoplastic Extruders and Extrusion equipments for the manufacture of Polythene layflat tubings (bags and sheets), Polythene & P.V.C. Pipes, Wire & Cable coatings, Monofilaments & High Density Cane, Flexible Tubings and Sleevings, Plastic Profiles and Pellets; Scrap Grinders for granulating any type of Plastic scrap; Pelletizers for cutting pellets of any thermoplastic material; Hand-operated Injection Moulding machines for small component mouldings; Hand operated Blow

machines for small component mouldings; Hand operated Blow Moulding machines for blown hollow-wares; Hand-operated Stamping (Embossing) Machines for marking plastic surfaces. Also Extrusion Dies to customer's specifications.

#### PLASTICS MACHINERY MFRS.

### R. H. WINDSOR (INDIA) LIMITED

Plot E-6, U Road, Thana Industrial Estate, Thana.

Manufacturers of:

World famous "WINDSOR" range of machinery for processing Plastics, viz. Injection Moulding Machines, Extruders, and Take-off Equipment, under exclusive licence and in collaboration with GKN WINDSOR LIMITED

Chessington, Surrey, England.

PLASTIC MACHINERY AND MOULDS MANUFACTURERS

DINSHAW, M. H., & CO.

105, Apollo Street, Fort, P.O. Box No. 448, Bombay.

Gram: "AHOORAT"

Phone: 251458

Manufactured with French Collaboration of Messrs. SEFOM PARIS, PVC Automatic Rotary Machines and Moulds of all types.

PLASTIC (RAW MATERIALS)

KAKUBHAI GOVINDJI

384-K, Kalbadevi Road, Bombay 2.

Agents for Bakelite Xylonite Ltd. and Bexford Ltd. of U.K. Also for Kanase Button Mfg. Co. Ltd., Osaka, Japan. Dealers in all types of Plastic materials.

Phones: 312761 & 318223.

Grams : {"PLEXI," Bombay 2.

PLAYING CARDS MFRS.

## THE HINDUSTAN PLAYING CARDS

Central Salsette Road, Kalina, Santa Cruz (East), Bombay 29 (AS).

For Playing Cards to suit all tastes & pockets. Advertisement Playing Cards printed to customers' full satisfaction.

Phone: 534185.

# PLYWOOD MFRS. & DEALERS THE INDIAN PLYWOOD MFG. CO. LTD.

Head Office & Regd. Office:

9, Wallace Street, Post Box No. 1175, Fort, Bombay-1. Phone: 268991 (5 lines). Grams: "INDPLYWOOD"

Manufacturers of:

Decorative Plywood, Veneers, OKAL Veneered Board, Okal Flush Doors, Okal Partition System, Anchor Concrete Shuttering Plywood, Anchor Marine Plywood, Anchorstripe Plywood, Unveneered Particle Board, Veneered Particle Board, etc.

#### PLYWOOD MANUFACTURERS & DEALERS

#### SELECTIVE PLYWOOD

Gupte Mansion, Near Bandra Talkies, Linking Road, Bandra, Bombay 50.

Authorised Dealers of:

Formica Decorative, Dealers in Plywood Black Boards, Hard Boards, Champa, Cement Sheets, Okal Boards. Phone: 533322.

#### PLYWOOD MFRS. & DEALERS

## MAHOMEDALLY VALIJI ARSIWALA

76, Abdul Rehman Street, Opp. State Bank of India, Bombay-3.

Phone: 325900

145, Jamli Maholla (Bapu Khote Street), Bombay-3.

Phone: 332467

Dealers in all kinds of Plywood, Teakwood, Furniture Wood and also Folding Chairs.

#### PLYWOOD MFRS. & DEALERS

#### **FAKHRUDDIN & CO.**

43, Abdul Rehman Street, Post Box No. 3066, Bombay 3. Phones: 325837 and 322725. Grams: "WOODPLY."

Stockists of Okal Board, Plastic Laminated Sheets, Insulating Boards, "Anchor" Novateak Asbestos Electrical Insulatings for Arc and Heat-resisting Sheets, Tempered Press Boards, Plywood Block Boards, Asbestos Cement Sheets, Veneer Decorative Teak Plywood, Expanded Metals, Perforated Metal Sheets, Welded Wire Mesh.

#### PNEUMATIC CONTROL EQUIPMENTS

Airmatic, Pneumatic Cylinders, Air Control Valves, Flow Control Valves, Regulators, Filters & Lubricators (Watts), Pressure Switches & Gauges, Air Volume Controls, Blow Gun.

### KAUSHIK ENGINEERING CO.

99, Apollo Street, Fort, Bombay-1. Phone: 297554.

## PNEUMATIC PROCESS CONTROL ACCESSORIES

### P. RAI & COMPANY

121, Commerce House, 140, Medows Street, P.O. Box No. 139-A, Bombay I.

Phone: 252436. Grams: 'PIRAICO'.

Importers and Suppliers of: Pneumatic Accessories such as Air Line Filter, Regulators, Lubricators, Solenoid Valves, Safety Valves, Control Valves, Pressure Gauges, Rotary Unions, Blow Guns; Also stockists of Air operated instruments, Air Compressors, Diesel Engines, Pumping Sets, Electric Motors, Generators, Machine Tools, Spares for Diesel Engines & Automobiles.

#### POLYTHENE

### **CARBOYS & IERRYCANS AVAILABLE**

Capacity: 2½, 5·10, 20, 30, 44, 50, 80, 100 & 200 Litres
Also Bottles—Capacity from 5 ml to 2,000 ml.
Literature will be sent on request.

#### Manufacturers:

#### GUIARAT POLYTHENE INDUSTRIES

86, Sutar Chawl, Ghia Mansion, Zaveri Bazar, Bombay 2.

Grams: "ALKATHENE" Phones: 325820 & 329321

#### POLYTHENE BAGS MFRS.

#### **NEWPACK INDUSTRIES**

Lotus House, 33-A, New Marine Lines, Bombay 20.

Manufacturers & Exporters:

"NEWPAC" Polythene Bags, Sheets & Rolls, Coloured Re-processed Granules, Tubing, Sheeting etc. Also P.V.C. Rain Coats.

Phones: 291731-376317. Grams: "NUPAC."

POLYTHENE BAGS, SHEETS, ROLLS ETC.

#### POLYFAB PLASTIC INDUSTRIES

Polythene wide film, layflat tubings, bags, sheets, rolls etc.

67, Bhandari Street, Bombay 3 BR.

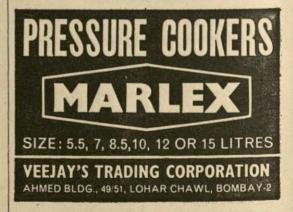
Phone: 324737. Grams: "PROPERPACK".

#### PRECISION TOOLS & INSTRUMENTS

#### MODERN MACHINE TOOLS CO.

88, Nagdevi Cross Lane, Bombay-3. Grams: 'MON-KEYGRIP'. Phone: 322456 — Spring Callipers/Dividers Micrometers, Vernier Callipers, Dial Gauges, Radius, Feeler, Thread Gauges, etc.—Hacksaw Blades, Slitting Saws, Screw Slotting Cutters, Warrior Taps-Dies, Metal Cutting Bandsaws, Drills, Reamers, Carbide Tips, H.S.S. Tool Bits, Lathe Chucks, Magnetic Chucks, Lathe Centres, Tool Holders etc.

#### PRESSURE COOKERS



#### PRESSURE STOVES

## PITAMBARDAS LALLUBHAI & CO.

86. Kansar Chawl, Kalbadevi Road, Bombay-28 BR.

Manufacturers of :

"AGNIRAJ" Stoves, Lanterns, Blow Lamps, Aluminium, Brass, Copper & Stainless Steel Utensils. Hospital Ware & Equipments, Surgical Instruments and appliances and other Engn. Articles.

Grams: "KATORIWALA".
Phones: 334816 & 334408.
Factory: 375381.



#### PRINTING INK MFRS.

## HOOGHLY INK CO. (BOMBAY) LTD.

7, Kumpta Street, Ballard Estate, Bombay 1.

Manufacturers of: Fine Printing Inks of all kinds.

Phone: 261809.

#### PRINTING INK MFRS.

#### COATES OF INDIA LTD.

Manufacturers of: Printing Ink.

Address: Chandivali Farm, Off Saki Vihar Road, Bombay 72.

Phones: 582149 & 582661 (3 lines).

Grams: "INKLINGS".

Calcutta . Bombay . Madras . New Delhi.

#### PRINTING PRESS

#### **ARMY & NAVY PRESS**

Specialists in:

Quality Printing, Designs, Folders, Blocks, Cartons, Multicolour Printing, Punching, Die-stamping, Gold Embossed Labels & Varnishing.

21, Forbes Street, Bombay 1.

Phone: 253202.

#### PRINTING PRESS

#### R.M.D.C. PRESS PVT. LTD.

LETTERPRESS
AND
OFFSET PRINTERS

70-71, Worli Estate, Bombay 18.

Phones: 370606, 370607 & 377239.

PRINTERS OF PERFECT PACKAGING.

#### PRINTING PRESSES

### VAKIL & SONS PRIVATE LTD.

Narandas Building, Sprott Road, 18, Ballard Estate, Bombay 1. Phones: 260321 (5 Lines), Hague Bldg., Sprott Road, Ballard Estate, Bombay 1. Phones: 267598, 261221. Grams: BLADE. Mail Order: Industry Manor, Chowney Gully, Worli, Bombay 25. Phones: 451960, 456608. Grams: RANGOLI. Quality Printers. Manufacturers of: Greeting Cards, Wedding Cards, Gift Wrappers, Children's Party Cards, Decorative Letter papers and Funcards for every occasion.

#### PRINTING PRESSES

#### CLARIDGE G. & CO. LTD..

Letterpress and Offset Printers. Specialists in Packaging, Security Printing & Silk Screen Work, Paper pulp packaging at Mundwa, Poona. Phone: 26702.

Regd. Office & Printing Section: "Caxton House", Frere Road, Bombay-1. Phones: 263201-2-3.

Senior Executive: Brig. J. F. N. Vakil, (I.A.), Retd.

Sales Manager: J. E. Baptista. Works Manager: V. K. Joshi.

#### PRINTING PRESSES

#### BOMBAY ART PRINTERS

for

COMPLETE PACKAGING Under one Roof

OFFSET - LETTERPRESS - BLOCK MAKING

Near Safed Pul, Kurla-Andheri Road, BOMBAY 72 AS.

Phones: 551923-24.

#### PRINTING PRESSES

#### NEW RAIKAMAL PRINTING PRESS

PRINTING DIVISION & OFFICE

313, Byculla Service Industries, Sussex Road, Byculla, Bombay-27 (DD)

Phone: 374302

FLEXIBLE PACKAGING DIVISION
50, Ibrahim Mohamed Merchant Road, Khadak,
Bombay-9 (BR).

#### PRINTING PRESSES

#### AHURA PRINTING PRESS

Specialised in Colour Printing, Publicity Material,
Diaries, Calendars and Packaging.

Lentin Chambers, Dalal Street, Bombay I.

Telephone: 253422

#### PRINTING PRESSES

## THE IDEAL PRINTERS PRIVATE LIMITED

Regd. Office & Works Unit No. I, Bell Building, Sir Phirozshah Mehta Road, Bombay I BR. Phone: 253626. Works Unit No. 2, Asok Press, Zandu Pharmaceutical Compound, Gokhale Road South, Bombay 28. Phone: 454293. Works Unit No. 3, Elar Bldg., Senapati Bapat Marg, Bombay-28. Tel.: 453963.

#### PRINTING PRESS MATERIALS

#### NATIONAL TYPE FOUNDERS

Kothari Mansion, 1st Floor, Opp. G.P.O., P.O. Box No. 1247, Bombay 1.

Grams: "NATIONTYPE"

Phone: 265486.

Type Founders & Dealers in Printing Press Material of all kinds.

#### PRINTING PRESS MATERIALS & MACHINERY

## **GUJARAT TRADING SYNDICATE**

Manufacturers of Printers' Accessories, Suppliers of Materials Handling Equipment.

India House, Fort Street, Bombay-1.

Grams: "GUTRASY".

Phone: 261248.

#### PRINTER'S SUPPLIERS

### **RAJ & COMPANY**

DEALERS IN: Printing Machinery, Inks, Roller Composition, Types, Cornerstone Pattern Quoins, Lightweight Metal Furniture, Hand & Type High Numbering Machines, Paper Cutting Knives, Steel Cutting Rules & complete line of Sundries for Letter Press & Box Making Units. ALSO Sundries for Offset Units:—Rubber Blanket, Damping Hoses, Graphic Films, Zinc Plates, Moleskin, Sponges, Bronze Powder & other Sundries.

AGENTS FOR: "HERCULES" Indian Make Printing & Paper Cutting Machines.

STOCKISTS: "SUPERTYPES", "TYPES THAT TALK"

Cast to last.

40, Cawasji Patel Street, Fort, Bombay I.

Phone: 317512. Grams: "INKOPRINT".

#### PROCESS BLOCK MAKERS



## EXPRESS BLOCK

A name that has been engraved in the minds of advertising and printing men for over 30 years as quality block makers.

## EXPRESS BLOCK & ENGRAVING STUDIOS PRIVATE LIMITED

MUSTAFA BUILDING, SIR PHIROZSHAH MEHTA ROAD, FORT, BOMBAY 1, TELE 252204-05

## PROCESS CONTROL INSTRUMENTS ASHOK SUNIL & CO.



High Pressure Packless SERVO Operated SOLENOID VALVES for AIR - GAS - STEAM LIGHT OIL - WATER FREON ETC.

Sizes 1/8" to 2" & 1/4" 3-way & 4-way
Pneumatically operated Diaphragm type control
VALVES. Also MAGNETIC LEVEL SWITCHES,
Pressure Regulators & Safety Valves.

Address: 403, Arun Chambers, Tardeo, Bombay 34.
Sole Distributors: BLUE STAR LTD.
Band Box House, Prabhadevi, Bombay-25 DD.
Tele.: 457301.

## PROVISION MERCHANTS

#### **REX STORES**

Leading General Merchants for PROVISIONS — COLD STORAGE FOODS TINNED FOODS — PATENT MEDICINES

Free Home Delivery at Standard Market Prices
30, KIRAN NIVAS, PEDDER ROAD, BOMBAY 26

No Branches

Phone: 366911.

#### PROVISION MERCHANTS

#### **GREAT WESTERN STORES**

(Proprietors: F. D. Mehta & Co.)

Wine & Provision Merchants and Cold Storage Specialists.

Standard Building, Dr. Dadabhai Naoroji Road, Fort, Bombay-1.

Phone: 316941.

#### **PUBLICITY ORGANISERS**

#### SELVEL SYNDICATE

All-India Outdoor Publicity Organisers,

Ravindra Mansion Annexe, 194, Dinshaw Vachha Road, Bombay 20.

Branch Offices at: Madras, Bangalore and Hyderabad.

Associated Offices at : Calcutta, Delhi and Jaipur.

#### PUBLISHERS & FINE ART PRINTERS

### SADBHAKTI PRAKASH PRINTING PRESS PRIVATE LTD.

Publishers & Fine Art Printers.

Chairman & Managing Director: Laxmikant S. Dabholkar, J.P. Managerial:

G. Y. Kamat, General Manager.

Head Office: —Devkaran Nanjee Buildings, 22, Horniman Circle, Fort, Bombay.

Press:—12, Homji Street, Fort, Bombay, Phones: 252955 & 311437.

## PUMPS & ELECTRIC MOTORS & SWITCHGEARS MFRS.

JYOTI LIMITED

Pioneer Manufacturers of Vertical Turbine Pumps, Centrifugal Pumps, Chemical Pumps, Electric Motors, Synchronous Generators, Hydro-Electric Generating Units, Starters, Circuit Breakers and Switch-boards.

Regd. Office: Industrial Area, Baroda 3.

Phones: 8352, 8353, 5265. Grams: "JYOTIPUMPS".

Telex: 214.
Bombay Branch: 'Advent', 12A, Foreshore Road,

Opp. Sachivalaya, Bombay I.

Phone: 2130449 Grams: "JYOTIPUMPS".

Other Branches: New Delhi, Calcutta, Madras, Lucknow, Secunderabad, Jaipur, Patna & Bangalore.

## PUMPS & PUMPING MACHINERY WATER SUPPLY SPECIALISTS P. LTD.

Manufacturers of: "WASP" Pumping Sets etc.
Sole Agents for: "MYERS" Pumps.
Head Office: 8, Hamam Street, Fort, Bombay-I.
Telephone: 252325. Tele. Address: "PUMPMEN".

Branches:

2670-74, Ghasmandy Road, Secunderabad (A.P.)
Phone: 73889. Grams: "PUMPMEN".
4E-13, Jhandewalan Extension, New Delhi 55.
Phone: 567916. Grams: "MYERSPUMP".
Gujarat Mansion, Mission Row Extension, Calcutta-I.
Phone: 234144. Grams: "WATERFLOW".
330, Thambu Chetty Street, Madras.
Phone: 23436. Grams: "PUMPMEN".

#### PUMPS & PUMPING SETS MFRS. & DEALERS

#### KIRLOSKAR BROTHERS LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona 2.

Works: Kirloskarvadi (Maharashtra) and Dewas (M.P.).

Manufacturers of: Pumps, Valves, Machine Tools, Hermatic Compressors & Farm Machinery

Offices: Ahmedabad, Bangalore, Bhubaneswar, Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad.

Distributors: In all towns and cities.

#### P. V. C. LEATHER CLOTH

#### R. GANDHI & CO.

Specializing in :—
P.V.C. LEATHER CLOTH & BOOK BINDING CLOTH.

50. Sheriff Devii Street (Chakla), Bombay-3.

Phones : { Office : 322897. Resi : 472102. Grams : "VALIATEX".

Sole Prop. : B. R. Rachh.

#### P.V.C. LEATHER CLOTH MFRS.

## DHARAMPUR LEATHER CLOTH CO. PRIVATE LTD.

10, Chowpatty Sea Face, Bombay 7.

Manufacturers of:—PVC Leather Cloth, Sheetings, Oil Cloth and PVC Coated Hand Gloves, Acid Resisting Polyester Glass Fibre Laminates — Tanks-Pipes & Fittings P.V.C. Toys.

Phone: 359258. Grams: "PUNEM".

#### P.V.C. LEATHER CLOTH MFRS.

## MAMAII INDUSTRIAL CORPORATION

Manufacturers of: "RISING SUN" Brand P.V.C. Leather Cloth 136-38, Ibrahim Rahimtulla Road, Bombay 3.

Phones:

Grams:

332282-331592

"MAMAJISON "

### RADIOS & RADIOGRAMS

### REMEX CORPORATION

7. Tardeo Air-Conditioned Market, Tardeo, Bombay-34.

Authorised Main Dealers for "PHILIPS" Lights & Radios, "COSMIC" & "VVACO" Stereophonic Equipment, Radiograms, "RALLIS" Fans, "ENGLISH/ ELECTRIC" Switchgears.

Also specialists in quick and guaranteed repairs and servicing of Radios, Tapes, etc.

Grams: "CRUCIGRAH".

Phone: 374761

## RADIO MFRS. & DEALERS

### WACO RADIO ELECTRONIC **INDUSTRIES**

Office: Sukhsagar Building, Hughes Road, Bombay 7.
Phones: 352951, 352580. Factory: Ulhasnagar 4,
opp. Vithalwadi, C. Rly. St., Maharashtra State.
Mfrs. of Sanyo Transistor Radios, Waco Radios,
Amplifiers, Intercom equipments, HI-FI-amplifiers,
Ampligrams. Radiograms. Transformers. Chokes Ampligrams, Radiograms, Transformers, Chokes, Balasts for Fluorescent & HPMV Lamps and Wooden Radio Cabinets

## RADIO IMPORTERS, MFRS. & DEALERS

#### THE RADIOCRAFTERS

Radio Sound and Refrigeration Engineers

Laud Mansion, Opp. Charni Road Railway Station, 21, C-D, Queen's Road, Bombay.

Phones: 354406 (Office) & 356003 (Works)

Grams: 'SPOTHIGH'

0

### RADIO PARTS, COMPONENTS MFRS.

## TELECOM INDUSTRIES PVT. LTD.

61, Dr. S. S. Rao Road, Parel, Bombay 12.

Manufacturers of: Wooden Radio Cabinets, Radio Dials, Printed Circuits, Decorative Wood Veneers. Decorative Plywood, Furniture and RF Dielectric & Induction Heating Equipments for Plywood, Furniture & General Engineering Industries.

#### RADIO RECEIVERS & RADIO PARTS SUPPLIERS

#### LAKHANPAL PRIVATE LTD.

Radio Receivers and Radio Parts Suppliers.

29, New Queen's Road, Bombay 4.

Tel. Address: "RADLAKHAN" Phones: 355381/82.

Telex: 0112991.

#### RADIATOR MANUFACTURERS

#### STANDARD RADIATORS PVT. LTD.

Industrial Estate, Baroda 3.

Manufacturers of : Radiators, Radiator Cores and Radiator components for Automobiles, Trucks, Buses, Tractors, Cars, for Stationery Industrial Diesel Engines, Locomotives, Oil Coolers, Air Compressor's Inter Cooler and After Cooler.

#### RAILWAY WAGONS

## K. T. STEEL INDUSTRIES PRIVATE

Manufacturers of: Railway Rolling Stock (Wagons), Iron and Sterl Castings, Mobile Cranes, Electric Overhead Cranes, Passenger & Goods Lifts, Railway and Automobile Springs, Forgings, Pressings. Offices: Broach Street, opp. Victoria Docks (Dana Bunder), P.O. Box 5052, Bombay 9. Phones: 323831 (4 Lines), 362125. Telex 2649.

Regd. Office & Works: Budlapur Road, Ambernath, Maharashtra.
Phones: 11 to 16.

Delhi: 22, Malcha Marg, Chanakyapuri, New Delhi II. Phones: 372213, 278154. Telex: 610.

Calcutta: 11 Floor, 20, Maharishi Debendra Road, Calcutta-7.
Phones: 336426, 5505531. Telex: 7970.

Research, Design & Planning: 9, Altamount Road,
Bombay-26. Phones: 361569, 367108.

#### RECTIFIERS

#### HIND RECTIFIERS LTD.

Licensces of: Westinghouse Brake & Signal Co. Ltd., London for manufacture of Rectifiers, Battery Chargers, Electro Plating Sets, Silicon Power Plants.

Marketing Division:

Mahalaxmi Chambers, 3rd Floor, Bhulabhai Desai Road, Bombay 26. Phones: 359386-87.

Registered Office: Lake Road, Bhandup, Bombay 78.

Phones: 592432 & 592433. Grams: "HIRECT", Bombay 78.

#### REFRACTORIES

## PIONEERS IN REFRACTORIES

#### ALEXANDER & RAYMOND (Bombay)

Manufacturers of: High Temperature Fire Cements, Castable Refractory Concretes, High Heat Duty Ramming Mass, Lining and Maintenance Refractory Materials. Boilers & Steam Pipe Lagging. Bitumen Water Proofing Compound. Also undertake complete refractory lining of all type of Boilers and Furnaces.
Sitaram Building, 'G', Palton Road, Bombay I.
Phones: Office: 262150. Res.: 573040.

#### REPRESENTATIVES, MANUFACTURERS'

## BYRAMJI & CO., T.

Merchants and Manufacturers' Representatives. Central Bank Building, Fort, Bombay.

Phone: 251406. Grams: "SWEETSMILE," Bombay.

Codes: Bentley's A.B.C. and all standard commercial

codes. Partners: T. Byramji and Dhun T. Byramji.

## ROAD & BUILDING PLANT MILLARS INDIA

Victoria House, Victoria Road, Bombay 27 (DD).

Phones: 372103, 372104 & 372105.

Concrete Mixers, Roller Pan Mixers, Asphalt Plant for Hot & Cold Mix, Batching/Mixing Plant, Wellpoint Dewatering Equipment.

#### ROLLING SHUTTERS MANUFACTURERS

#### STAR ROLLING SHUTTERS MEG. CO.

139, Dr. M. G. Mahimtura Marg, S. V. P. Road, Bombay-4.

Manufacturers of:

Rolling Shutters, Collapsible Doors, M. S. Grills, Steel Windows, Compound Gates, etc.

> Factory at : Santa Cruz. Phones: 334315 & 537311.

#### ROPE MERCHANTS

Grams: "RAJKOTWALA". Phone: 322485.

#### ADAMJI KADERBHOY

(Estd. 1894).

337, Katha Bazar, P.O. Box 5046, Bombay 9.

Manufacturers: Stockists of Manila, Sisal, Hemp, Wire and Coir Ropes, Coir Mattings, Jute Ropes and Products, Flax, Twines, Cordages, Flax Canvas and Tarpaulins, Chains, Chain Slings and all kinds of lifting Tackle and Shipchandlery Stores. Exporters and Importers.

Selling Agents:

The Ganges Rope Co. Ltd., Calcutta.

#### **ROPES & TWINES**

### M. M. A. RASIWALLA & CO.

(Estd. 1910).

17, Janjikar Street, Husseinbhai Building, Mandvi, Bombay 3.

Grams: "TWIST". Phone: 324111. Proprietors of : Maharashtra Rope Factory, Pipe Road, Kurla, Bombay 70. Phone : 551312.

Manufacturers of: Cotton Ropes, Thread, Twine and all sorts of Fishing Lines.

Dealers in: Fish-Hooks, Hemptwine, Plastic Fishing Line Twines, Sail needles, etc.

Principal Stockists for Maharashtra State : Garware "Garfil" Ropes & Twines.

#### ROPERIES

## GARWARE FILAMENT CORPORATION PVT. LTD.

Chowpatty Chambers, Sandhurst Bridge, Bombay 7.

Phone: 357711-5.

Manufacturers of:

Garfil Synthetic Monofilaments, Ropes, Twine, Fabrics, Tapes and Nettings.

#### ROPERIES

## THANAWALA, B., & SONS PVT.

Manufacturers of: "National" Cotton Driving Ropes & Spindle Tapes, etc.

47, Tamarind Lane, Fort.

Phones: 318611

Grams:

Factory: 591440. "ENGINEROPE."



#### ROPERIES

### **OCHHAVLAL** CHHOTALAL & CO.

207-209, Nagdevi Street, Bombay-3.

Stockists of Manila, Sisal Ropes, Spun Yarn & Synthetic Ropes etc, Manufacturers of: Rope Ladders, Slings & Nets, Cotton & Jute Ropes, Tubular Bandings, Twines, Strings, Line Dori, Jute & Hemp Healed Cord, Webbings, Tapes, Cotton Newars & "Jute Newars". Phones: Office: 324944; Res.: 359614. Grams: "KACHERIA".

#### ROPERIES & SHIPCHANDLERS

## ADAMII KADERBHOY

Post Box No. 5046, 337, Katha Bazar, Bombay 9.

Tel. No. 322485.

Grams: "RAJKOTWALA"

Manufacturers and Stockists of Cordage, Manila Coir, Hemp & Cotton Ropes. Approved Contractors to Govt., Rlys. and Steamship Companies. Exporters of Coir Products. Selling Agents for: The Ganges Rope Co., Ltd., Calcutta.

#### ROSIN AND TURPENTINE

#### **BOMBAY ROSIN & TURPENTINE CO.**

G.P.O. Box 1512, Bombay 1.

Phone: 379268.

Grams: "TURPENTINE".

Manufacturers, Agents, Suppliers & Exporters of Rosin, Oils, Varnishes, Shellac, Glues, Disinfectants and all Chemicals to Mills & Factories. Agents & Distributors: Haward Rosin Chemicals, Nepal; National Rosin & Turpentine Factory, Punjab. Local Sales Office: Meghji Building Compound, Near Wallace Flour Mill, Mazagaon Road, Bombay 9.

#### RUBBER GOODS

### ENKAY (INDIA) RUBBER CO.

156-D, Kamla Nagar, Delhi-7.

Manufacturers of: All kinds of Moulded Rubber Goods — Sports, Surgical, Car Suspension Bushing Kits, Cycle Tubes, Shoe Soling Materials and Printing Rollers.

> Regd. T. M. "CORONATION". Delhi Office: 228298, 229298. Gurgaon Factory: 452.

#### RUBBER GOODS MFRS.

### HINDUSTAN RUBBER WORKS

402, Veer Savarkar Marg, Prabhadevi, Bombay-25.

Manufacturers of Rubber Ebonite Rollers, Rubberlining of Tanks & Industrial Articles of Rubber Ebonite.

Phone: 451965.

#### RUBBER GOODS MFRS.

#### RUBY RUBBER WORKS (Bangalore) LTD.

Manufacturers of all kinds of Rubber Goods.

Office: 87/1, Richmond Road, Bangalore-25.

Factory: 6th mile Bannerghatta Road, Dharmaran College P.O., Bangalore-29.

Phone : { Office : 52729 | Factory : 71100

Grams: "RUBYTREADS"

#### RUBBER GOODS MFRS.

#### CARONA SAHU CO. LTD.

Manufacturers of: Canvas, Rubber Shoes, Chappals, Leather Shoes with moulded rubber soles, Chappals with microcellular soles & Children's Leather Sandals with rubber soles.

> Office: 221, Dr. Dadabhoy Naoroji Road, Fort, Bombay-1.

Grams: "CARONASAHU"

Telephone: 267821 (10 lines).

#### RUBBER GOODS MFRS.

#### KORULA RUBBER CO. PVT. LTD.

249-B, Worli, Bombay-18.

Manufacturers of:

Automobile Parts, Mouldings, Extrusions, Refrigerator Gaskets, Radiator Hoses, Rubber Lined Tanks & Pipes, Insulation Rubber Mattings, Pharmaceutical Rubber goods, Industrial Rubber Products

Phones: 45-2214/15.

Telex: 011-2461.

Grams: "KORULARUB",

Bombay.

#### RUBBER GOODS MFRS.

Grams: "RUBERGOODS," Bombay, Mandvi.
Phone: 326551.

## PREMIER RUBBER & CABLE INDUSTRIES

Jamal Building, 211, Nagdevi Street, Bombay 3.

Manufacturers of: Quality Rubber Goods such as 'PREMIER' Cycle and Rickshaw Tyres and 'PREMEX' Tubes, Rubber Hose Pipes (Delivery and Suction), Petrol and Oil resisting Hose Pipes, Rubberised Texture Cloth, Rubber Beltings, Moulded and Extruded Articles.

#### RUBBER PRODUCTS MFRS.

#### INDIA RUBBER PRODUCTS

Kasturchand Mills Estate, Dadar, Bombay 28.

Phone: 454072

Manufacturers of Industrial Moulded Rubber Products to Drawing and Specifications, for Textile Rayon, Chemical, Pharmaceutical & Engineering Industries, for original and replacement requirements in Natural & Synthetic Rubbers, and in Ebonite.

## RUBBER GOODS MFRS. & DEALERS

Phone: 326840.

Grams : "YOUTH ".

## MERCHANT BROTHERS

151, Nagdevi Street, BOMBAY 3.

Authorised dealers of : DUNLOP & GOODYEAR

Rubber Hose, Beltings, V-Belts, Trolley Wheels, Fire-fighting Equipment, Rubber Sheets, Insertions, Rubber Gloves, Gum-Boots, Plastic Pipes & Fittings, Oil Resistant Neoprene Sheet & Other Moulded Parts, etc.

TRADE INQUIRIES INVITED

#### RUBBER PRODUCTS MFRS.

#### RUBBER PRODUCTS PVT. LTD.

Manufacturers of: Moulded & Extruded Rubber Components from Natural and Synthetic Rubber for Automobile, Sugar, Rayon, Pharmaceuticals and other Industries; Solid Tyres, Hose Pipes, Suction and Delivery and special hoses to Party's Specification. Address: Chincholi Naka, Swami Vivekanand Road, Malad, Bombay 64.

Phone: 692538

and

C-44, Road No. 28, Wagle Industrial Estate, Thana (Mah.). Phone: 592900.

#### SAFETYWEAR FOR INDUSTRIAL WORKERS

#### PRADEEP PACKAGERS

472, Sardar Patel Road, Bombay-4.

"PRADEEP" Safety Appliances provide Neat Look, complete Protection & benefits of Standard specifications. Products Manufactured: Safety Goggles, Fresh Air Breathing Apparatus, Respirators, Aprons, etc.

Phone: 351115.

#### SANITARY ENGINEERS & SANITARY GOODS MFRS. & DEALERS

### MAHABIR PERSHAD & SONS

Chawri Bazar, Delhi 6.

For all Sanitary Goods, C. P. Bathroom Fittings, A.C., S.W., G.I., C.I., R.W. Pipes & Fittings, Auto Water Heaters, A.C. Pipes & Corrugated Sheets, A.C.C. Refractory Materials.

Phones: 264854, 262735, 265307.

#### SANITARYWARE

PARSHURAM

Vitreous-Hygienic Super-White Also in pleasing

Pastel Colours, Complete Range in Sanitaryware, Wash Basins, Closets — Indian and European Style, Stall Urinals & Sinks for Laboratory & Kitchens, bidet etc.

## THE PARSHURAM POTTERY WORKS CO. LTD.

Morvi, Gujarat (India). People Prefer Parshuram. Grams: "POTTERY".

#### SANITARYWARES & FITTINGS

## THE MYSORE STONEWARE PIPES & POTTERIES LTD.

(Estd. 1937).

Regd. Office:

80, Sixth Cross Road, Gandhinagar, Bangalore 9.

Phone: 22368. Grams: "MYSTONPIPE".

Manufacturers of Sanitary Sewer Pipes, Fittings, Firebricks and other sanitary articles, Salt Glazed Acid resisting Tiles & Chemical Stoneware.

#### SANITARYWARES, PIPES & FITTINGS

### NANALAL AMBALAL & CO.

(Estd. 1917)

69. Nagdevi Street, Bombay 3.

Phone: 322754. Grams: "VILVALHIRO."

Sole Regional Distributors for: (1) Parry's Superfine Vitreous Sanitaryware, (2) Stoneware Glazed Pipes.

Manufactured by: Perfect Pottery Co. Ltd., Ratlam &
Jabalpur. Also one of the leading Wholesales of all
kinds of Pipes, Fittings & Cocks, etc.

#### SANITARYWARES, PIPE FITTINGS

#### GIGABHAI K. & SONS PVT. LTD.

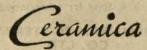
8-10, Green Street, Fort, P.O. Box No. 1180, Bombay I.

Phone: 258173. Grams: "TILESTONE".

Agent for "BESTOLITE" Toilet Seats, "BLUE BIRD " C. I. Bath Tub, and "NEYCER KERAMAG" Sanitarywares. Distributor for "E.C.L." Glazed Tiles, and "LIBERTY" Cement Mosaic Tiles.

#### SANITARYWARES & TILES MERCHANTS

Authorised Stockists of: PARRY'S Superfine Vitreous China Sanitaryware 'COMMANDER' Toilet Seats VITRUM Venetian Tiles
JOHNSON'S Glazed Tiles EGO ' Bathroom Fittings



98, Medows Street, Bombay-1.

Phone: 257384

Grams: VITREOUS.

#### SCIENTIFIC & LABORATORY EQUIPMENTS

#### THE NEW SURGICAL TRADING CO.

Bulakidas Bldg., Mangaldas Road, Princess Street. P.O. Box 2321, Bombay 2.

Dealers in: Surgical, Scientific and Laboratory Equipments, Hospital Steel Furniture and Sundries, Specialised in : Soil and Cement Testing Equipments ; Agents for Instruments & Chemical Private Ltd. Manufacturers of: Equipments for Higher Research in Physiology & Pharmacology.

Phone: 314138.

Grams : 'COWORKER'

#### SCIENTIFIC & LABORATORY INSTRUMENTS

### ANDHRA SCIENTIFIC CO., LTD.

Janmabhoomi Chambers, Fort Street, Bombay I.

Manufacturers of Scientific, Laboratory & Surveying Instruments.

Regd. Office & Works: Masulipatnam (Andhra Pradesh).

Phone: 261540

Grams: "ASINSTS".

#### SCIENTIFIC & LABORATORY EOUIPMENTS

#### BIOTECH LABORATORIES

(Micrology Division)

Manufacturers Exporters of Biological Slides & Materials.

759/89, Bhandarkar Institute Road, P.Y.C., Poona-4.

Phone: 57997. Grams: 'MICROTECH'.

### SCIENTIFIC & LABORATORY INSTRUMENTS ASSOCIATED INSTRUMENT MANU-FACTURERS (INDIA) PRIVATE LTD.

Scientific Instrument Manufacturers & Manufacturers, Representatives.

Manufacturers of: Laboratory Apparatus and Soil, Cement and Fuel Testing Equipment.

Dealers in : Scientific, Optical, Electrical, Communication and other Types of Instruments.

Bombay Office: India House, Fort Street, Bombay I. P.O. Box No. 119.

Grams: "AIMILBOM"

Phones: 261658, 266827 Telex: 011-2931 Head Office: Calcutta. Branch: New Delhi.

#### SCIENTIFIC & LABORATORY INSTRUMENTS

#### CENTRAL SCIENTIFIC SYNDICATE

475, Jagannath Shankar Seth Road. (Chira Bazar), Bombay 2.

Grams: "MAXSERVE"

Phone: 316867.

Dealers in Scientific and Laboratory Requirements. Suppliers of Chemistry, Physics and Biology Instruments.

## SCOOTERS & SCOOTER PARTS THE GLOBE STORES CO.

Sitaram Bldg., Dadabhoy Naoroji Road, Bombay.

Sole Agents for:

'GLOBE' Brand side cars for Motor-cycles & Scooters. 'ULMA' Accessories for Lambretta & Vespa Scooters. 'Globe' Brand Accessories for Motor-cycles & Scooters. Stockists of Imported & Indian spare parts for Lambretta & Vespa Scooters.

Phone: 262502.

## SEMICONDUCTORS

#### SEMICONDUCTORS LTD.

Associated with Raytheon Co., Lexington, Mass., U.S.A.

Manufacturers of:

SEM Transistors, Diodes, Varistors, Thermistors, Ferrite Rods and Semtronic Line of Instruments.

Regd. Office:

Radia House, Rampart Row, Fort, Bombay I.

Plant No. 1:

Ahmednagar Road, Mile 4/5, Poona 14.

SEWING MACHINE DEALERS

# SEWING MACHINES

for Jute & Polythelene H.D.P.E. Woven Sacks Bag Stitching & Filled Bag Closing.

Overlocks-Zig-Zag-Chain-stitching, Cutting Machines, Button Hole, Button Stitching & Sewing Machines for all other purposes & all spare parts.

SOLD & SERVICED BY

ANSON, 605, Girgaum Road, Bombay 2.

#### SEWING MACHINES & SPARES



Pioneers in quality goods for sewing machines of any make. Also specialists in repairs.

## JAYANTILAL KESHAVLAL & BROS.

(Estd. 1920)

(Prop.: Imperial Sewing Machine Mfrs. Co.) Lehri Bldg., 282, S.V.P. Road, Bombay 4. OF EDUCATION 351388. Grams: "GORDIA"

SEWING THREADS MFRS. & MERCHANTS

### ISHWARDAS & CO

2, Sutar Chawl, Bombay 2.

Phone: 323641.

Sole Agents : Raghuvan hi Mills Ltd., Bonnay Thread Mills, Modinagar, R. for Serving, Emboidery & Glazed Threads.

Manufacturers, Exporters & Dealers in all sorts of THREADS.

#### SHIP BUILDERS

#### AFCO LTD.

(A wholly owned Subsidiary of the Bombay Burmah Trading Corporation Ltd.).

Marine Consultants and Manufacturers of Life Saving Apparatus and Fibreglass Boats, Agents/Distributors for ASL, British Anzani, Mercury and Perkins Outboard Motors and Perkins and Fodens Marine Diesel Engines and Spares. Office at 9, Wallace Street, Fort, Bombay I (BR).

Phone: 260166. Grams: "FEDACRETE", Bombay.

### SHIP BUILDERS MAZAGON DOCK LTD.

Dockyard Road, Bombay-10 DD. Phone: 379511-15, 372566-69. Cable: "MAZDOCK ". Telex: 2568.

Craft up to 140 m in length like destroyers and frigates, passenger vessels, cargo ships, dredgers, tugs, barges, trawlers, launches, floating cranes, floating docks, special purpose pontoons, assault boats, etc. Collaboration with I.H.C., Holland, for building dredgers. Repairs to all types of ships and marine inflatable liferafts. General engineering work like ferrous and non-ferrous castings steel forgings, marine electrical installation, pressure vessels, etc. Collaboration with Kampnagel (Subsidiary of DEMAG) of West Germany for manufacture of port, dock, ship building and floating cranes, Subsidiary: Goa Shipyard Ltd., Vasco-da-Gama, Goa.

Telegram: "GOAYARD",

Phones: OFFICE: Vasco 59; Yard Vasco 127 (24 hours).

#### SHIPCHANDLERS

## ABDULHUSEIN PEERBHAI & SONS SHIPCHANDLERS

Stockists of: MARINE STORES, CHAINS, WIRE ROPES, CHAIN PULLEY BLOCK, CRAB WINCHES, ANCHORS, BINNACLE COMPASS ETC.

Address: 66-68A, Peerbhai Building, Bhandari Street, Bombay 3.

Phone: 323956.

Grams: "STUDCHAIN".

#### SHIPCHANDLERS

## AMRATLAL CHHAGANLAL & CO.

143, Nagdevi Street, Bombay 3.

Stockists of: Wire Ropes, Chain Pulley Blocks, Wire Rope Fittings, Hoses (Rubber & Canvas)—Suction-Delivery & Fire etc.

Phone: 326008.

Grams: "EKADASHI".

#### SHIPCHANDLERS

## ESOOFALI ESMAILJI KARACHIWALLA & CO.

43-45, Bhandari Street, Mandvi, Bombay 3.

Phones: 321617 & 329167. Workshop Phone: 551473.

Shipchandlers and Stockists of: Wire Ropes, Manila Ropes, Hardware, Ship Chains, Pulley Blocks, Shackles, Thimbles, Rope Clamps Straining Screws, Hooks, Chainslings, Wire Rope Slings, Wire Rope Nets, Chain Pulley Blocks, Pulley Blocks Chain—Coal Tar, Coal Pitch Felts, Marine, Glue, etc. Dealers in: Marine, Mill & Factory Stores.

## SHIPCHANDLERS HEPTOOLA NOORUDIN & CO.

154, Nagdevi Street, Bombay 3.

Grams:

Estd. 1900

Phone : 326787

"IMMUNITY"

Importers & Dealers in :

## MARINE, MILL & INDUSTRIAL STORES

Stockists of: Steel Wire Ropes, Wire Rope Fittings, Chains, Screw Jacks, Crab Winches, Pulley Blocks, Chain Pulley Blocks & Rubber Goods.

> Manufacturers of : WIRE ROPE SLINGS & NETS

#### SHIPPING AGENTS

### AGENCIA GERAL PVT. LTD.

P. O. Box 15 Vasco Da Gama

Agents for: B.I.S.N. Co. Ltd.—P. & O. Lines—Isthmian Lines Inc.

DAMODAR BULK CARRIERS LTD. ANCHOR LINE OF GLASGOW

Havraise of Paris Hinode of Japan
United Liners (Scandinavian Joint Services)
Phones: Office: 348, Res.: 341.
Grams: "GENAGENCY".

#### SHIPCHANDLERS

### HIRALAL MAGANLAL & CO.

(C. K. Patel & Sons) (Patel Engineering Works)

Ship-repairers, Shipchandlers, Dubashes, Chipping, Painting, Tank Cleaning and Lighterage Contractors,

263, Janjikar Street, Jumma Masjid, Bombay-2.

Telegram: "WALNUT".

Phones: Office: 320261 & 320262. Workshop: 378896.

#### SHIPCHANDLERS

## WESTERN INDIA MARINE MILLS & ENGINEERS

Stockists of :

Marine Stores, Chains, Wire Ropes, Chain Pulley Blocks, Crab Winches, Anchors, Pull Lifts, Pulling & Lifting Machines, Rope & Wire Rope Pulley Blocks, Shackles, Thimbuls, Bulldog Grips. All types of accessories, hoses, etc.

185, Janjikar Street, Bombay-3.

Phone: 327728. G

Grams: "WIRECHAINS".

## SHIPCHANDLERS, GOVT. & RAILWAY CONTRACTORS

## AMIRUDIN SHALEBHOY TYEBJEE & SONS

Shale Building, 2nd Floor, Bank Street, Fort, Bombay I.

Phones: 257982, 258633. Grams: "PILOTACE."

#### SHIPPING AGENTS

## CORPORATION

(Incorporated in the Philippines with limited liability) Shipowners, Brokers, Operators and Agents. Fort House Annexe, 221, Dr. Dadabhoy Naoroji Road (Post Box 523), Bombay I. Telephone: 264081 Telegraphic Address: "STARLINER" and "EVORIENT," Bombay. Telex No. 2554. Agents for American Mail Line, Everett Orient Line, Johnson Line, Keystone Shipping Co., Ogden Marine Inc., Waterman Steamship Corporation, Humble Oil & Refining Co., American Bulk Carriers, Inc., and Marasia, S.A.

#### SHIPPING AGENTS

### FINLAY, JAMES, & CO., LIMITED

Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box No. 73, Bombay I. Phone No. 258355.

#### Agents:

Corporation of Lloyd's and Salvage Association, London and for over one hundred British, Continental, American and Japanese Insurance Companies, Steamer Agents. Representing: The Central Provinces, Manganese Ore Co. Limited, Manganese Ore (India) Limited and Finnish Paper Mills' Association, Lloyds Sub-Agents — Goa.

#### SHIPPING AGENTS

in Goa

#### HIRALAL & COMPANY

(N. H. Thakker, S. R. Thakker, J. H. Thakker).
'Thakker House',

Vasco Da Gama, Goa.

Serving Shipowners, Attending Clearing, Forwarding, Shipping work for over 30 years at Marmagoa Harbour.

Phones: 323, 453. Res.: 374 & 424. Telex No. 204. Grams: "THAKKER".

## SHIPPING AGENTS LIONEL EDWARDS LIMITED

Freight & Steamship Agents

Agents: American Export Isbrandtsen Lines Inc., New York, Pacific Far East Line Inc., San Francisco.

Bombay Address: 41, Nicol Road, Ballard Estate, Bombay I (BR). Phone: 260331/5

Head Office: 21, Old Court House Street, Calcutta,

Phone: 231171.

Codes Used: Bentley's 1st & 2nd Edition, New Bol Code.

Telegraphic Address: "LIONWARDS" all Offices.

#### SHIPPING AGENTS

#### NAROTAM & PEREIRA LTD.

Shipping & Insurance Agents, Dubashes, Colombo and Galle.

Registered Office: Scindia House, Narottam Morarji Marg, Ballard Estate, Bombay I.

Grams: "JALATHARG."

Phone: 262461.

Directors: Smt. Sumati Morarjee (Chairman), S. C. Sheth, F. X. A. Pereira, R. P. Vevaina, J. C. Nanavati, V. C. Mashruwalla and S. C. Banker.

#### SHIPPING AGENTS

#### NAV BHARAT CORPORATION

Agents: Licensed Custom House.

Agents: Clearing, Forwarding, Shipping & Ware-

housing.

15, Bombay Mutual Annexe, Gunbow Street, Bombay I.

Phones: General: 267121/2.

Partners: 263120.

Import/Export: 265389.

Accounts : 263794.

## SHIPPING, CLEARING & FORWARDING AGENTS

## ABRAHAM, D. & SONS PRIVATE LTD.

Shipping, Clearing, Forwarding and Commission Agents, Hague Building, Sprott Road, Ballard Estate.

Tele. Address: "HELAL."

Office: 26-1837, 26-1838, 26-2379 & 263713.

Phones : Godown : 377741 & 374097. Residence : 25-0427 & 292958.

SHIPPING & TRAVEL AGENTS

# COX & KINGS

(AGENTS), LIMITED (Incorporated in England)

Lloyds Bank Building, Dr. Dadabhoy Naoroji Road, (Hornby Road), BOMBAY I.

THE SHIPPING & TRAVEL PEOPLE

Grams: "COXSHIP." Telex: 2865. Phone: 263065

#### SILK & ART SILK MILLS SHIV SILK MILLS

Office: 91 Shalimar, 'G' Road, Marine Drive, Bombay-2.

Mills: S. V. Road, Dahisar, Bombay-68.



Associates of :

Messrs. Rajmal Paharchand (AARPEE) (See "Export, Import Section"), Bombay.

## SILK & ART SILK MILLS THE AMBIKA SILK MILLS CO. LTD.

Manufacturers and Processors of Rayon and Synthetic/ Polyester Fabrics. Specialised in TERIKA & KAYTRON & Polyester Shirtings.

11-12, Haines Road, Mahalaxmi, Bombay 13.

Managing Director: Krishnakumar Maganlal Mehta.

General Manager: B. W. Mehta.

Secretary: J. B. Joshi.

Factory Manager: M. V. Karve. Weaving Master: R. G. Ponkshe. Office on Mill Premises.

Phones: Office: 375991 & 373652.

Grams: "QUALITYFAB".

#### SILK & ART SILK MILLS

## THE ADITYA TEXTILE INDUSTRIES PRIVATE LTD.

Prop.: Bharat Vijay Velvet & Silk Mills

Manufacturers of:

Velvet, Plush and Nylon Fabrics.
and Processors of Man made Fabrics.

Mills: Kurla-Andheri Road, Bombay 72 AS.

Regd. Sales Office: "Gazdar House", Gr. Floor,
Girgaum Road, Bombay 2.

Managing Director: S. M. Parekh. Directors: R. R. Doshi, P. S. Parekh.

#### SIZING MATERIALS

## ASSOCIATED ENTERPRISES

Manufacturers of the most popular sizing materials for Rayon & Synthetic yarns. 12A, Mahendra Industrial Estate, Behind Sion Fort, Sion (East), Bombay 22.

Phones: 475793, 475188, 555661.

#### SLOTTED ANGLES & ACCESSORIES MFRS.



nothing TRIGON cannot make

## TRIGON METAL SECTIONS

4/15, Industrial Estate Gorwa Road, Baroda 3

Manufacturers of: Quality Slotted Angles & Accessories Hollow Metal Door & Window Frames, Concrete Shuttering Steel Plates & TOPLANK-TRIGON open Steel Plank.

#### SLOTTED ANGLES

#### VINAR LIMITED

VINAR Slotted Angles & Accessories — Ideal for Storage Racks, Ladders, Mezzanines, Trolleys, Sheds, Conveyors, etc. etc. Enquiries be addressed to Vinar Limited. (Engg. Div.)

59, Apollo Street, Fort, Bombay-1.

Phones: 255748-49

#### SOAPS & COSMETICS

### DEVARSONS PRIVATE LTD.

Manufacturers of:

Eosine, Uranine, Cosmetic, Food, Oil, Soap, Direct & Acid Colours.

Factory: N/11, Municipal Industrial Estate, Bapunagar, Ahmedabad-21.

Phones: { 51271 (Office). 53628 (Factory)

Grams: "DEVARSONS".

#### SOLDER WIRES



## KHOSLA ENGINEERING PVT. LTD.

POONA-3

Manufacturers of:

Solid and Flux Cored Solder Wires of Single and Multicores as well as Solder Sticks for Normal Soldering and for Aluminium Soldering.

Phones: { Office: 54677 Factory: 8527

Grams: "KHOSLA" Kirkee

#### **SOLICITORS & NOTARIES**

#### PAYNE & CO.

Solicitors and Notaries, Esplanade House, Waudby Road, Fort. Telephone Nos. 26-2284 and 26-2285.

Telegraphic Address:-- "PAYNES," Bombay.

K. K. Lala, B.A., LL.B.; C. R. Jussawalla, M.A., LL.B.; Mrs. Z. N. Gamadia, B.A. LL.B.; E. J. Balsara, LL.B.; K. D. Mehta, B.A. (Hons.), LL.B.; Solicitor & Advocate Assistants: N. A. Vesuvala, B.A., LL.B.; F. K. Vakil, LL.B.

#### SOLVENT EXTRACTION PLANT MFRS.

## DE SMET (INDIA) PVT. LTD.

Manufacturers of :-

Solvent Extraction Plants, Vegetable Oil Refining Plants, Cotton Seed Processing Equipments, Cattle Feed Plants, Vanaspati Plants, etc.

Address: —Khanna Construction House, 44, Maulana Abdul Gaffar Road, Worli, Bombay 18 W B.

Grams: "EXTRAXMET".

Phone: 372231-2-3.

#### SPORTS GOODS

## SYMOND DISTRIBUTORS PVT. LTD.

Sole Distributors in India for the "SLAZENGER"
Sports Goods, made in India.

Eruchshah Bldg., 249, Dr. Dadabhoy Naoroji Road, Bombay I.

15, Elgin Road, Allahabad and 18, Netaji Subhas Road, Calcutta 1.

Senior Manager: V. V. Chhaya.

Phones Office: 263915 Grams: "TENNISBALLS".

## SOUND & PROJECTION EQUIPMENTS PHOTOPHONE EQUIPMENTS LTD.

Regd. Office & Factory:
7, Saki Vihar Road, Bombay 72 (AS); Phone: 582493.
Sales Office:

Sandhurst Bridge, 532, Sardar Vallabhbhai Patel Road, Bombay 7 (WB). Phone: 359541. Telex: 2471 PHOTO-PHONE Bombay.

Branch Offices:
4850, Ansari Road, 24, Daryaganj, Delhi-6; Phone:
274043. Telex: 342 PHOTOPHONE Delhi; Sagar
Talkies Bldg., Kempegowda Road, Bangalore 9. Grams:
"PHOTOPHONE", Bangalore; Mfrs. & Exporters of
RCA PHOTOPHONE 16 mm and 35/70 mm Sound

& Projection Equipments.

Managing Director: M. A. Fazalbhoy.

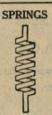
#### SPRINGS

COMPRESSION, EXTENSION, TORSION-FLAT
CONICAL, DOUBLE CONICAL—SPECIAL SHAPE—
BARREL SHAPE—WIRE FORMS—STRIP FORMS
CLIPS—RINGS—CIRCLIPS—DOWEL PINS ETC:
Manufactured to your specifications on latest automatic
Machines.

#### COSMOS INDUSTRIES

Phone: Office: 311605 Factory: 693772. 26, Old Hanuman 1st Cross Lane, Kalbadevi Road, Bombay 2.

Sainath Industrial Estate, Block-2, off Aarey Road, Goregaon (East), Bombay-63.





### **SPRINGS & FORMS**

## IMANES

BOMBAY-56 (AS). P.O.B. 8002. Tel. 571634. Gram: 'IMANESCOL'.

#### SPRING MANUFACTURERS

SPRINGS For All Use

Contact :

#### MILAN SPRING WORKS

MANUFACTURERS OF AUTOMOBILE, TEX-TILE, PRECISION SPRI-NGS. ALSO SPRINGS FOR USE IN ALL INDUSTRIES



43, Khandia Street (Near Two Tanks), BOMBAY 8.
Telephones: 376900 & 379159 (Office).
Grams: "COILSPERING", Bombay.

#### STAINLESS STEEL

#### PLATES, SHEETS & ROUNDS

of 304 and 316 quality

We can supply ex-stock

## SURESH & COMPANY

501, Loha Bhavan, Frere Road, Bombay-9

Tel.: 328548

## STAINLESS STEEL UTENSILS MFRS. & DEALERS

## DEVIDAYAL STAINLESS STEEL INDUSTRIES PRIVATE LTD.

Gupta Mills Estate, Reay Road, Bombay 10.

Local Sales Office:

39, 2nd Bhoiwada, Bombay 2.

Phone No. 370518-19. Grams: "DEVISTEEL."
Manufacturers of a wide range of Kitchen Utensils,
Tableware, Electric Kettles, Pocket-Tiffin Carrier,
Fabricated Steel Tanks for Food & Chemical Industries,
Wash Basins and Hospital Equipments and Railway
Fittings.

#### STAMPS & STAMP ALBUMS

## JAL COOPER, F.R.G.S.

Dealer in: Indian & States' Stamps, Philatelic
Auctioneer & Valuer.

Editor & Publisher: "India's Stamp Journal."

Address: Standard Building, Dr. D. Naoroji Road,
Bombay I.

Phone: 252117.

#### STATIONERY MFRS.

### **EVERGREEN SYNDICATE**

Stationers & Printers, Importers & Stockists of all kinds of Office Stationery; Chief Stockists of Cellulose Self-Adhesive Tape, Brown Kraft Gummed Tape, Teleprinter Rolls and Drawing Materials.

19/21, Hamam Street, Bombay Mutual Chambers, Fort, Bombay-1.

Phone: 252641. Grams: "TAPEKING".

#### STATIONERY MFRS. & DEALERS

#### **BOMBAY STATIONERY MART**

Proprietors:
GULAMHUSEIN AHMEDALLY & CO.
7A, Sir Phirozshah Mehta Road, Fort, Bombay-I.

Phone: 253897 (2 lines). Tel. Address: "PAPERWALA"

Estd. 1873.

Largest Stockists of:
Paper, Stationery, Artist, Drawing, Engineering and
Surveying Materials and Gift Novelties.

No Branch

#### STATIONERY MFRS. & DEALERS

### THE RELIABLE STATIONERY MART

Stationers & Printers
Account Book Manufacturers and
general order suppliers.

23D, Sir Phirozeshah Mehta Road, Fort, Bombay I.

Phone: 258070.

## STATIONERY MFRS. & DEALERS JAGJIVANDAS NANDLAL & CO.

237, Abdul Rehman Street, Bombay 3. Phone: 323634

Wholesale Stationers, Importers of Artist Materials, Sole Distributors for Electric Pen-Pencil, Typewriting Carbon Papers and Sole Selling Agents for Electric Staples Pins in sizes of 24/6, 26/6 and B/8 and Orienta Staple Pins in size of 24/6, No. Sy10, 23/8, 23/10, 23/12, 23/15, 23/17 and 66 5/16, 7/16 and 9/16. Stockists of ORIENTA Plate Daters and all kinds of Office and School Stationery Materials.

## STEAMSHIP AGENTS J. M. BAXI & CO.

Steamship Agents & Stevedores 16, Bank Street, Bombay-I

Phones: 253871 & 258381. Grams: "BAXICO"

Branches at all ports on the East and West Coast of India.

Telex: 011-2549 NJ TOURS BY, 011-3439 BAXI BY.

## STEAMSHIP COMPANIES DEMPO STEAMSHIPS LIMITED

Bulk Cargo Carrier Operators and Charterers.

Address: Moti Mahal, J. Tata Road, Bombay 20.

Telephone No.: 296513 (5 lines) Telex: 011-2522

Telegram: "JAGATCAR".

Chairman
Director
General Manager
Secretary
Engineer Superintendent
Deputy Manager
Deputy Manager
Deputy Manager
Accountant

Mr. V. S. Dempo.
Mr. S. V. Dempo.
Mr. S. D. Kataria.
Mr. M. S. Nevaskar.
Mr. H. J. Sequeira.
Mr. J. S. Uberoi.
Mr. S. A. Paingankar.
Mr. S. R. Dasgupta.

#### STEAMSHIP COMPANIES

### MALABAR STEAMSHIP CO. LTD.

Managing Directors: (1) Shri Pratapsinh Shoorji Vallabhdas. (2) Shri Dilip Shoorji.

Address: "Darabsha House", Shoorji Vallabhdas Marg, Ballard Estate, Bombay I.

Branch Offices at: Calcutta, Calicut, Cochin and Alleppey.

Agencies at: All important Ports, in and outside India.

Cable Address: "RUBICON" at all Ports.

Telephone Nos. 26-3625 (5 Lines).

#### STEEL MFRS.

## JOLLY STEEL INDUSTRIES (P) LTD.

Special Twisted Steel Bars and Spring Steel Washers

(Used in all types of machinery & Automobile Industries)

Office: 23, Bund Garden Road, Poona-1; Phone: 22440. Factory: Nagar Road, POONA-14.

Phone: 25297.

#### STEEL & ALLOY STEEL CASTINGS

## STEEL CAST CORPORATION

Ravapari Road, Bhavnagar, (Gujarat State).

Phone: 4744

Grams : "STEELCAST".

Specialists in
Steel & Alloy Steel Castings as Per
Customers' Specification.

## STEEL BALLS, ALLOY BALLS, BRASS BALLS

## NEW HAVEN STEEL BALL CORPORATION PRIVATE LTD.

Manufacturers of :

Steel Balls & Alloy Balls, Grinding Media Balls, Miniature Balls, Brass Balls etc. etc.

Office: Pandyan House, 4th Floor, 309, P. D. Mello Road, Bombay I.

Grams: "GULDASTA". Phones: 261522-3.

Factory: 38, Powai Lake Road, Saki Naka, Kurla, Bombay 70.

Phones: 582681/2.

#### STEEL EQUIPMENT MFRS.



#### NATIONAL STEEL EQUIPMENT CO.

Brown Boveri House, 264-265, Dr. Annie Besant Road, Bombay-25.

Phones: 457381, 457382. Grams: "VAPORAX".

Manufacturers of: Equipment for Hospitals, Laboratories and Pharmaceutical industry and heavy-duty industrial Kitchen equipment.

Branches: Delhi - Calcutta - Madras.

#### STEEL FURNITURE MFRS.



## CHANDAN METAL PRODUCTS PRIVATE LIMITED

Manufacturers of: Steel Furniture & Equipment for Offices, Homes, Hospitals, Canteens, Libraries etc.

Executive Office & Works: Gorwa Road,
Chemical Industries P.O., Baroda.

# GRAHAM FIRTH STEEL PRODUCTS (INDIA) LTD.

Regd. Office: 16, Horniman Circle, Fort, Bombay-I. Phone: 252847. Grams: "GRAMFIRTH".

Manufacturers of:—Narrow Cold Rolled Steel Strips of Plain Carbon, Medium Carbon and Alloy Steel. Factory: Firsteel Compound, Behind Jogeshwari Marshalling Yard, Western Express Highway, Goregaon (East), Bombay 63. Phones: 691802, 693977.

#### STEEL WIRE MFRS.

## B. R. STEEL PRODUCTS PRIVATE LIMITED

Antop Hill, Wadala, Bombay-31.

Gram: 'BEEAREWIRE'. Telephones: 44-3730.

#### Manufacturers of:

Cold heading quality wires, Wires for welded mesh, Telegraph/Telephone wires, Rivet wires, Stay wires, Round cable armour wires, Galvanised wires, Mild steel hard bright wires, Mild steel black and bright annealed wires, Chain rivet wires, Cycle accessory wires, Reed wires and other qualities.

#### STEVEDORES

## NEW DHOLERA SHIPPING & TRADING CO. LTD.

Darabsha House, 10, Shoorji Vallabhdas Marg, Ballard Estate, Bombay 1.

Branches: Cochin, Calcutta.

Telegram: "RAVASIA", Bombay.

Telephone No. 263443.

#### STEVEDORES & DUBASHES

## ARDESHIR B. CURSETJEE & SONS (PRIVATE) LTD.

Master Stevedores, Dubashes, Clearing & Forwarding Agents.

Lighterage & Landing Contractors; Suppliers of fresh water to Ships in the port of Bombay; Contractors for handling bulk oil.

Address:—6, Rampart Row, Bombay I. Telephone Nos. 317363, 252543 & 317141. Telegram Address:—"GREYHOUND."

#### STEVEDORES & DUBASHES

#### EASTERN BUNKERERS LTD.

Stevedores, Bunkerers, Dubashes, Landing, Victualling, Chipping & Painting Contractors, Clearing, Forwarding & Insurance Agents.

> Scindia House, Narottam Morarjee Marg, Ballard Estate. Bombay 1.

Phone: 262461. Grams: "VAVTO".

Directors: Smt. Sumati Morarjee (Chairman), R. P. Vevaina, J. C. Nanavati, S. P. Patel, Dhirajlal Maganlal Dalal, S. C. Sheth (Mg. Director).

### STEVEDORES & MARINE CONTRACTORS

## HILL, SON & DINSHAW PVT. LTD.

Stevedores & Marine Contractors.

Managing Directors: Dinshaw A. Dhunjibhoy, and Menos Dinshaw.

Marshall's Building, Ballard Road, Fort, Bombay.
Phone Nos. (Head Office): 26-2281, 26-2282 and 266105; Sholapur Street (Godown): 333133;
Darukhana (Godown): 378975. Grams: "HATCH-WAY", Bombay.

#### STONE (JAW) CRUSHERS & SPARE PARTS

#### **NEW RUBY MECHANICAL WORKS**

Manufacturers of: Ruby Jaw Crushers (Complete roller bearing type), crusher accessories & every type of crushers Spare parts.

Office & Factory:

74-B, Vihar Lake Road, Saki Naka, Bombay 72-AS. Phone: 581148 (Bombay).

Grams: "RUBYSPARES" (Kurla).

#### SUGAR MILL MACHINERY MFRS.

## BUCKAU WOLF NEW INDIA ENGINEERING WORKS LTD.

Manufacturers of:-Sugar Mill Machinery.

Bombay Office: "Nirmal", 16th Floor, Central Wing, Nariman Point, Bombay. Phone: 267809

> Poona Office & Works:—Pimpri, Poona-18. Phone: 8265

> > Grams: "DEVCORP."
> > TELEX: PN — 267.

#### SURGICAL GOODS

#### K. CHAPMAN & CO.

462, Sardar Vallabhbhai Patel Road, Bombay-4.

Phone: 351548.

Grams: "TRUSSWORKS."

Manufacturers of Hernia Trusses, Abdominal Belts, Deformity Appliances and Artificial Limbs.

Also Dealers in Surgical Goods.

Proprietor: G. K. Talwar.

#### SURGICAL INSTRUMENTS & APPLIANCES

## IMPERIAL SURGICAL CO. PRIVATE LTD.

"India House", Opp. G.P.O., Fort, Bombay I.

Leading Manufacturers of: Hospital Equipment, Importers of Surgical Instruments, Hospital Sundries,
Catguts and Ligatures, Dental Instruments, ElectroMedical Equipment. Agents: "ISCOMED" Syringes
and Needles. Grams: "IMPSURGCO." Phone:
26-3468. Branches at: Lucknow, New Delhi and
Hyderabad.

#### SURVEYORS

## ITALAB (GOA) PRIVATE LTD.

Industrial Testing and Analytical Laboratories,
Surveyors, Samplers, Analysts; Regd. Office:
Lotlikar Bldg., Margao, Goa.

Phone: 436.

Grams: "MINEROLAB".

#### SURVEYORS

### S. K. SORABJI & CO.

Accident, Marine & Engineering Surveyors, Loss
Assessors & Valuers.

#### Address :-

Army & Navy Bldg., Mahatma Gandhi Road, Bombay I. Telephone: 252726.

#### **SWITCHES**

#### CENTRIFUGAL SWITCHES

for "AG" brand

With Nylon & Bakelite Clutch & Silver Contacts—Governor's Wings of Nickel plated Brass—for single-phase Motors of 1/4 to 1 & 2 HP & Synchronous speeds of 1000/15000/3000 R.P.M.

Tested for over 22 lakh operations.

Now Manufactured in India

#### TRANSACTO

Devkaran Mansion, Block No. 6, 1st Floor, Vithaldas Road, Bombay 2.

Phone: 359710.

Cables: "OTCASNART".

### TARPAULIN

#### 'DUCK'

## TARPAULIN MOST TRUSTED NAME

Dwarkadas Velji Talpatriwala, 135/137, Kazi Syed Street, Bombay-3

Developed new Light, Strong, Flexible Polyfabric Tarpaulin

#### TARPAULIN

#### DAISY TRADING CORPORATION

Tarpaulin Manufacturers, Exporters & Dealers

Material: Tarpaulins, Waterproof Canvas, Tents, Hessian, Bituminised Bags, Tarpaulins of any size.

Commercial Chambers, Masjid Bunder Road,
 P. O. Box No. 3185, Bombay 3.

Phones: Office: 327007; Resi.: 661129.

Grams: "PROOFTALP".

#### TARPAULIN

## KHIMJI VELJI & CO.

Manufacturers of: "KHIMCO" Brand Waterproof Tarpaulins, Waterproof Papers, Hessian Bags, Wax Papers, etc. Dealing in Packing Wood, Baling Hoops, Mattings, Box Strapping, Baling Rivets (for packing all sorts of Textile Products).

62, Dontad Street, Bombay 9

Phones: 325443, 328885

#### **TARPAULIN**

## JERAM SHIVJI & SONS

138, Futnani Chambers, Yusuf Meherali Road, Bombay 3.

Stockists of Tarpaulin, Hessian, Jute Gunny Bags,
Twines, Cotton Canvas, etc.

Phones: Office: 320326: Resi.: 473944.

#### TARPAULIN

## SWASTIK TARPAULINS MANUFACTURING CO.

Manufacturers, Exporters of:

Waterproof Tarpaulins, Lorry & Wagon Covers, Erection of Temporary Monsoon Sheds undertaken. 66/68, Dontad Street, Bombay 9 BR.

Phone: 323181. Grams: "DUCKCOVERS".

## TAXI-METERS & PRECISION INSTRUMENTS R. C. EDWARDS & CO., PRIVATE LTD.

16, Arthur Bunder Road, Colaba, Bombay 5.
Phone: 212032. Grams: "EDDICOM."

Manufacturers of:—ARGO Taximeters Kienzle Vibracorders and other Precision Instruments.

Chairman, Board of Directors:--Sardar Bahadur Bakshi Dalip Singh.

Managing Director:-Major Jagtar Singh.

Chief Agents for the State of Maharashtra:—Kanwal & Co. Pvt. Ltd., 16, Arthur Bunder Road, Colaba, Bombay 5.

#### TEA MERCHANTS

### AMBER TIPS PRIVATE LIMITED

Tea Blenders and Package Tea Packers.

75, New Bardan Lane, Mandvi, Bombay 3.

Phone No. 324684.

#### TEFLON PRODUCTS

## F. PESTONJI & CO.

94, Nagdevi Street, Bombay-3.

Phone: 329122.

Asbestos Packings, Jointings, Sheets Cloth, "TEFLON"
Tapes, Packings, Sheets & Rods, High Pressure Wire
braided Hydraulic Hoses & Couplings.

#### TEXTILE ANCILLARIES

### NEW INDIA INDUSTRIES LTD.

H.O. & Works: Jetalpur Road, Baroda

Foremost Manufacturers of: 'INDIA' brand best Egyptian Cotton Healds, Steel Reeds, Brass Reeds, Striking Combs, Dobby Harness without Rubber, CYCLE brand wire Healds, All Metal Reeds, Jute Cambs, Jute Reeds; SWAR brand Egyptian Cotton Yarn and Staple fibre yarn AGFA Photo Paper and CLICK Cameras; Bombay Office: Industrial Assurance Bldg., 5th Floor, Churchgate, Bombay-20; Phones: 293660, 293704.

#### TEXTILE AUXILIARIES

## AHURA CHEMICAL PRODUCTS PRIVATE LTD.

Manufacturers of:—All Textile Auxiliaries, Surface Active Agents, Turkey Red Oil, Synthetic Anionic Detergents and Wetting Agents, Non-ionic Emulsifiers for various Industries, Cationic Germicides and Softners, Cosmetic Raw Materials and Other General Chemical Products.

Address:—84, Sion Road, Bombay 22.

Telephone Nos:—471394/96.

Telegrams:—" AHURACHEM".

Managing Director:—Mr. S. M. Mistry.

#### TEXTILE AUXILIARIES

#### ESKAY CHEMICAL CORPORATION

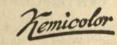
Makers of Quality Products
SKAYWHIT Fluorescent Whitening Agent
ESKAYGENE Printing Dyestuffs
ESKAYLAN Synthetic Detergent

22D, Parsi Bazar Street, Fort, Bombay 1.

Phone: 256305. Grams: "ESKAYGHEM".

#### TEXTILE AUXILIARIES

DR. YAINIK'S



#### INDUSTRIES

Manufacturers :

CONC TEXTALLOW . CHEMICALS AND TEXTILE AUXILIARIES

193-195, D. N. Road, Fort, Bombay 1.

Phone: 261192. Grams: "COLORCRAFT".

Distributors: ALL OVER INDIA.

#### TEXTILE AUXILIARIES

#### N. DINSHAW & COMPANY

(Estd. 1945)

14, Ismail Building, Flora Fountain, Bombay.

Phone: 253488. Grams: "DILINOL".

Importers and Stockists of all types of Mill Stores, Textile Auxiliaries, Pigments, etc. On the list of Govt. Depts., Railways and Textile Mills.

#### TEXTILE CHEMICALS MFRS.

### SARDESAI BROTHERS LTD.

Regd. & Head Office:

82, Advent, 12-A, Gen. Jagannathrao Bhonsle Marg, Bombay I.

Phone: 213377.

Grams: "SARCELL".

Factory at: P. O. Sardesai Factory, Bilimora (W. Rly.).
Phones: 231, 464, 480. Grams: "SARDESAI." Manufacturers of quality Textile Chemicals, Lubricants,
Preservatives, Detergents, Resin Finishes, Carboxy
Methyl Cellulose, Monochloro Acetic Acid, etc.

#### **TEXTILE ENGINEERS**

## ORMERODS (INDIA) PVT. LTD.

Importers & Exporters & Mill Gin Stores
Suppliers.

Address: Bank of Baroda Bldg., Apollo Street, Bombay I.

Phone: 255434/35 (2 lines). Grams: "RAMSHEAD".

#### TEXTILE ENGINEERS

#### KUMUDCHANDRA & CO.

(Estd. 1938)

Accessories for Textile Spinning, Weaving, Winding and Man-made Fibre Plant.

29, Dalal Street, Fort (P.O. Box No. 824), Bombay I.

Phones { Office: 258114 Grams: "VERYGOOD".

#### TEXTILE MACHINERY

## STAR TRADING CO., PVT. LTD., THE

Importers of Textile Machinery, Exporters of Light Engineering Goods & Textile Machinery.

Bank of Baroda Bldg., 12, Apollo Street, Fort, Bombay-1.

Phones: 253480 & 251357. Grams: "STARTRADE."

#### **TEXTILE MACHINERY**

#### CALICO INDUSTRIAL ENGINEERS

Manufacturers of :

TEXTILE WET PROCESSING MACHINERIES

Office: 41-E, Parel Chawl Road, Bombay 12.

Grams: "DYEPRINT." Phones: 442561-62-63

Factory: 20A, Chakala Road, Andheri, Bombay 69.

Grams: "WETPROCESS". Phones: 574381-82-83.

#### **TEXTILE MACHINERY**

## MANUFACTURERS LTD.

Kalwa, Thana.

Phones: 593501/02.

Manufacturers of: Textile Spinning and Weaving Machinery and Spares.

#### **TEXTILE MACHINERY**

## STAR TEXTILE ENGINEERING WORKS LTD.

Manufacturers of:

Textile Machinery & Accessories, Machine Tool Accessories and Engineering goods.

Regd. Office: Dhantay Mahal, Apollo Bunder Road, Bombay I.

Works: (1) Planet Mill Street, Ferguson Road, Lower Parel.

> (2) Manpada-Bhopar, near Dombivli, Thana District.

#### TEXTILE MILLS

#### SHRI VIVEKANAND MILLS LTD.

Manufacturers of Textile Piece goods.
Ahmedabad 21.

Managing Directors:
Shri C. N. Munshaw and Shri B. N. Munshaw.

Spindles: 28,828. Looms: Ordinary 526, Automatic 48.

Manager: I. S. Devashrayee.

Phones: 54687 & 54688. Grams: "VIVEK".

### TEXTILE MILLS RAGHUVANSHI MILLS LTD.

11-12, Haines Road, Bombay 13

Grams: "RAGHUBIR"

Phones: 377425-6-7

Spindles 44,000, Art Silk Looms 144.

Manufacturers of:

Cotton Yarn 10s to 120s, Sewing Threads, Embroidery yarn, Staple Fibre yarn, Blended mixed yarn and Polyester Terene, Nylon and other Man made fibre fabrics—Shirtings—Suitings and Dress materials.

> Managing Directors: Shri Surendra Maganlal. Shri Hareschandra Maganlal.

#### TEXTILE MILLS

### AHMEDABAD JUPITER SPINNING, WEAVING & MANUFACTURING CO. LTD., THE

Dudheshwar Road, Ahmedabad.

Products of Mill No. 1: Medium, Fine and Superfine Cotton Textiles viz. Poplins, Twill and Long Cloth, Dobby Dropbox Sucis, Lawns and Dorias, Butta and Blouse Cloth, Jacquard Table Cloth and Serviettes, 2 × 2 Cambrics, Full Voiles and Lenos, 67 per cent TERENE/33 per cent Cotton Shirtings and Suitings. Available in Bleached, Dyed, Screen Printed, Mercerised and SANFORIZED varieties. (Their Bombay Unit Mill No. 2 is situated at Carroll Road, Parel, Bombay 13, and Office at Indu House, 15, Dougall Road, Parel, Bombay 13, and Office at Indu House, 15, Chandulal P. Parikh, Shri Kanchanlal C. Parikh and Dr. Arvind C. Parikh.

#### THERMOMETERS



**DIAL & THERMOMETERS** 

Dial Thermometers, Industrial & Laboratory Glass Thermometers, Temperature Recorders, Pyrometers & Controllers, Thermostats, Tenp. Crayons, Sling Psychrouneters & Pressure Gauges.

## KRISHNA INSTRUMENTS & APPLIANCES CO.

230, Arun Chambers, Tardeo Road, Next to Air-Conditioned Market, Bombay-34 WB. Telephone: 372213.

#### TILES-ROOFING

#### **REGO SONS**

41/A, Mazagaon, Bombay 10.

Phone: 372622.

3

Grams: "REGOSONS."

Manufacturers of the famous "Engine" Brand Tiles. Factories at Bolar, Mangalore.

#### TIMBER MERCHANTS

#### PAREKH & CO.

Timber Merchants, Direct Importers & Exporters. Largest Stockists of Vellapine Wood suitable for Shuttering purpose.

77, Victoria Road, Mustafa Bazar, Bombay 10, DD.

Phones: 379381 (Office), 375315 (Res.)

Grams: "KAMALKING".

#### TIMBER MERCHANTS

### D. P. CAWASII & Co.

Connaught Saw Mill Compound, D. P. Wadi, Ghorupdeo, Bombay 33.

Office: 374901 Phones: Res. : 215386

Grams: "JUNGLEWOOD"

Timber Merchants and Exporters of Rosewood.

#### TIME-RECORDERS & TIMERS



Time Recorders, Mech. & Electrical Timers, Stop Watches & Stop Clocks, Time-Totalizers, Syn Clock Movements etc.

Contact: KRISHNA INSTRUMENTS & APPLIANCES CO. (TID)

230, Arun Chambers, Tardeo Main Road, Bombay 34. Tel.: 372213.

#### TIN PRINTERS & BOX MFRS.

### ORIENTAL CAN MANUFACTURING CO.

(Prop.: Oriental Containers Ltd.)

Manufacturers of:

Plain & Lithographed Tin Containers Showboards, Calendars, P.P. Caps, etc.

#### Address :

1076, Dr. E. Moses Road, Worli, Bombay 18 Phones: 379546/47 Grams: "ORCANMAN" Resi: 369898.

#### TIN PRINTERS & BOX MFRS.

### THE METAL PRINTERS COMPANY

Office: Aga Khan Building, Dalal Street, Bombay I-BR. Grams: "METALPRINT" Phone: Office 254416

Branches: 14, Princep Street, Calcutta 13.
3B, Jangpura, Mathura Road, New Delhi.

Factory: 103, Govt. Industrial Estate, Kandivlee West, Bombay 67. Phones: 693418 & 692806.

Manufacturers of:

METAL POSTERS, CALENDARS, CASH BOXES, DECORATED CONTAINERS, TRAYS, TOYS, CLOCK DIALS, etc.

## TIN PRINTERS & BOX MANUFACTURERS ZENITH TIN WORKS PVT. LTD.

Manufacturers of Plain & Lithographed Tin Containers, Open Top Sanitary Cans, Collapsible Tubes, Pilfer Proof Caps, Fancy Metal Trays etc.

Keshav Khadye Marg, Bombay 34.

Phone: 370375.

Grams : " ZENITHTINS ".

Directors :

M. S. Barodawala, S. S. Barodawala & H. A. Barodawala. Res.: 126, Cadell Road, Mahim, Bombay 16. Phones: 452041 & 454692.

Res.: Goorishina, 12, Souter Street, Bombay 8.
Phone: 376039.

Res.: Mohamedi Chambers, Byculla Bridge, Bombay 8.
Phone: 378498 and A. A. Barodawala, Administrative Officer.
Res.: 502, Surya Apartment, 53, Bhulabhai Desai, Road, Bombay 26.

#### TIN PRINTERS & BOX MFRS.

## KIV TRADING COMPANY

Manufacturers of: Tin Containers, Screw Caps, Aluminium Seals, Pilfer Proof Caps, Anodised Novelties, Presentation Articles, Tin Seaming & Vial Closing Machines.

Address: Ist Parsiwada, Khetwadi, Bombay-4.

Grams: "KIVGROUP." Phone: 352180.

## TIN PRINTERS & CONTAINERS MANUFACTURERS

## HINDUSTAN TIN WORKS PVT. LTD.

Regd. Office: B-30, Greater Kailash-I, New Delhi 48.

Factory at : G. T. Road, P.B. No. I, Ghaziabad.

Manufacturers of: Plain and Printed Containers for Ghee, Confectionery, Paints & Varnish, Sewing Machine Accessories & Sardine Key Opening, P. P. Caps, Jar Caps, Tomato Ketchup Caps and Plain Polythene Bags of High & Low Density, Offset Printed Paper Labels and Mono-Cartons.

#### **TOBACCO MANUFACTURERS**

#### INDIA TOBACCO CO. LTD.

Factory: 287, Dr. B. R. Ambedkar Road, Parel, Bombay 12 DD.

Phone: 442521 (4 lines).

Grams: "BACCYMAKE (PL)", Bombay.

#### TOILETRIES

## PRIVATE LTD. (INDIA)

Toilet Soaps, Toilet Articles, Steelcrete House, 3, Dinshaw Vachha Road, Churchgate Reclamation, Bombay I-BR. Phones: 295071, 295121 & 295527.

P.O. Box No. 1965. Grams: "PALMOLIVE".

#### TOOL & ALLOY STEEL

Available Ex-Stock :

#### AKSON TOOL & STEEL CO.

119, Nagdevi Street, Bombay 3 (BR).

Importers & Stockists of: High speed steel—Hot Die steel, High Carbon, High Chrome steel, Oil Hardening & Non-shrinking steel, Carbon Tool steel, Nickel Chrome steel, Stainless steel Round, Squares and Flats, Bright drawn bars, Round, Square, Flat, Hexagon and Octagon etc.

Specialised in Silver Steel EN-Specification.

Phone: 372255. Grams: "AKSONTOOL."

#### TOOL, ALLOY & SPECIAL STEEL

### CAMBAY TOOL STEEL CO.

Indentors & Stockists of: Tool and Alloy Steel—High Speed Steel—High Carbon—High Chromium Steel—Oil Hardening Non-Shrinking Steel—Carbon Steel—Stainless Steel—Nickel Chrome Steel—Silver Steel—Hot Die Steel—En Specification Steel, etc.

92A, Memonwada Road, Dada Mansion, Bombay 3.

Phones: Office: 329009, 327344

Grams: "CARBOSTEEL".

#### TOOL, ALLOY & SPECIAL STEEL

### LACHHMIDHAR KANSHIRAM

201, Masjid Bunder Road, Bombay 3.

Stockists of:—High Speed, High Carbon, High Chromium, Oil Hardening, Non-Shrinking, Die Steel, Carbon, Silver, Stainless and EN Specification Steel.

Phones: 322048, 327653. Grams: "IRONGOODS".

#### TOOL, ALLOY & SPECIAL STEEL

SPRING STEEL STRIPS

Indentors & Stockists

#### INDUSTRIES COMBINE

32, Apollo Street, Bombay I.

Phone: 251469. Grams: "JYOTRASHMI".

#### TOOL, ALLOY & SPECIAL STEEL

A sure source for "BOHLER" high grade Steel & "SAVILLE" Steel & all other Tool, Alloy & Special Steel.

#### INDIA TOOL STEEL MART

(Importers & Stockists)
200, Trimbak Parsuram Street, Golpitha,
Bombay 4 (BR).

Phones: 331420 & 334531. Grams: "RAPIDEXTRA".

# TOOL, ALLOY & SPECIAL STEEL CONTINENTAL STEEL CORPORATION

Stockists of:
High Speed Steel, High Carbon, High Chromium
Steels, Oil Hardening Non-Shrinking Steels, Carbon
Steels, Stainless Steels, Nickel Chrome Steels, Silver
Steels, Hot Die Steels, EN Spefn. Steels.

Shop: 12/14, Ardeshir Dady Street, Golpitha, Bombay-1.

Phone: 356074.

Office: Haji Manzil, 82, Abdul Rehman Street,
Opp. State Bank, Bombay-3.

Phones: 325817 & 323893.

## TOOL, ALLOY & STAINLESS STEEL INDUSTRIAL ENGINEERING CO.

Direct Importers of :

Tool, Alloy & Special Steels, Stainless Steel Bars, Tubes, Sheets, Wires.

#### Stockists of :

Mild Steel Commercial & Free Cutting Bars, Super Enamel, Copper & Aluminium Wires, Allen Socket Heads and Grub Screws.

Phone: 257778 Grams: "CALLING".

51, Apollo Street, Fort, Bombay 1.

TOOLS MERS.



#### TOOLS MFRS. & MERCHANTS

### ENGINEERING TOOLS AND HARDWARE MART

31, Lohar Chawl, Bombay 2.

Phones: 310150 & 314703.

Stockists in: Tools for Carpentry, Smithy, foundry fittings, precision tools etc. Suppliers of engineering goods to Engineering Colleges, Polytechnics, Training Institutes, Railways, etc.

#### TRACTORS

### KIRLOSKAR BROTHERS LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona-2.

Distributors of: Deutz Tractors and Machinery manufactured by KL'O'CKNER—HUMBOLDT—DEUTZ AG, West Germany.

Offices: Ahmedabad, Bangalore, Bhubaneswar, Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad.

Distributors: In all towns and cities.

#### TRACTORS & SPARE MFRS. & DEALERS

EQUIPMENT INIECTION LIKE TRACTORS CATERPILLAR INTERNATIONAL MAJOR, FORDSON HARVESTER. CLETRAC. FERGUSON CHALMER, STEYR. ZETOR U.S.S.R. TRACTORS AND SPARE PARTS FOR HERCULES AND DORMAN DIESEL ENGINES.

#### HONESTY TRADING CORPN.

Beaumon Chambers, 27/33, Nagindas Master Road, Bombay I.

Grams : "HOTRACO". Phone: 258119.

Telex: 011-3242.

## TRANSFORMERS MANUFACTURERS HINDUSTAN BROWN BOVERI LTD.

Manufacturers of:
Motors, Transformers, Switchgear equipment upto and including 220 kV Airblast Circuit Breakers, 25 kV traction duty Airblast Circuit Breakers, Electric Furnaces, A.C.S.R. and A.A. Conductors, Importers of all products of BBC and their Concessionaires.

Registered Office:

'Brown Boyeri House', 264/265, Dr. Annie Besant Road, Bombay 25 DD.

Grams: "BROWNBOVER."
Sales & Engineering Division Phone: 456365

Branches: All over India. Works: Baroda, Faridabad, Ghaziabad & Howrah.

#### TRANSFORMERS MFRS.

### VOLTAMP TRANSFORMERS PVT. LTD.

Baroda-Bombay National Highway No. 8, Jambuva (Near Baroda), P.O. Box No. 186, Baroda.

Grams: "VOLTAMP".

Manufacturers of: 'VOLTAMP' brand Power (I) Distribution and Current Transformers.

Transformers ranging upto 5 MVA, 66kV.

Manufactureres of: Transformer Oil Filter Machines.

## TRANSFORMER & ANCILLARY MFRS.

### CTR MANUFACTURING INDUSTRIES LTD.

Works: Nagar Road, Poona-14.

Grams: "CUTTAIR". Phone: 26579, 28810.

Telex: 014-206.

Bombay Office: 607, Mahalaxmi Chambers, B. Desai

Road, Bombay 26.

Grams: "CURATAP". Phone: 358552.

Makers of : Milling Cutters of all types and sizes ; On-load Tap Changers for Power Transformers; Pressed Steel Radiators for all Transformers.

#### TRANSPORT CONTRACTORS

### M. NUSSERWANII & CO.

Transport Contractors & Fleet Owners 94. Mahatma Gandhi Road, Poona-1.

Grams: 'TIMBER '-Poona. Phone: 24891 & 22722.

Offices at: Bangalore, Madras, Bombay, Poona & Pimpri (Poona).

#### TRAVEL AGENTS

## **BUHARIWALA & SONS, B. C.**

(Estd. 1925).

5, Graham Road, 1st Floor, Ballard Estate, Bombay I.

Phone Nos.: 265451/53. Grams: "BECIBESONS." Licensed Clearing, Shipping & Baggage Agents.

Branch Office: 3/A, Asaf Ali Road, Saraswati Devi Building, New Delhi. Tel. 271796.

#### TRAVEL AGENTS

Consult

### ASIATIC TRAVEL SERVICE

For all your TRAVEL requirements Travel Agents Approved by the Government of India, International Air Transport Association.

and members of :-TRAVEL AGENTS ASSOCIATION OF INDIA LTD., F.I.A.V. & A.S.T.A. 12, Murzban Road, Bombay I. Telex: 011-3151.

Tel. 268151 (8 lines). 1/9 Connaught Circus, New Delhi

Grams : "AIRASIA" Phones: 45366, 48580 Grams: "AIRASIA".

#### TRAVEL AGENTS

## **ODHARAM BULCHAND & CO.**

Licensed Clearing, Shipping & Travel agents to the Government of India.

> 19. Bank Street, Fort, Bombay-1.

Phone: 253705.

Grams: "CLEARGOODS"

0

#### TRAVEL AGENTS

### THAKKERS TRAVEL SERVICE

General Sales Agents in—Goa for KLM Royal Dutch Air Lines.

Thakker House, Post Box 8, Vasco-Da-Gama, Goa.

Phones  $\left\{\begin{array}{c} 323\\453 \end{array}\right\}$  (6 Lines)

Grams: 'THAKKERSERV'.

Telex No. 019-204.

#### TRAVEL AGENTS

## KANJI JADHAVII & CO.

Freight Brokers, Stevedores & Landing Contractors, Travel & Shipping Agents, Masjid Bridge, Bombay 9.

Stevedores, Freight Brokers & Landing Contractors to the Scindia Steam Navigation Co., Ltd., Agents to International Air Transport Association Passage & Cargo by AIR-SEA-RAIL. Phones: 323681 to 323687. Janmabhoomi Chambers, Opp. Red Gate, Ballard Estate, Bombay I. Phones: 265551-52. Grams: "GITA". Branches: Karachi, Cutch-Gandhidham (Kandla), Mandvi, Porbunder, Navlakhi, New Delhi.

#### TRAVEL AGENTS

#### MERCURY TRAVELS (I) LTD.



New Delhi : Jeevan Tara Bldg., Gate No. 4A, Parliament Street.

Bombay: 70, Forbes Street, Rampart Row Corner.

Calcutta: C/o Hotel Oberoi Grand.

Madras: Mohan Mansion, 38-C,
Mount Road.

Grams: "MERCTRAVEL".

#### TRAVEL AGENTS & TOUR OPERATORS

## SITA WORLD TRAVEL (I) PVT. LTD.

F-12, Connaught Place, New Delhi.

Phone: 43103.

Travel Agents & International Tour Operators, Bombay, Calcutta, Madras & Srinagar.

Phones:

234477, 449976, 82486 & 3545

#### TYPEWRITERS & ACCESSORIES

## GENERAL TYPEWRITERS (BOMBAY) CO. PRIVATE LTD.

Specialists in rebuilding, servicing and repairs of typewriters, cheque writers and adding machines, typewriters available on hire, sale and exchange.

375, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Phone No. 253258.

#### TYRE MFRS. & DISTRIBUTORS

## FIRESTONE TYRE & RUBBER CO. OF INDIA, PRIVATE LTD.

Regd. Office and Factory: Hay Bunder Road, Bombay 33. Telephone: 370021 (eight lines).

District Office: Swadeshi Mills Estate, New Queen's Road, Bombay 4.

Telephone: 352621-23.

District Offices and Depots also at Ahmedabad, Bangalore, Bombay, Calcutta, Cochin, Cuttack, Delhi, Gauhati, Hyderabad, Jabalpur, Jaipur, Jullunder, Lucknow, Madras, and Patna.

## TYPEWRITERS & OFFICE EQUIPMENTS REMINGTON RAND

OF INDIA LIMITED

"REMINGTON RAND" BUSINESS EQUIPMENT

Bombay Office:

Mehta Mahal, 15, Mathew Road, Bombay 4.

Head Office : Remington House, 3, Council House Street, Calcutta.

Phone: 237401 (10 lines)

Branches at: New Delhi, Madras, Lucknow. Telegraphic Address: 'REMINGTONS' all Offices.

#### UMBRELLA MFRS.

#### BHARAT UMBRELLA MFG. CO.

65, New Hanuman Lane, Bombay-2.

Dealers and Exporters of Umbrellas & Spare parts.

Specialists in Umbrella Cloth.

Phone: 315319. Grams: "DHARUV".

#### VACUUM FLASK MANUFACTURERS

## EAGLE VACUUM BOTTLE MFG. CO. PRIVATE LTD.

Manufacturers of "EAGLE" BRAND Vacuum Flasks, Refills & Insulated wares.

Regd. Office: 144/46, Sheriff Devji (Chuckla) Street, P.O. Box No. 3131, Bombay-3.

Phone: 322096. Grams: "EAGLEFLASK".

Telex: 3297 — EAGLE, BOMBAY.

## VACUUM VESSELS & PUMPS MFRS. KIRLOSKAR BROTHERS LTD.

Regd. Office: Udyog Bhavan, Tilak Road, Poona-2.
Works: Kirloskarvadi (Dist. Sangli) and Dewas (M.P.).

Manufacturers of: Pumps, Valves, Machine Tools,
Hermatic Compressors & Farm Machinery.

Offices: Ahmedabad, Bangalore, Bhubaneswar, Calcutta, Indore, Jaipur, Delhi, Madras and Secunderabad.

Distributors: In all towns and cities.

## VALUERS (MACHINERY, BUILDING & LANDS)

DINSHAW, M. H., & CO.

105, Apollo Street, Fort, P.O. Box 448, Bombay. Gram: "AHOORAT." Phone: 251458. Res.: 532191.

Managing Director:

H. Dinshaw Dungor, M.I.S.E., M.M.E.A. (Ind.), A.S.E. (Lond.), F.S.A.A., M.I.C.E. (U.S.A.).

Managing Partner:

Dinshaw H. Dungor, M.E., M.I.S.E., M.M.E.A., A.M.I.E.T. (London).

Residence:

Victoria Villa, 77, Turner Road, Bandra, Bombay-50.

#### VEE-BELTS

## **AUTO SPARES (INDIA)**

Stockists of Vee-Belts & Fan Belts of all makes & types.

Opp. Opera House, Bombay-4.

Phones: 356920 & 355714.

#### WASHERS MFRS.

#### FAIRFIELD MANUFACTURING CO.

Manufacturers of :

Helical Spring Washers to BS: 1802, IS: 3063 & DIN: 127; Belleville Spring Washers to DIN: 137; Shakeproof Washers to DIN: 6797; Fan Disc Lock Washers to DIN: 6798; Circlips (Retaining Rings) to DIN: 471, 472 & 6799 and IS: 3075; Also, Spring Action Lock Nuts (Pal Nuts) and Precision Strip Forms to customers' specification.

Hanuman Bldg., 4th Floor, Tambakanta, Pydhonie, Bombay 3 (BR).

Factory at: Masrani Estate, Halav Bridge, Kurla, Bombay 70 (AS).

#### WASH-'N'-WEAR FINISHING

For the Full Range of Modern Wash-'N'-Wear Finishing
Agents for Textiles.

#### Contact

#### ASSOCIATED CHEMICALS

12-A, Mahendra Industrial Estate, Behind Sion Fort, Sion (East), Bombay-22.

Phones : { Office : 475793. Factory : 555661.

One of the largest manufacturers of Textile Auxiliaries. Free Laboratory service rendered to clients to obtain any desired finish.

#### WASHING & DYEING COMPANY

## GARMENT CLEANING WORKS

The largest Power Laundry in India, 43 Branches in the City.

Laundry Contractors to all leading Shipping Companies, Railways and Hotels.

Head Office & Factory:

Garment House,

37-43, Dr. Annie Besant Road, Worli, Bombay 18.
Telephones: 373478/373479.
Malabar Hill Factory: 364110.

#### WASHING & DYEING COMPANIES

#### THE DIANA-ECLIPSE CO.

Cleaners & Dyers

Specialists in Carpet & Upholstery Cleaning Service.

Address: Holland House, Colaba Causeway, Bombay I.

Phone: 211962.

#### WATCH STRAPS MFRS.

Insist on



#### **NYLON & PLASTIC WATCH STRAPS**

Manufacturers: KIRAN PLASTIC WORKS 2/3, Anees Chambers, Carnac Road, Bombay 1. Phones: 267047 (Office); 328413 (Factory).

#### WATCH STRAPS & BRACELETS MFRS.



#### DESAI TRADING CO.

"ARISTO" brand watch straps and Bracelets.

Address:

189, Abdul Rehman Street, Bombay-3.
Phone: 321170. Grams: "MANPRAN".

# WATCH STRAPS & BRACELETS MANUFACTURERS COLLINS & CO.

Manufacturers of quality
Watch Straps in Stainless Steel, Gold-plated, Nylon,
Leather & Plastic etc.

Trade "Benter" Mark

Bentex Building, Tulsiwadi, Off Tardeo Road, Bombay 34. Phone: 376196. Grams: "BENTEXBAND".

#### WATCH & CLOCK IMPORTERS, DEALERS AND MANUFACTURERS

### LAWRENCE WATCH CO.

Empire Bldg., 150, Dadabhoy Naoroji Road, Fort, Bombay I.

Phones: { 264318. Grams: "HAIRSPRING."

Direct Importers of Watches, Clocks, Timepieces, etc. Repairing is our Speciality. Approved contractors of Government and Railways.

## WATCH & CLOCK IMPORTERS, DEALERS & MANUFACTURERS

#### EXCELSIOR WATCH CO. PVT. LTD.

64/64A, Abdul Rehman Street, P. O. Box No. 3001, Bombay 3.

Phone: 324085. Grams: "EXCELWATCH".

Dealers in Watches, Clocks, Timepieces, Watch Materials, Watchmaker Tools, etc. Sole Distributors for well-known "RIVEX" and "SEVAK" Wall clocks.

## WATCH & CLOCK IMPORTERS & MANUFACTURERS

#### EASTERN WATCH

231-3, Dr. Dadabhai Naoroji Road, Bombay I.

Watches and Clocks Manufacturers and Importers.
Tower Clocks Specialist. Every type of Electric Clocks,
Time Recorders, Floral Clocks, Master & Slave Clocks
System.

Post Box No. 263. Phone No. 261962.

#### WATCHES, CLOCKS & PICTURE FRAMES

#### D. R. PUNDOLE & SONS

Sole Manufacturers of :

"BEAUMONT" Watches & Clocks and agents for "Cyma" Watches.

"CHEMOULD" Picture Frames.

369, Dadabhoy Naoroji Road, Fort, Bombay I (BR). Tel. No. 298473.

Prop. of PUNDOLE ART GALLERY Contemporary Art Paintings

#### WATCHES, CLOCKS & WATCH STRAPS

#### VOG & CO.

Empire Bldg., Dr. Dadabhoy Naoroji Road, Bombay I.

Phone: 264068. Grams: "VOGSTRAPS".

Manufacturers of: Quality Nylon Watch Straps, Bracelets in Stainless Steel & Rolled Gold & Clocks.

#### WATERPROOF PAPER MFRS.

#### WARDEN & CO. PVT. LTD.

Quay Street, Mazagon, Bombay-10 DD.

Manufacturers of:-

Security Brand Waterproof and Waxed Paper, Gummed Paper, Toilet Tissue Paper, Paper Tubes, Multi-Wall Paper Sacks, Hessian-Lined Paper/ Polythene Bags, Fibre Drums and Plastic Carboys.

Phone: 370306-7-8. Grams: "WARDENCO".

#### WATERPROOF PAPER MERS.

## **NEPTUNE'S**

Waterproof **Papers** 

Manufacturers of:
WATERPROOF
PACKING PAPER
Jute-lined Paper · Polythene-lined Hessian Paper

Polythene-lined Hessian Paper and Bags Polythene-lined Kraft Paper Hessian-lined Paper Bituminised Hessian Waxed Paper Etc. Etc. Roofing Felt.

NEPTUNE WATERPROOF MFG. CO.

OFFICE: 105, Churchgate Chambers, New Marine Line Street, Bombay 20 BR.

Grams: "READYCASH."

WATERPROOF PAPER MFRS. THE PACKING MATERIALS CORPORATION

K. S. Gadgil Marg (East), Off Gokhale Road, Bombay 25 DD.

Manufacturers of:

Bituminised Waterproof Papers; Bituminised Paper-lined Hessians and Bags; Bituminised Polythenelined Hessians and Bags; Bituminised Polythene-lined Paper, Waxed Papers.

To I.S.I., Govt. and Buyer's Specn. Phone: 452824. Grams: "SUNLIGHT".

### WAX CANDLES & WAX MANUFACTURERS

## **FATEH INDUSTRIES & STORES**

175, Samuel Street, Bombay-9 (BR).

Manufacturers, Exporters & Wholesalers of quality Candles & Wax Products.

Insist on "FISH" brand Candles and "FATEH" brand Deepaks.

> 320601 Office: Factory: 592982 Phones -581878 Resi. :

#### WEIGHING MACHINES & SCALES

### FIDAALLI GULAMALI

(Estd. 1885)

163, Janjikar Street, Bombay 3.

Phone: 326133.

Factory:

Wagle Industrial Estate, Road No. 22, Plot No. A-320, Thana.

Show Room :

41-A, Sarang Street, Bombay 3.

Weighing Machines, Scales and General Merchants. Stockists of: "AVERY" Weighing Machines.

#### WEIGHTS, SCALES & MEASURES

#### A. M. MASTER & CO.

179-81, Janjikar Street, Bombay 3.

Manufacturers of: "HORSE" & "AEROPLANE" brand Goldsmith's scales, "APOLLO" brand Counter Scales.

Agents for: "ROLEX" Centre indicator type Counter Scales.

Sole Selling Agents for : "SOEHNLE" Counter Scales. Dealers in : All kinds of Scales & Weights, Metric Weights & Measures. SALTER Spring balances & German Counter Scales & Platform Weighing Machines.

Phone: 326309.

#### WELDING ENGINEERS

#### TUBE-WELD ENGINEERING WORKS

Fabricators of: Super Heater, Economiser & Heat Exchanger Tube Coils, Tube Coils bent to shape, Expansion bends. High Pressure Steam Pipes & Fittings.

Office: 177, Nagdevi Street, Bombay-3. Phone: 320181 (2 lines).

Works: Acme Industrial Estate, Sector C-5, Sewri (East), Bombay 15 (DD). Phone: 445614.

Grams: "TUBEWELD", Bombay.

Reply Back Code: TUBES. Telex: 011-3358.

#### WELDING MATERIAL & SAFETY APPLIANCES



**IOSEPH LESLIE & CO.** 

105, Apollo Street, Bombay I.

Manufacturers of : Safety Appliances and Welding Equipment.

Grams: "LEONINE." Phone: 251608.

#### WINDING WIRES MFRS. HINDUSTAN TRANSMISSION PRODUCTS

(Prop.: Madhusudan Ltd.)

Manufacturers of: Winding Wires, Cotton & Paper Covered Wires, Paper Covered Copper Strips, Wooden & Plastic Bobbins, Enamelling & Wiredrawing Machines, Copper Salts, Insulating Varnishes, Polyvinyl Formal, Polyester and Melamine Formaldehyde Based Wire Enamels, Polyvinyl Formal, Terephthalic and Thalic Acid Based Polyester Resins, Cresylic Resin, Melamine Formaldehyde etc.

Office: Chandivali, Kurla-Vihar Road, Bombay 72.
Grams: "COILWIRES", Kurla, Bombay.
Telephone Nos. 581364/65.

Regd. Office: 198, J. Tata Road, Bombay 1.

## WINE & SPIRIT MERCHANTS

## PHIPSON & CO. LTD.

Sangam Bhuvan, Colaba.

Phones : { 213115 213116

Grams: "PHIPSON," Bombay.

Branch Manager : A. J. Pinto.

Head Office: Calcutta.

Branches in India: New Delhi, Madras, Ernakulam, Visakhapatnam, Bangalore, Jorhat, Cuttack and Lucknow.

### WIRE PRODUCTS MFRS.

## HINDUSTHAN WIRE NETTING CO. PRIVATE LTD.

Manufacturers of :-

Wire Gauge, Hexagon Wire Netting, Galvanized Chain Link Fencing, Galvanized Stranded Stay Wires, Galvanized Signal Wires, Stranded Copper Conductors, Bright Wire Nails, Panel Pins and Barbed Wire. Works: Agra Road, Thana.

#### WIRE PRODUCTS MFRS.

### MULTIWELD WIRE CO. PRIVATE LTD.

59, Marol-Maroshi Road, Marol, Bombay 59.

Manufacturers of: Wire and Wire Products including 'MULTIWELD' Electrically Welded Wire Fabrics. Available in sheets and rolls, suitable for all types of Protection and for Concrete Reinforcement.

Also manufacturers of: Steel Balls of precision quality with DIN-5401, AFBMA-50 and ISS-2898 Specifications for Ball Bearings Industry.

Phones: 574414-15 Telex: 011-2002

Cable: "MULTIWELD", Andheri, Bombay.

#### WIRE PRODUCTS MFRS. & DEALERS

Phone: 312461 Grams: WIREMESH, Bombay-2. Telex: 011-3244. Code: WIRENET.

### **EVERGREEN WIRECLOTH FACTORY**

151/155, Princess Street, P.B. No. 2046, Bombay-2.

Leading Manufacturers of:

Welded Wiremesh, High Tensile Spring Steel Wire Screen, Wire Gauze, Hex. Wirenettings, Chainlink Fencing, Crimped Wirenet, Barbed Wire, Panel Pins & Other Wire Products.

Branch: 182, Nainappa Naick Street, Madras-3. Phone: 32846. Grams: "WIRECLOTH," Madras-3.

#### WIRE PRODUCTS MFRS. & DEALERS

#### NATIONAL WIRE HEALD WORKS PRIVATE LTD.

Manufacturers of : All types of Wire Healds and Flat Healds.

Regd. Office: Lakshmi Building, Block 70, 4th Floor, Sir Phirozeshah Mehta Road, Fort, Bombay I. Phones: 26-9581/83. Grams: "TROPICALS."

Works: 54/56, Hill Side, Tardeo Road, Bombay 7

and Mohili, Andheri-Kurla Road, Bombay,
Directors: J. B. Gotla, M. A. Hoosein, B. R. Daver,
R. B. Gotla, M. D. Daver,
Sales Dept.: At British Mill Stores Co., Sir Vithaldas

Chambers, Bruce Street, Fort, Bombay-I. Phone: 255235.

#### WIRE ROPES

## BOMBAY WIRE ROPES LTD.

15A, Horniman Circle, Bombay 1.

Phones: Grams:

250891, 294089, 293235. "SUPERROPES".

Manufacturers of: Quality Steel Ropes in Technical Collaboration with KOBE STEEL WORKS LTD., and ASAHI-WIRE ROPE MFG. CO. LTD. (JAPAN), for Mining, Drilling, Aerial Ropeways, Oil Wells, Lifts, Hoists, Elevators, Cranes, Suspension Bridges, Fishing, Dredging, Shipping, Aircraft Control, Automobile Control, and Signalling. Also Flattened Strand Ropes and Wire for various applications. Factory: Kolshet Road, Thana. Phone: 592679.

#### **WOODEN BARRELS & CASKS**

## COOPER & SONS, DHANJIBHAI NAOROII

78/80, Kika Street (Gulal Wadi), Bombay 4.

Phone: 333759.

Pioneer Manufacturers of Wooden Casks, Barrels, Vats, Tubs, Oblong Tubs, Flower Tubs, Ice-cream Tubs, any size or shape, (Available in capacity 5 Gallons to 5,000 Gallons). Best for Dyes, Chemicals, Pharmaceuticals, Textile mills, Ayurvedic medicines, Pickles, Juice, Food Stuff, Wine and Toddy.

#### WOOLLEN MILLS

### RAYMOND WOOLLEN MILLS LTD.

Registered Office:

J. K. Building, Dougall Road, Ballard Estate, Bombay I.

Mills :

P. O. Jekegram, Thana (Maharashtra)

Phone Nos. Regd. Office: 267581. Mill Office: 594181

Grams: "RAYOLAGRAM," Telex: JAYKAY BY 2295.

#### WOOLLEN & TERENE PIECEGOODS

Contact:

## HAJI ABDUL REHMAN HAJI SUMAR & CO.

Latest House in Woollen & Terene piecegoods.

63, Chakla Street, Bombay 3.

Phone: 323011. Grams: "SUMARCO".

#### WORKSHOP MACHINERY

#### MALHOTRA TRADING CORPORATION

Basement 4, Commerce House, Medows Street, Bombay 1.

Phones: 256328-298740. Grams: "LOHVASTU."

Dealers in Lathes, Shapers, Milling Machines, Drill Machines, Hand Presses, Power Presses, Printing and Paper Cutting Machines, Electric Motors, Switches, Starters, Grinders, Polishing Lathes, Reversible Switches, True Chucks, Dog Chucks, other Machine Tools & Spares of all description.

## X-RAY MACHINES & SURGICAL EQUIPMENTS

### ELPRO INTERNATIONAL LTD.

Chinchwad, Poona 19. Phones: 8201, 202, 203.

Manufacturers of: X-Ray and Surgical equipment, Calrod Heating elements, Lightning Arresters, Intensifying and fluoroscopic screens and Magnets (cost Alnico & Ferrite) for domestic and industrial applications.

Resident Director: J. A. Meher-Homji.

#### ZIP FASTENERS

## MADHU SNAP FASTENERS MFG. CO. PVT. LTD.

Manufacturers of: Snap Fasteners, Zip Fasteners and Component parts and Bifurcated Rivets.

Sanghavi Chambers, 27, Ghoga Street, Fort, Bombay I.

Phones : { Office : 258042. Grams : "VIRVANDAN"

Factory: 250D, Udyog Bhavan, Worli, Bombay 25. Phone: 454519. Directors: M. K. Sanghavi; Mrs. S. M. Sanghavi.

#### ZIP FASTENERS

#### MADHU FASTENERS CO.

Manufacturers of: Zip Fasteners Brass & Aluminium Strips. Sanghavi Chambers, 27, Ghoga Street, Fort, Bombay I. Phones: 258042 (Office) & 357336 (Res.). Grams: "VIRVANDAN". Factories at: 250/D, "Udyog Bhavan", Worli, Bombay 25; Phone: 454519 and Udyognagar, Bhaktinagar Station Road, Rajkot (Saurashtra). Phones: 24943 & 24201. Proprietor: M. K. Sanghavi.

#### ZIP FASTENER MFRS.

#### FLEET FASTENERS (PRIVATE) LTD.

Manufacturers of



THE QUALITY ZIPPER
"Delstar", 1st Floor, 9-9/A, Hughes Road,
Bombay 26-WB.

Telegrams: "FLEETFAST".
Telephones: 355238-39; Factory: 571237.

#### ZIP-FASTENERS (NYLON) MFRS.

Your requirements of: NYLON Zip Fasteners can be satisfied both in quality and quantity with NYLOC, India's most modern Nylon Zip Fasteners.

Manufactured by

#### NYLO PLAST INDUSTRIES PVT. LTD.

Nyloc House, 254-D2, Dr. Annie Besant Road, Prabhadevi, Bombay-25 DD.

Phone: 456231. Grams: "NYLONZIP".

# SCIENCETODAY

## ON THE THRESHOLD OF A NEW WORLD

The spectacular achievement of space travel and the resulting advances in technology, have thrust man on the threshold of new horizons. Science plays far too great a part in our lives to be ignored.

To help you understand how it moulds your life SCIENCE TODAY, an engrossing monthly, presents articles and features on the latest developments in science and technology. It acquaints you with the work of foremost scientists in India and abroad.

SCIENCE TODAY, being written in a simple, lucid language is easily understood by both scholar and layman. You become science-oriented by reading SCIENCE TODAY.

A TIMES OF INDIA PUBLICATION

# WE OFFER YOU THESE SERVICES

For Cement and Iron Ore Pelletisation Plants and Allied Industries:

- · Feasibility reports and analysis
- · Selection of process design
- Proposals and estimates
- Plant layouts and engineering
- · Selection of plant and equipment
- Design of structures
- Erection and commissioning of plant

For further particulars please contact:
PROJECT PLANNING & SALES DIVISION



ENGINEERING DIVISION OF THE ASSOCIATED CEMENT COMPANIES LIMITED

Cement House, 121 Maharshi Karve Road, Bombay 20.

everest/890 er/ACC

# 'PRITAM'

25 · 4 & 38 · 1 mm.

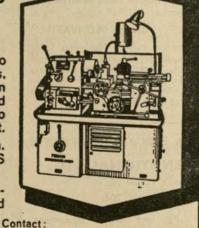
All-Geared, with auto feeds, Turret Lathes.

Complete with Norton Gear Box, 4 speed Geared, Auto-feeds to cross-slide and Turret.

Also 19 mm. & 25 mm.

CAPSTAN LATHES with Norton Gear Box.

Guaranteed for precision performance and service after sales.



SHUBH MACHINERY CORPORATION PVT. LTL

15. Bank Street, Bombay-1. Phone: 318761, Gram: 'SHUBHROLL'

. STATEWISE AGENTS WANTED

### PHYSIOGRAPHY

#### STATES, TERRITORIES

The country is divided into 17 States and 10 Territories. The latter are under Central administration.

The 17 States (with the capital towns in brackets) are:

Andhra Pradesh (Hyderabad), Assam@ (Shillong), Bihar (Patna), Gujarat (Ahmedabad\*), Haryana (Chandigarh‡), Kerala (Trivandrum), Madhya Pradesh (Bhopal), Tamil Nadu (Madras), Maharashtra (Bombay), Mysore (Bangalore), Nagaland (Kohima), Orissa (Bhubaneshwar), Punjab (Chandigarh‡), Rajasthan (Jaipur), Uttar Pradesh (Lucknow), West Bengal (Calcutta), Jammu and Kashmir (Srinagar).

The 10 Territories (with capital towns in brackets) are:

The Andaman and Nicobar Islands (Port Blair), the Laccadive, Minicoy and Amindivi Islands (temporary headquarters at Kozhikode, Kerala), Delhi (Delhi), Himachal Pradesh (Simla), Manipur (Imphal), Tripura (Agartala), Dadra and Nagar Haveli (Sylvasa), Goa, Diu and Daman (Panaji), Pondicherry (Pondicherry) and Chandigarh‡ (Chandigarh).

In addition, there is one territorial unit: The North-East Frontier Agency, administered by the Governor of Assam as Agent of the Central Government.

#### **GEOGRAPHY**

Bounded by the Himalayas in the north, the country stretches southwards and, at the Tropic of Cancer, tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west. Lying entirely in the northern hemisphere, the mainland extends between latitudes 8°4′ and 37°6′ north and longitudes 68°7′ and 97°25′ east, measures about 3,219 km. from north to south and about 2,977 km. from east to west and covers an area of 32,76,141 sq. km.† It has a land frontier 15,168 km. long and a coastline of 5,689 km.

According to the 1961 Census the total population was 439,234,771.

The population grows roughly at the rate of  $2 \cdot 3$  per cent (i.e. about 13 million a year). The population of India in 1969-70 (estimate) was about 540 million.

Physical Features: The mainland comprises three well-defined regions 1) the great mountain zone of the Himalayas, 2) the Indo-Gangetic Plain and 3) the southern Peninsula.

The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys some of which, like the Kashmir and Kulu valleys, are fertile, extensive and of great scenic beauty. In these ranges, some of the highest peaks in the world are situated. The high altitudes limit travel only to a few passes, notably the Jelep La and Nathu La on the main Indo-Tibet trade route-through the Chumbi valley, north-east of Darjeeling. The mountain wall extends over a distance of about 2,414 km. with a varying depth of 240 to 320 km. In the east between India and Burma and India and Pakistan, the hill ranges are much lower. The Garo, Khasi, Jaintia and Naga hills running almost east-west join the chain of the Lushai and Arakan hills running north-south.

The Indo-Gangetic Plain, 2,414 km. long and 241 to 321 km. broad, is formed by the basins of three distinct river systems the Indus, the Ganga and the Brahmaputra. Between the Yamuna river at Delhi and the Bay of Bengal,

nearly 1,609 km, away, there is a drop of only 214 metres in elevation.

The Peninsular plateau is marked off from the Indo-Gangetic Plain by a mass of mountain and hill ranges varying from 458 to 1,220 metres in height. The more prominent among these are the Aravali, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on one side by the Eastern Ghats, where the average elevation is about 614 metres, and on the other by the Western Ghats where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between the Eastern Ghats and the Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri Hills where the Eastern and Western Ghats meet. The Cardamom Hills lying below may be regarded as a continuation of the Western Ghats.

Geologically also, India consists of the same three distinct units, namely, the ancient block of the Peninsula, the Himalayas and their associated group of young fold-mountains and the Indo-Gangetic Plain.

India is so vast and diversified that expressions like 'average rainfall,' 'average temperature' have no meaning. The average annual rainfall in the Thar desert is 4 inches, while that in Cherrapunji is 425.

Similarly places in Kashmir have a minimum temperature of 49°F, while places in Rajasthan have recorded a maximum temperature of 120°F. So one can only speak of local averages rather than of national averages.

Compared with the size of the country, the coast-line is short, as there are few bays or inlets. Hence there are also very few harbours. The fact is the west coast is rocky and the sea is deep near the coast, while in the east the sea is extremely shallow so that big ocean-going ships have to weigh anchor at some distance from the shore.

The only so-called natural harbours are Bombay and Goa, while Madras, Vishakapatnam and Port Okha are examples of purely artificial harbours built by human enterprise.

The principal ports in India are (going from west to east along the coast), Kandla, Bedi Bunder, Port Okha, Porbandar, Surat, Bombay, Mormugao, Mangalore, Kozhikode (Calicut), Cochin, Alleppey, Quilon, Tuticorin, Dhanushkodi, Nagapattinam, Karikal, Cuddalore, Pondicherry, Madras, Masulipatnam, Kakinada, Vishakapatnam and Calcutta.

The main cultivated plants include rice, wheat, pulses and grains. Among the important seeds grown are castor, sesamum and ground-nut.

The chief fruit trees include mango, coconut, arecanut and certain citrus fruit. Apples, peaches, pears, apricots and walnuts are confined chiefly to the Himalayan valleys.

There are tea plantations over large areas on the mountains in the north-east and south, while coffee, cardamom, pepper and rubber are extensively grown in the south. In some of the damper regions the cinchona is successfully cultivated.

Among the wild animals are the tiger, the elephant, leopard, panther, the cheetah, the marbled and jungle cat, the wolf, jackal, wild dog, the black and the Himalayan bear, the rhinoceros, crocodile, wild hog, wild ass, antelope, gazelle, sambhar, spotted dear, bison, wild buffalo, many kinds of reptile (cobra, Russel's viper).

<sup>\*</sup>Actually a new capital is under construction outside the city. † Including Sikkim (7,107 sq. Km.). ‡ The Union Government announced on January 29 its decision to transfer the capital project area of Chandigarh to Punjab within the next five years. Pending the construction of a new capital for Haryana, Chandigarh will remain a Union Territory. @ An autonomous Hill State within Assam called the Meghalaya State comprising the Khasi, Garo and Jaintia hill districts of Assam came into being on April 2, 1970.

Among the domestic animals are cattle, buffaloes, sheep, goats, horses and ponies, mules and donkeys, camels, and fowl.

Birds include the parrot, peacock, mains, different kinds of vulture and eagle, kingfisher, pigeons, ducks, partridges, plover, quail and snipe.

Among the more useful insects are the bee, silk worm, coceus laca (the one that gives lac). Mosquitoes abound everywhere. Locust invasions are not frequent.

Edible fish include the carp family, cat fishes the hilsa and mahseer.

River Systems: The rivers in India may be classified as follows: (a) the Himalayan rivers, (b) the Deccan rivers, (c) the coastal rivers, and (d) the rivers of the inland drainage basin. The Himalayan rivers are generally snow-fed and have, therefore, continuous flow throughout the year. The Deccan rivers are generally rain-fed and, therefore, fluctuate very much in volume. The coastal streams specially of the West Coast, are short in length and have limited catchment areas. The streams of the inland drainage basin of Western Rajasthan are few and far between. They drain towards the individual basins or

salt lakes like the Sambhar or are lost in the sands, having no outlet to the sea. The Luni is the only river that drains into the Rann of Kutch. The Ganga is joined by a number of Himalayan rivers including the Yamuna, Ghaghara and the Kosi. The western most river of the Ganga system is the Yamuna which joins the Ganga at Allahabad. Of the rivers flowing north from Central India into the Yamuna or the Ganga, mention may be made of the Chambal, the Betwa and the Sone.

The river basin of the Godavari is the second largest in India. It comprises about 10 per cent of the total area of the country. The basins of the Brahmaputra in the east and the Indus in the west are of about the same size. The Krishna basin is the second largest in Peninsular India. The other rivers are the Mahanadi, the Narmada in the uplands of the Deccan and the Kaveri in the far south. The Tapti in the north and the Pennar in the south are agriculturally very important.

Climate: The India Meteorological Department recognises four seasons: (1) the cold weather season (December-March), (2) the hot weather season (April-May), (3) the rainy season (June-September) and (4) the season of the retreating south-west monsoon (October-November).

## A TOURIST'S GUIDE

For all information and assistance, visitors are advised to contact the Government of India tourist offices in India. The representatives of the Tourist Department are stationed on duty at the airport and in the case of Bombay a representative of the Tourist Department passenger liners.

THE following hints meant for foreign tourists may be useful:

1. Every foreign tourist entering India should be in possession of a valid passport issued by his Government.

He should also obtain before leaving his country a tourist visa from the Indian representative abroad (or the British representative in countries where there are no Indian representatives). Commonwealth citizens (except those of Pakistan, Ceylon, persons employed in the Defence Services of Pakistan), British subjects, British protected persons, British citizenship passport holders ordinarily residents of Kenya, nationals of Norway, Swed en, Denmark and Finland are exempt from the visa requirement, provided their passports are valid for travel to India. Persons of non-Indian origin domiciled in South Africa are, however, required to obtain visas for India.

Transit visas are not required for through air/ship passengers in direct transit by the same flight or by the next regularly scheduled flight irrespective of whether the flight is of the same or a different Airline, provided the period does not exceed 7 days. No landing permits will be issued to Pakistanis, South Africans of European extract, Portuguese of European extract, and citizens of People's Republic of China. However, in the case of Pakistanis, landing permits are issued for 24 hours' duration only. No direct transit facilities are, however, granted to the Chinese.

The normal period of stay cannot be stated. It depends upon the stay period granted by the visa issuing authority.

For short visits not exceeding 2 weeks to Pakistan, Nepal, Ceylon and Burma tourists may obtain return visas from the Deputy Commissioner of Police, Special Branch II, C.I.D., Head Police Office, Annexe-2, Mahatma Phule Market, Bombay or from State Government. For visits exceeding 2 weeks, they may apply for 'no objection' to return to India endorsements to the Deputy Commissioner of Police, Special Branch II, C.I.D., Bombay or State Government. However in such cases they will have to obtain visas from the Indian authorities abroad before entering India.

2. No registration is required for foreigners staying in India for 90 days or less provided they have come on visas of 3 months or less. If they land in India with visas for more than 3 months' stay, then they must report for registration within 7 days to the Registration Officer of their destination and present the "B" Form (temporary registration certificate) issued to them at the place of entry.

Commonwealth citizens are exempt from registration formalities, except British Passport holders whose national status is described as British Subject and missionaries, British protected persons and Australian protected persons.

Return visa or double/triple entry visa holders would be required to get themselves registered after 90 days of their actual stay in India and not after 90 days of their first entry into India.

Departures: Tourists, if they are registered, are exempted from reporting their movements and also from taking departure endorsements from the Registration Officer with whom they are registered.

It should be brought to the notice of tourists to surrender their registration papers at the time of their departure, as it is found that tourists or others who get themselves registered before the expiry of 90 days and leave India also before completion of 90 days, carry registration papers with them. For holders of Entry Visas: Visitors holding registration certificates have to obtain before departure exit endorsements from the Registration Offices of the District in which they are initially registered.

3. The Government of India have placed no health restrictions on persons entering India by sea or air, except in regard to yellow fever.

Tourist visas are generally valid for a single journey only, but visitors who wish to proceed on short trips to other countries and return to India within the period of validity of the Indian visa, should apply for double or triple entry visas or entry-cum-transit/transit-cum-entry visas. If a visitor coming on short term visas wishes to extend his stay in India, he can, after arrival in India, apply for further extension of stay.

Foreigners who come on visits not exceeding three months for recreational or sightseeing purposes or for attending meetings convened by the Government of India or international bodies should, in their own interest, apply for tourist visas and not entry visas. Holders of tourist visas are entitled to the grant of Tourist Introduction Cards and All-India liquor permits, reservation of accommodation in Government-owned Rest Houses and Retiring Rooms at railway stations, etc.

4. All baggage is subject to customs examination. Articles of high value e.g. radios, cameras, binoculars, type-writers, transistors, etc. are exempted from duty provided they are entered in the re-export declaration form and re-exported within 6 months.

5. Tourists are allowed to bring into India foreign currency notes of any amount subject to declaration on the Currency Declaration Form issued by the customs at the air/sea port or checkpost on the land border.

There is no limit on the amount of Travellers' Cheques. Import and export of Indian currency are banned.

The official rates of exchange are as follows: £1 equal to Rs. 18.00; U.S. \$1 equal to Rs. 7.50. The actual buying and selling rates, however, differ slightly from these rates.

Additional concessions for tourists:

Liquor Permits: Bona fide tourists having Tourist Visas/Tourist Introduction Cards can obtain All-India liquor permits valid for three months from Indian Missions abroad or from the Tourist Offices of the Government of India at Delhi, Bombay, Madras and Calcutta if they have not already an All-India Liquor Permit from Indian Missions abroad. The Government of India Tourist Office at Bombay is at 123, Maharshi Karve Road, Bombay-20.

Sporting Fire-arms: Not more than three sporting firearms brought in by a tourist are allowed free of duty. These must, however, be re-exported within a period of six

months.

Cartridges: 200 cartridges are allowed duty-free under the normal rules. Each tourist is allowed to bring in 200 cartridges, on payment of customs duty, but without an Import Trade Control Licence.

Film: A tourist is allowed to import 25 rolls of film or 48 plates for still cameras and 8 reels of substandard movie films duty free under the normal rules. Besides, he can import any number of rolls of films that could be adopted for the cameras imported without limit in quantity for still cameras after paying full customs duty without a licence. The quantity in excess of the duty free limit is subject to being entered on the Re-Export Form.

On production of a certificate from an authorised officer of the Tourist Department of the Government of India, foreign tourists are allowed a concession of 15 per cent on the basic air-conditioned first class fares and

'Travel As You Like' ticket on the Indian Railways, available for 30 days in an air-conditioned class of accommodation and in first class where air-conditioned accommodation is not available at a lump sum rate of Rs. 723.

#### TRAVEL AGENCIES

List of some Travel Agencies Approved by the Government of India with their telegraphic addresses within inverted commas:

Agra: Messrs. Travel Corporation of India Pvt. Ltd., Hotel Clarks Shiraz, Agra: "LEMUIR".

Ahmedabad: Lee & Muirhead (India) Pvt. Ltd., Kothari Mansion, Relief Road, Ahmedabad (Branch).

Bangalore: Bharat Travel Service (P) Ltd., D-9, 5th Main Road, Ghandhinagar, Bangalore-9 (Branch): "EXCURSION"; Messrs. Ram Mohan & Company Ltd., Chamber of Commerce Building, Kempe Gowda Road, Bangalore-9 (Branch): "GACANPAC"; Thos. Cook & Son Ltd., 200, Mahatma Gandhi Road, Bangalore (Branch): "COUPON"; Trade Wings (P) Ltd., 15, St. Mark's Road, Bangalore (Branch): "TRAVEL".

Bombay: American Express International, Oriental Building, 364, Dr. Dadabhai Nawroji Road, P.B. No. 507, Bombay-1 (Head Qrts.): "AMEXCO"; Asiatic Travel Service, Post Box No. 1569, 12, Murzban Road, Fort, Bombay-1 (Head Qrts.): "AIRASIA"; Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay-1 (Branch): "BALMER"; Cox & Kings (Agents) Ltd., Lloyds Bank Building, Dr. Dadabhai Nawroji Road, P.B. No. 398, Bombay-1 (Head Qrts.): "COXSHIP"; Everett Travel Service, 221, Dr. Dadabhai Nawroji Road, Post Box 523, Bombay-1 (Branch): "TRAVERETT"; Sita World Travel (India), 316, Nataraj Hotel, Bombay-1: "SITATRAVEL"; Jeena & Company, Post Box No. 849, 10, Veer Nariman Road, Fort, Bombay-1; "JUSTITIA"; Lee & Muirhead (India) Pvt. Ltd., 12, Rampart Row, Fort, Bombay-1 (Head Qrts.): "LEMUIR"; Mercury Travels (India) Pvt. Ltd., 70, Forbes Street, Fort, Bombay-1. (Branch): "MERCTRAVEL"; Thos. Cook & Son (Continental Overseas) Ltd., P.B. No. 46, Cooks Building, Dr. D. Nawroji Road, Bombay-1. (Head Qrts.): "COUPON"; Trade-Wings (Private) Ltd., 30/32, Rampart Row, Fort, Bombay-1 (Head Qrts.): "TRAVEL"; Orient Express Co. Pvt. Ltd., UCO Bank Bldg., 359, Dr. Dadabhai Nawroji Road, Bombay 1.

Calcutta: American Express Co. Inc., P.B. No. 2311, 21, Old Court House Street, Calcutta (Branch): "AMEXCO"; Balmer Lawrie & Co. Ltd., 21, Netaji Subhash Road, P.B. No. 4, Calcutta-1 (Head Qrts.): "BALMER"; Everett Travel Service, I, Old Court House Street, Calcutta-1. (Head Qrts.): "TRAVERETT"; Jeena & Company, 25, Netaji Subhash Road, Calcutta-1 (Branch): "TRAVELJENA"; Mercury Travels (India) Pvt. Ltd., Oberoi Grand Hotel, Calcutta (Head Qrts.): "MERCTRAVEL"; Sita World Travel (India) Private Ltd., 24-B, Theatre Road, Calcutta (Branch): "SITATRAVEL"; Trade Wings (Calcutta) Pvt. Ltd., 15, Old Court House Street, Calcutta-1. (Head Qrts.): "TRAVELLING"; Travel Corporation (India) Pvt. Ltd., Great Eastern Hotel, Calcutta (Branch): "TRAVELAIDS"; Speedways International, 3, Chowringhee Square, Calcutta-13 (Head Qrts.): "SKYINT"; Orient Express Co. Pvt. Ltd., National Tobacco Bldg., 1 & 2, Old Court House Corner, Calcutta.

Cochin: Harrison & Crossfields Ltd., Post Box No. 4, Cochin-1 (Head Qrts.): "CROSFIELD".

Coimbatore: Messrs. Ashok Travels, Pvt. Ltd., R. B. No. 1484, India House, Trichy Road, Coimbatore-18.

Dehra Dun: A. S. Chugh & Co., 6, Astley Hall, Dehra Dun (U.P.) (Head Qrts.): "CHUGH".

Delhi: American Express Co., Inc., Hamilton House, A-Block, Connaught Place, New Delhi-1 (Branch): "AMEXCO"; Asiatic Travel Service, 1/90, Connaught Place, New Delhi-1 (Branch): "AIRASIA"; Cox & Kings (Agents) Ltd., Indra Place, Connaught Circus, P.B. No. 134, New Delhi-1 (Branch): "COXSHIP"; Everett Travel Service, Prom House, C-Block, Connaught Place, New Delhi-1 (Branch): "TRAVERETT"; Jeena & Co., Jeena House, 50, Hanuman Road, Connaught Place, New Delhi-1. (Branch): "TRAVELJENA"; Mercury Travels (India) Pvt. Ltd., Hotel Imperial, Janpath, New Delhi (Branch): "MERCTRAVEL"; Sita World Travels (India) Pvt. Ltd., 1st Floor, F12-13, Connaught Place, New Delhi (Head Qrts.): "SITA-TRAVEL"; Trade-Wings (P) Ltd., 60, Janpath, New Delhi (Branch): "TRAVIT"; Travel Corporation (India) Pvt. Ltd., C-35, Connaught Place, New Delhi-1 (Branch): "TRAVELAIDS"; Orient Express Co. Pvt. Ltd., 70, Janpath, New Delhi 1.

Hyderabad: Trade Wings (P) Ltd., Post Box 475, Abid Road, Hyderabad (Branch): "TRAVEL".

Madras: Asian Travel (India) Pvt. Ltd., 1, Patullos Road, Mount Road, Madras-2 (Head Qrts.): "WORL-TRAVEL"; Mercury Travels (India) Pvt. Ltd., C/o Hotel Savoy, 39, Mount Road, Madras-6 (Branch): "MERCTRAVEL"; Ram Mohan & Co. Private Ltd., 362, Netaji Subhash Road, P.B. No. 1723, Madras (Head Qrts.): "GACANFAC"; Thos. Cook & Son (Continental & Overseas), 4/5, First Line Beach, Madras-1: "COUPON"; Trade-Wings (P) Ltd., Purushottam Buildings, 193, Mount Road, Madras (Branch): "TRAVELAGES"; Orient Express Co. Private Ltd., 35, Mount Road, Madras (Branch): "OFEXPRESCO".

Poona: Trade-Wings (P) Ltd., 321, Mahatma Gandhi Road, Poona (Branch): "TRADEWINGS".

Srinagar: Mercury Travels (India) Pvt. Ltd., Oberoi Palace Hotel, Srinagar (Branch): "MERCTRAVEL"; Travel Corporation (India) Pvt. Ltd., Kaul Building, Hotel Road, Srinagar (Branch): "TRAVELAIDS".

Trivandrum: Kerala Travels, Mascot Hotel, Trivandrum-1 (Head Qrts.): "WELCOME".

#### SHIKAR OUTFITTERS

The following is a list of recognised shikar outfitters. The telegraphic address is given within brackets:

Allwyn Cooper (P) Ltd., Wardha Road, Nagpur: (QUALITY, NAGPUR); Indian Shikar & Tours (P) Ltd., Jumna Bhavan, 3/14A, Asaf Ali Road, New Delhi: (BIGGAME, NEW DELHI); Rao Naidu Shikars, Tara Villa, Benzonbagh, Nagpur: (BULLET, NAGPUR); Tigerland Shikars, 49-Denning Road, Jabalpur (M.P.): (FRANKLYWOOD, JABALPUR); Big & Small Game Hunting, Raghunathpur, Dist. Morena (M.P.): (TIGER, MORENA); Hunters & Hunters, 212-Olympus Apartments, Altamount Road, Bombay: (TIGERHUNT, BOMBAY); Shikar Adventures, 5-B-960/1, Faish Jung Lane, Jawaharlal Nehru Road, Hyderabad: (HUNTS, HYDERABAD); Wild Sports of India, 'The Grove', P. O. Hazaribagh, Bihar: (THE GROVE, HAZARIBAGH); Professional Flaunters, Sajjan Singh Bldg., Mount Road Extension Sadar, Nagpur; Carlton Tiger Hunters, Carlton Hotel, Shahnajaf Road, Lucknow: (CARLTON, LUCKNOW); Kumaon Hunters (P) Ltd., Tajpur Estate Farms, P. O. Afzalgarh. Dist. Bijnor (U.P.): (HUNTERS, AFZALGARH); Allwyn Mercury (N.I.) (P) Ltd., Hotel Oberoi Intercontinental, New Delhi: (INHOTELCOR, NEW DELHI); Dewas Tiger Hunters, Dewas (M.P.),

(Khas, Kothi, Bombay-Agra Road); Super Safaris, P.B. No. 365, Ghat Road, Nagpur: (RAJLAKS, NAGPUR); Shikar India, Talcher, Dhenkanal, Orissa: (SURESHOOT, TALCHER); Tiger Trophies, 430-Napier Town, Jabalpur: (TROPHIES, JABALPUR); Safaris India, 102, Simrole Road, Mhow (M.P.): (SAFARINDIA, MHOW); Jungleways, Pachmarhi (M.P.): (JUNGLEWAYS, PACH-MARHI); Royal Safari, the Palace, Amod, Distt. Baroda, Gujarat; Tiger Sports (P) Ltd., The Garh, P.O. Bhadri (U.P.); Tigers & Tigers, M. I. Road, Jaipur: (TIGERS, JAIPUR); Maharaja Tiger Shikars, Brijraj Bhawan, Kota (Rajasthan); Spots & Strips Shikar Company, Tikra House, 25, Cantonment Road, Lucknow-1.

#### TOURIST OFFICES

The following is a list of Government of India tourist offices in India and abroad :

Director, Govt. of India Tourist Office, 123, Maharshi Karve Road, Bombay-20.

Director, Govt. of India Tourist Office, 88, Janpath, New Delhi.

Director, Govt. of India Tourist Office, 13, Old Court House Street, Calcutta.

Director, Govt. of India Tourist Office, 35, Mount Road, Madras.

Manager, Govt. of India Tourist Office, Krishna Vilas, Station Road, Aurangabad.

Manager, Govt. of India Tourist Office, The Mall, Agra. Manager, Govt. of India Tourist Office, 15-B, The Mall,

Manager, Govt. of India Tourist Office, Willingdon Island, Cochin-3.

Manager, Govt. of India Tourist Office, Rajasthan State Hotel, Jaipur.

Director, Govt. of India Tourist Office, 19 East 49th Street, New York 17, N.Y. Director, Govt. of India Tourist Office, 685, Market

Street, San Francisco 5, California. Director, Govt. of India Tourist Office, Indisches

Verkehrsburo, Kaiser Strasse 77, Frankfurt/Main, W. Germany.

Director, Govt. of India Tourist Office, Carlton Centre, 55, Elizabeth Street, Sydney, N.S.W. (Australia).

Director, Govt. of India Tourist Office, 8, Boulevard, de la Madeleine, Paris-9.

Information Assistant, Govt. of India Tourist Office, Railway Station, Jalgaon.

Manager, Government of India Tourist Office, Gulab Bhavan, Jammu.

Director, Govt. of India Tourist Office, 177-79, King Street (West), at University, Toronto, Canada.

Govt. of India Tourist Office, No. 1, Ginza, 7 Chome, Chuo-Ku, Tokyo (Japan).

Govt. of India Tourist Office, 201, North Michigan Avenue, Chicago (U.S.A.).

Note: Most of the State Governments have Tourist Offices at the important centres.

#### PLACES OF TOURIST INTEREST\*

Mount Abu (hill station): Pop. 8,076 in Rajasthan, about 4,000 feet above sea-level. Places worth a visit: 1, the Dilwara Jain temples (11th-13th century, A.D.) containing the finest marble carvings in India, 2. Achalgarh temples (15th-16th century, A.D.) and Mandakini Kund, 3. Ruins of an ancient town called Chandravati, 4. Nakki Talao (lake), 5. Arbuda Devi, a shrine cut in rock, 6. Guru Shikhar (5,646 ft.), highest point in Abu, 7. Sunset point, 8. Palanpur point, 9. Gaumukh Temple and Agni Kund, 10. the Municipal Park. Mount Abu is reached by railway and road.

<sup>\*</sup> When the population of a town is not given, it may be generally assumed that it is less than 20,000.

Agra: Pop. 5,08,680, a city in U.P., stands on the Jamuna. It was the capital of the Moghul Empire. Places worth a visit: 1. the Taj Mahal, regarded by many as the most beautiful building in the world, 2. the Fort, 3. the Juma Masjid, 4. Moti Masjid, 5. the tomb of Itmad-ud-Daula, 6. Akbar's tomb at Sikandra about five miles from Agra, 7. Dayal Bagh, 8. Twenty-three miles from Agra is the deserted city of Fatehpur Sikri founded by Akbar.

Ahmedabad†: Capital of Gujarat; is the second largest textile centre in India. It contains numerous monuments of the fifteenth and sixteenth centuries. Pop. 11,49,918.

Places worth visiting are: 1. Jumma Musjid (1423); 2. Shah Alum's Mausoleum (1475); 3. Rani Sipri's Mosque (1540); 4. Mosque of Sidi Sayyad (1572) for traceried windows with palm and paradise design; 5. Shaking Minarets; 6. Shahi Baug where Gurudeo Tagore stayed during his youth and which supplied him with material for his Hungry Stones (story); 7. Teen Darwaza (three Gates); 8. Mahatma Gandhi's Sabarmati Ashram; 9. Kankaria Tank; 10. Gujarat University & Gujarat Vidyapitha; 11. ATIRA, Textile Research Institute.

Ajanta Caves: are 66 miles north of Aurangabad in Maharashtra. The rock-cut caves are 29 (5 chaityas or shrines and 24 viharas or monasteries, all Buddhist) and present a record of a unique combination of painting, sculpture and architecture of a period extending over nine centuries from about the 2nd Century B.C. to about 7th Century A.D. The caves can be reached from Aurangabad where there is a good railway hotel.

Allahabad: (also called Prayag); city in U.P. situated at the confluence of the Ganga and the Jamuna. It has an old fort and an Asoka pillar. Sixty-five miles from Allahabad is Kosambi, where the ruins of an ancient capital are being excavated. Pop. 4,11,955.

The confluence is the holiest bathing place for Hindus. Prayag is the holiest bathing place for Hindus in India. Every 12 years, Kumbha Mela (religious fair) is held attracting over 40 lakhs of pilgrims during the four weeks; a smaller fair occurs every six years—Adha Kumbhi.

The old Mughal Fort contains an underground temple where well carved images are seen and the pilgrims worship at a small tree taking it to be the Eternal Banyan Tree (Akshaya Vata).

Almora: headquarters of the district of the same name, in U.P. 83 miles from Kathgodam Railway Station, it is the main town in Kumaon Hills (q.v.). Perched at an elevation of 5,600 ft., it is about two miles in length, like a saddle, and is said to have been founded four hundred years ago by Raja Kalyan Chand. Almora has moderate rainfall, temperate climate, the temperature seldom rising above 88°F., even during the summer days, and comparative freedom from fog. Within easy distance of Almora are many Himalayan peaks—Seehee Debi, Bandnee Debi and Binsar being the chief ones. Binsar Hilf also known as Jhandi Dhar is only 13 miles from Almora and the bridle path leading to it, passes through enchanting jungle scenery.

Pindari Glacier can be reached from Almora at a distance of 75 miles, in eight stages, attaining an altitude of 13,000 to 14,000 ft. The most suitable time for this trip is either May-June or September-October.

Two other places in the Kumaon Hills are: Ranikhet and Naini Tal.

Amritsar: city in the Punjab, sacred to the Sikhs. Pop. 3,76,295. Amritsar is the very centre of the Sikh religion and has a big trade in grain and textiles. Places worth a visit: 1. the Golden Temple, 2. Baba Atal Tower, 3. Akal Takht, 4. Ram Bagh Gardens, 5. Fort Govind Garh, and 6. Jalianwalla Bagh Memorial.

Aurangabad: in Maharashtra. Places worth a visit are: 1. Bibi-ka-Muqbara—the tomb of Auragzeb's wife which is a replica of the famous Taj, 2. Panchakki (old water-mill), 3. The shrine of Shah Musafir, 4. Eight Buddhist caves near the town. Pop. 87,579.

Anand: town half-way between Baroda and Ahmedabad, is the headquarters of the Amul Cooperative Society producing milk, butter, cheese and baby food. Without keeping any cattle of its own it is an up-to-date and modern unit with 40,000 members spread over an area of 1,300 square miles around it.

Bangalore: Largest city in Mysore and a health resort, is about 3,000 feet above sea-level. Places worth a visit: 1. Cubbon Park, 2. Lal Bagh, 3. Band-stand, 4. Race Course, 5. Maharaja's Palace, 6. Tippu's Palace, 7. Venkataramanaswamy Temple, 8. Vidhan Soudha (new Secretariat). Pop. 9,05,134.

Banaras†: town in U.P. on the Ganges, very sacred to the Hindus and Buddhists alike. It is in fact the religious capital of Hindu India and contains about 1,500 temples besides countless minor shrines. It is the oldest city in the country. Pop. 4,71,258. Places worth a visit: 1. Vishwanath Temple, 2. Bharat Mata Temple, 3. Manmandir, with Jaisingh's Observatory, 4. Aurangzeb's Mosque, 5. Gyan Wapi, 6. Nandeswar Kothi, 7. Ramnagar Fort, 8. Banaras Hindu University, and 9. Sarnath, a great Buddhist centre with many architectural remains, is about six miles from Banaras. The Buddha preached his first sermon here.

Barauni: Oil refinery in Bihar for processing crude oil, App. cost Rs. 39 crores. Also a Thermal Power Station.

Batanagar: an industrial town near Calcutta of the Bata Shoe Factory.

Belur: in Mysore State, noted for its elaborately sculptured temples of the Hoysala period.

Bhadravati: in Mysore State. The Mysore Government's iron and steel plant is located here.

Bhakra-Nangal: twin-towns, round the huge Rs. 170 crore hydro-electric and irrigation project in which the waters of the Sutlej are controlled by dams, and diverted for irrigation and the generation of electric power. A modern fertilizer factory was commissioned on Feb. 22, 1961 at Naya Nangal. Heavy water for Atomic Energy is also produced here for export.

Bhilai: in Durg district of M.P., is the site of an integrated iron and steel plant, set up in the public sector with Russian help.

Bhubaneshwar: Orissa's new capital; city of temples once said to number 7,000. Pop. 38,211. Places worth a visit: 1. Lingaraj Temple, 2. Mukteshwar Temple, 3. Parasurameswar Temple, 4. Raj Rani Temple. Nearby are the Jain and Buddhist rock-cut caves of Khandagiri and Udayagiri and Asoka's Rock Edict at Dhauli. Bhubaneshwar is on the main S. E. R. line between Waltair and Howrah, about 20 miles from Cuttack and 38 miles from Puri.

Bijapur: town in Mysore State, capital of the old Adilshahi Sultans of Bijapur, is rich with the remains of palaces, mosques and tombs. Places worth a visit: 1. Jami Masjid (the greatest mosque in South India), 2. Gol Gumbaz (the tomb of Mahammad Adil Shah and the second largest dome in the world), also called the Whispering Gallery, 3. Mehtar Mahal, 4. Ashar Mahal, 5. Gagan

<sup>\*</sup> A new capital is under construction outside the city. † The official name is Varanasi. Note: Population figures are for 1961.

Mahal, 6. Chini Mahal, 7. Mecca Masjid, 8. Tas-Bavry (water-tank), 9. Malik-I-Maidan (Great Gun), 10. Landi-Kasab Gun, 11. Haider Burj (tower), 12. Ibrahim Roza (the tomb and mosque of Ibrahim II), 13. Jala Mandir (reservoir), 14. Chand Bavri (old tank), 15. Granary, 16. Bara Kaman Masjid, and 17. Begum Tank. Bijapur is a railway station on the Gadag-Sholapur section of the Southern Railway. Pop. 78,854.

**Bokaro:** in Bihar, site of the Bokaro Steel (public sector) plant, (distinct from Bokaro thermal power station of the D.V.C.) being built with Soviet help.

Bombay: second city and port in India, is the Gateway to India, Pop.\*: 4,152,056. Area (Greater Bombay) 174 sq. miles. Places worth a visit: 1. the Gateway of India, 2. Apollo Bunder, 3. Prince of Wales Museum, 4. the Town Hall, and Central Library, 5. Rajabai Tower and University Building, 6. Victoria Terminus of the Central Railway, 7. the General Post Office, 8. Mahatmaphule Market, 9. Brabourne Stadium, 10. Chowpatty sands, 11. Malabar Hill, Hanging Gardens and Kamala Nehru Park, 12. Central Station, Terminus of the Western Railway, 13. Race Course, 14. Bhandarwada Reservoir and Gardens, 15. Victoria Gardens and Albert Museum, 16. Bharatiya Vidya Bhavan. Places near Bombay: 1. Juhu (sea-side resort), 2. Versova (sea-side resort), 3. Vihar Lake, 4. Kanheri Caves (rock-cut caves of Buddhist origin), 5. Jogeshwari Caves, 6. Vajreshwari (temple and hot springs), 7. Mandapeshwar (cave temple), 8. Nirmal (temple and lake), 9. Ambarnath (temple), 10. Pawai Lake and the Technical Institute, 11. Pali (hot springs and small game shooting), 12. Elephanta Caves, 13. Vaitarna (water supply scheme), 14. Aarey Milk Colony, 15. The oil refineries at Trombay. 16. The Atomic Energy Establishment at Trombay, 17. Fertilizer unit at Trombay.

Budh Gaya: near Gaya, in Bihar, a Buddhist centre of pilgrimage. It contains the famous Buddhist temple near the Bodhi Tree under which the Budha attained Enlightenment. Pop. 6,299.

Burnpur and Kulti: twin towns in which the Indian Iron and Steel Co. Ltd. has its works. Situated near Asansol on the border of West Bengal and Bihar, on the Grand Trunk Road.

Calcutta: until March, 1912, the headquarters of the Indian Government, and now, as then, the commercial capital of India. It is the terminus of three great railways, and the port of an immense river traffic. Though it lies 84 miles from the Bay of Bengal on the River Hooghly, it has a larger foreign trade than any other Indian port. It is the centre of five great industries—jute, tea, hides , and skins, coal and lac. Population: Calcutta City (Corporation) 2,927,289. Places worth a visit: 1. Victoria Memorial (contains a picture-gallery and museum), 2. the Indian Museum, 3. Zoological Gardens, 4. Jain Temple, 5. Kalighat Temple, 6. Belvedere House (where the British Viceroys stayed when on visit to Calcutta), now the National Library, 7. Raj Bhavan (residence of the Governor of West Bengal), 8. Marble Palace (containing art treasures, property of the Mullik family), 9. Fort William, 10. Eden Gardens, 11. Town Hall, 12. Haig Market, 13. Dalhousie Square, 14. Race Course, 15. Dhakuria Lake, 16. Hindu bathing ghats, 17. Dakshineshwar Temple. Places near about Calcutta are: 1. Bally (holy place), 2. Belur (home of the Ramakrishna Mission), 3. the Botanical Gardens (contains the biggest banyan tree in existence), 4. Diamond Harbour (fort and customs house), 5. Dum Dum (airport of Calcutta).

Cambay: a city of antiquity and an old port in Gujarat. Today it has acquired importance as Lunej oil and natural

gas have been discovered. Drilling with Russian technical help is in progress. (See article on 'Petroleum').

Chandigarh†: now a Union Territory and also capital of Punjab & Haryana; youngest of Indian Capital cities. Chandigarh is situated near Kalka railway station of the Northern Rly. Pop. 89,321.

Chittaranjan: near Asansol, on the border of Bihar and W. Bengal. The industrial colony came into being with the establishment of the broad gauge locomotive and boiler and electric locomotive factory.

Conjeevaram (Kanchipuram): the city of temples, the Banaras of the South, is about 45 miles to the southwest of Madras. The place is divided into three parts, Shiva Conjeevaram, Vishnu Conjeevaram and Pillayar Paliyam, a testimony to the part played by all the main Hindu religious sects in the history of the city. There are over a thousand temples in all. Places worth a visit: 1. Kailasnath Temple (over 1,000 years old), 2. Vaikunth Perumal Temple (over 1,000 years old), 3. Ekambareswar Temple (400 years old), 4. Vedaraja Perumal Temple. Pop. 92,714.

Conjectvaram is on the Renigunta-Chingleput section of the Southern Railway and is easily accessible from Madras via Chingleput.

Coonoor: hill station on the Nilgiri Hills in Tamil Nadu, is about 6,000 feet above sea-level. The climate is mild and genial neither too hot in the summer nor too cold in the winter. The mean day temperature is 64 degrees. Places worth a visit: 1. Sim's Park (contains collection of plants), 2. Low's Waterfall, 3. Tiger Rock (hill fort). There are innumerable places for excursion and picnic purposes, e.g. the Droog, the Dolfin Nose, the Lamb's Rock, Laz Falls, Lady Canning Seat, the Ralliah Dam and Catherine Falls.

Coonoor lies on the narrow-gauge Mettupalayam-Ootacamund line of the Southern Railway. It is also connected by road with Ootacamund, and Kotagiri, another hill station.

Dalmianagar: is situated on the west bank of the river Sone, 350 miles by rail from Calcutta. The Rohtas Industries Limited and Ashoka Cement Limited, manufacturers of cement, paper, sugar, vanaspati, asbestos, cement sheets, etc., are located here providing employment direct and indirect to 60,000 persons.

Darjeeling: hill station in West Bengal, lies on the lower slopes of the Himalayas about 370 miles to the north of Calcutta. It is 7,110 feet above sea-level. The maximum temperature in the summer is about 70°F and the minimum in the winter is about 35. The town commands picturesque views including that of great peak Kanchenjunga and on a clear day of Mount Everest. Various sports are available such as fishing, shooting and horse-riding. Darjeeling has also a first-class sanatorium known as Eden Sanatorium. Places worth a visit: 1. Government House, 2. Town Hall, 3. Museum, 4. Observatory Hill (from where a magnificent view of Kanchenjunga can be obtained), 5. the Mall, 6. Natural History Botanical Gardens. 7. Birch Hill Park, 8. Senchal Lakes, 9. Ghoom Monastery, 10. Tiger Hill (from where the sun-rise over Everest is generally viewed on clear October mornings).

Darjeeling is the terminus of the meter-gauge Darjeeling-Himalayan section of the N.E. Railway and is about 27 hours' journey from Calcutta. From Siliguri where the visitor has to change, Darjeeling can also be reached by car. Pop. 40,651.

<sup>\*</sup> Greater Bombay. Note: Population figures are for 1961. † The Union Government announced on January 29 its decision to transfer the capital project area of Chandigarh to Punjab within the next five years. Pending the construction of a new capital by Haryana, Chandigarh will remain a Union TerAtory.

Delhi (New): the capital of India and the seat of the Union Government. New Delhi houses the President's House (Rashtrapati Bhavan), the Parliament, and the Secretariat and many new official buildings for the respective ministries: Rail Bhavan (Railways), Krishi Bhavan (Agriculture), Udyog Bhavan (Industry), Yojana Bhavan (Planning), Rabindra Bhavan and Vigyan Bhavan are centres for cultural activities. Pop. 2,61,515.

Delhi (Old): also called Shahjahanabad, the ancient capital of India stands on the Jamuna and is enclosed by a stone wall with seven gates. No city in India contains as many historical remains as Old Delhi. Pop. 9,14,790 (1951). Places worth a visit: Red Fort, Jama Masjid, Rajghat (Mahatma Gandhi's Samadhi), Ashoka Pillars, Feroze Shah Kotla, Purana Quila, Humayun's Tomb, Isa Khan's Tomb, Lodi Park and Lodi Tombs, Safdar Jang's Tomb, Kutub Minar, Tughlaqabad, India Gate or War Memorial Arch, Shanti Ghat (Jawaharlal Nehru's Samadhi), Vijay Ghat (Lal Bahadur Shastri's Samadhi), Shri Lakshmi Narayan Temple, Jantar Mantar or the Observatory.

Delhi is directly connected by rail and air with Bombay, Calcutta and Madras. Delhi also lies on the direct East-West transworld air routes linking India with all the major cities of the world.

Durgapur: in West Bengal, 100 miles from Calcutta, is the site of an integrated iron and steel plant in the public sector, set up with British help. The Durgapur Coke Ovens plant run by the Government of West Bengal, the Durgapur Barrage, the canal system and thermal power house (of the D.V.C.) are also located here. An optical glass unit, Coal Mining Machinery Plant of Heavy Engineering Corpn. Ltd., a Technical Institution and Alloy Steel Plant are also working to full capacity.

Elephanta Caves: on an island of the same name, about 6 miles from Bombay harbour, are dedicated to Shiva and the sculpture shows that God in His many forms. These belong to the 7-8th century. The main cave, almost 125 sq. ft. is the only impressive structure, and the rest of the island is used more as a picnic spot by holiday makers. There is a launch service as well as a ferry steamer. An official of the Archaeological Department is available on the spot.

The main figure of three-heads, Mahesh Murti, is considered among the world's most impressive sculptures, for its size, beauty and execution.

Ellora Caves: are situated about 15 miles to the north-west of Aurangabad. The caves excavated in the face of a hill are 34 and run north to south for a mile and a quarter. The hill has the shape of a crescent having Buddhist, Hindu and Jain cave temples. There are 12 Buddhist, 17 Hindu and 5 Jain caves. The Hindu caves are more lavishly decorated than others and Kailash which is the most impressive is also the biggest cave temple in India. It stands in a court averaging 154 feet wide, 276 feet long with a scrap 107 feet high at the back. The Ellora Caves are about a thousand years old. They are reached from Aurangabad by bus or car. Ghrishneshwar temple near the caves is one of the 12 Jyotirlingas of India.

Fatehpur Sikri: city founded by Akbar in 1569 but abandoned soon after, is 23 miles from Agra. The place contains a number of palaces, shrines, mosques built of marble and red sandstone. Buland Darwaja, the Gateway of Victory, built to commemorate the conquest of Khandesh, is 176 feet high and is the highest gateway in India. It forms the southern gateway to the most imposing structure in Fatehpur Sikri, the Jami Masjid, said to be a copy of the mosque at Mecca or Medina, Panch Mahal,

Diwan-i-Khas (Hall of Private Audience), Mariam's House, Palace of Jodh Bai, House of Birbal, Elephant Tower and Khas Mahal are other notable buildings. Fatehpur Sikri has a railway station, and it can be reached by car.

Gandhigram: about 25 miles from Madurai (South India) is a new colony, a large training centre intended to put Gandhian principles into actual practice.

Gandhigram (Visakhapatnam): near Waltair in Andhra, is one of the major ports and the site of a ship-building yard.

Gaya: big town in Bihar, on the Phalgu river, sacred to Hindus and Buddhists alike. The Vishnupada temple, built by Ahilyabai Holkar of Maheshwar over the foot-print of Vishnu is the centre of the pilgrimage and the Akshaya Vata, the Eternal Banyan tree, is an object of veneration. See also Budha Gaya. Pop. 1,51,105.

### Gersoppa Falls (see Jog Falls).

Gulmarg: an ideal hill station in Kashmir, about 29 miles from Srinagar, is a little less than 9,000 feet above sea-level. It boasts of all modern facilities and is particularly noted as a winter playground for skating, ski-ing, tobogganing, and golf. Round about are ideal places for walks, rides and excursions.

Hardwar: U. P. a great Hindu pilgrim centre, is situated at the foot of the Siwalik hills on the right bank of the Ganga where the river enters the plains. The bathing ghat is called Hari Ki Payri (step of Hari). Every twelfth year the Kumbh Mela is held, which has a special sanctity. Devout pilgrims proceed from here further up to Rishikesh, and to Badrinath. Pop. 58,513.

**Hirakud:** the site of the Rs. 30-crore multi-purpose project across the Mahanadi in Orissa. (See also under 'Irrigation'.)

Hyderabad-Secunderabad\*: the twin city linked together by the Hussain-Sagar (lake), is the capital of Andhra Pradesh and is centrally situated for all-India communications. It is a railway junction as well as an important air-port, and stands on the banks of the river Musi. It has many attractions. Char Minar (four minarets) dominates the City with 80 ft. high minarets, built in 1591; Osmania University with its impressive building and Ajanta Pavilion; Town Hall; State Museum and Art Gallery; Salarjung Museum—one of the richest and most varied collections in Asia; Health Museum and Public gardens. Golconda Fort forms one of the suburbs of Hyderabad. Many new industries are coming around the city. Pop. 12,51,119.

Imphal: north-east frontier town and capital of Manipur. It is celebrated for its handloom products. Pop. 67,717.

Jaipur: capital of Rajasthan, is a well laid-out modern city. Jaipur pottery, brass ware, sculpture, ivory and sandalwood work and jewellery have enjoyed a great reputation from ancient times. Pop. 4,03,444. Places worth a visit: 1. Maharaja's Palace, 2. Jai Singh's Observatory, 3. Amber (ancient capital), 4. Hawa Mahal, 5. Palace Armoury, 6. Cenotaphs of the Queens, 7. Galta (place of pilgrimage) and Ghat, 8. School of Arts, 9. Public Library, 10. Transport Gardens, 11. Museum.

Jaipur is on the metre-gauge line of the Western Railway between Ahmedabad and Delhi.

Jetsar: near Suratgarh, in Rajasthan, site of another mechanised farm about 30,000 acres.

<sup>\*</sup> Secunderabad is the headquarters of the South-Central Railway. Note: Pop. Figures are for 1961.

Jog Falls: also known as Gersoppa Falls in Mysore State, are one of the highest waterfalls in the world. The Sharavati takes a big leap down a steep rock from a height of 830 feet. The breadth of the stream here is 230 feet and in four separate cascades known as the Raja, Roarer, Rocket and the Lady, it takes a magnificent leap. The best time to see them is early December.

Junagadh: in Gujarat, is situated below the Girnar Hill and is one of the most ancient cities in India. The temples on the hill are noted for their architecture and delicate painting. On the way to Girnar is a rock with an Asoka edict. Pop. 74,298.

In Junagadh is the famous Gir Forest—the only place in Asia where lions are found.

Jwalamukhi: in the Kangra Hills where gas has been discovered. Drilling is in progress with Rumanian technical help. (See article on 'Petroleum'.)

Kangra Valley: famous for its picturesque landscapes and historic temples, lies in Himachal Pradesh. Semi-urban hill stations are Kangra and Dharamsala. Places worth a visit in Dharamsala are: 1. Bhagsunath Water Springs; 2. State Quarries; 3. Himalayan Snow View. The chief means of conveyance are cars and buses. There is also a dak bungalow at Dharamsala. To get to the Kangra Valley a visitor has to change at Pathankot into the narrow-gauge railway which runs to Nagrota. Dharamsala can also be reached from Pathankot by car.

Kanheri: near Bombay, is known for its Buddhist caves dating back to the 1st century A.D. It is about twenty miles from Bombay.

Kanya Kumari: in Tamil Nadu, is the southern-most tip of India. Here the Arabian Sea and the Bay of Bengal meet the Indian Ocean. A view of sun-rise and sun-set is rewarding.

It is within easy reach of Trivandrum.

The spot is sacred to the Hindus and a place of pilgrimage. A memorial to Swami Vivekanand is being created on the rock in the sea.

Kashmir: unsurpassed for the beauty of its mountains. lakes and valleys Kashmir is the northern tip of India. Its capital Srinagar on the Jhelum is 5,000 ft. above sea-level and known for its shawls and carpets and beautiful wood-work, rich embroidery and papier-mache articles. Its fruits and vegetables are equally well-known. Well-furnished, luxurious house-boats moored along the winding Jhelum or in the Dal Lake provide all necessary comforts amidst charming natural surroundings. The normal recreations include Shikara rides on the lakes and canals, mountain-climbing, big and small game hunting, golf, fishing and swimming. Gulmarg, Sonamarg and Pahalgam are holiday resorts in the neighbouring mountains and can be reached by motorable road. The road to Srinagar is via Pathankot and Jammu. There is a regular air service from Delhi to Srinagar. Places worth a visit: 1. The Moghul Gardens: a. Shalimar, b. Chashmashahi, c. Acchabal, d. Nishat; 2. The lakes: a. Dal Lake, b. Wulur Lake, c. Anchar Lake, d. Manasbal Lake and so on; 3. Historical and religious places: a. Martand temple. b. Pandranathan temple, c. Bhaumazu caves, d. Avanti Pura, e. Pari Mahal and f. Sankaracharya Hill.

Khajuraho: in Chhattarpur in Madhya Pradesh, is famous for its group of highly ornate mediaeval Hindu temples. From the nearest railway station Harpalpur on the Jhansi-Manikpur line, it is about 60 miles by motorable road. It has dak bungalows and circuit house rooms.

Kiriburu: iron ore mines, in the Bonai range of Keonjhar and Singhbhum districts being developed with USA's ADF and Japanese help.

Kirloskarvadi: in Maharashtra, is an industrial colony established over 50 years ago, where agricultural implements and a variety of engineering goods have been manufactured.

Kodaikanal: famous hill station on the Palni Hills in Tamil Nadu. It is about 7,000 feet above sea-level and has a temperate climate. The place affords plenty of scope for such recreations as walking, hiking, boating, fishing, hill climbing and golf. For the more adventurous there is big game hunting. Kodaikanal is the delight of the gardener and flowers are in bloom all the year round. Places worth a visit: 1. the lake skirted by a three-mile road; 2. the water falls like a Fairy Falls, b. Silver Cascades, c. Bear Shola Falls, d. Glen Falls, e. Pamber Falls; 3. There are view points like a. Coaker's Walk, b. Pillar Rocks, c. Prospect Point, d. Vambadi Shela Peak, e. Dolphin's Nose; 4. the Solar Observatory.

Konarak or Konark: in Orissa, is a huge Temple of the Sun also called the Black Pagoda. It is remarkable both as an example of ancient Indian architecture and sculpture and of engineering skill. Konarak is about 50 miles from Puri, 40 miles from Bhubaneshwar. The road is open from November to May.

Korba: in Madhya Pradesh is the site of a new coal mine and a thermal station from which the Bhilai Steel Project gets most of its power supply. Coal from Korba will also be used in Bhilai.

Koynanagar: in Satara district, Maharashtra, is 30 miles from Karad station on the Southern Railway. Here the turbulent waters of the Koyna are controlled and diverted through an underground tunnel on the other side of the hill for generating electricity.

Kulu Valley: well-known for the variety of its scenery, fruit orchards and places of historical interest is situated in Himachal Pradesh, north of Simla. It is ideal for hiking and trout fishing. The road runs from Pathankot or Nagrota the rail-heads into the valley. The summer is never uncomfortably hot. The main centres of the Kulu Valley are: 1. Kulu or Sultanpur, the principal town, about 4,000 feet above sea-level. It is the main shopping centre and has a dak bungalow, many rest-houses; 2. Raison, 8 miles from Sultanpur and 4,700 feet above sea-level. The available sports are golf, tennis and swimming. Mayflower and the Shacks are two hotels; 3. Katrain, is in the widest part of the Valley, 12 miles from Sultanpur and 4,800 feet above sea-level; 4. Naggar, summer headquarters, is 5,800 feet above sea-level; 5. Manali, the head of the valley and terminus of the motor road, is 23 miles from Sultanpur and is situated amid typical Alpine scenery. Accommodation is available at Sunshine Orchards, Departmental rest houses and Mission Hospital. Pathankot is the rail-head for Kulu. From Pathankot, Kulu is reached by bus or car, or from Pathankot to Nagrota by metre gauge railway and from there by bus to Kulu.

Lonavla-Khandala: in Maharashtra, lie in the heart of the Western Ghats. Hill forts associated with Maratha rule are in the vicinity. The Karla, Bhedsa and Bhaja caves, 10 miles from Lonavla, are an added attraction (see also under Poona District).

Lucknow: the city of gardens is the capital of U.P. It is well-known for its pottery, copper and brass-ware, wood and ivory carvings and gold and silver embroidery on cloth, and rich perfumes. Pop. 595,440. Places worth a

visit: 1. Great Imambara, 2. Small Imambara, 3. Tombs of Wajid Ali Shah and his Begum, 4. Kaiser Bagh Palace, 5. Chattar Manzil, 6. Dilkhusha Palace, 7. Moti Mahal, 8. Machi Bhavan Palace, 9. Jumma Masjid, 10. Charbagh, 11. Alambagh, 12. Sikander Bagh, 13. Musa Bagh, 14. Wingfield Park, 15. Residency, 16. Havelock's Tomb, 17. Clock Tower, 18. Museum, 19. Observatory, 20. Iron Bridge. Lucknow is a big junction on the Northern Railway.

Madras: the third largest city in the subcontinent and the capital of Tamil Nadu. Pop. 17,29,141. Places worth a visit: 1. Fort St. George (contains the oldest Protestant church in the country where Clive was married), 2. High Court, 3. Light House, from the top of which one can get a panoramic view of the city, 4. Marina, is one of the most beautiful promenades in the world, 5. the Museum, 6. Connemara Library, 7. the Zoo, 8. the Observatory, 9. Moore Market, 10. Parthasarathy Temple, 11. Mylapore Tank and Kapaleshwar Temple, 12. St. George's Cathedral. 13. St. Thomas Mount, 14. Race Course, 15. the Integral Coach Factory at Perambur, 16. Adyar, the headquarters of the Theosophical Society.

The seven Pagodas of Mahabalipuram are 35 miles by road from Madras and can also be reached by road from Chingleput Railway Junction.

Madurai: the second biggest city in Tamil Nadu, is a great religious centre, a seat of Tamil literature and Hindu temple art. The silk-weaving and textile industries of Madurai are also noteworthy. Places worth a visit: 1. The Great Temple, actually two temples of Meenakshi and Shiva, 2. Tirumala Nayak's Palace, 3. Gandhi Museum and Gandhigram. Pop. 4,24,810.

Mahabaleshwar: a hill station in Maharashtra. Can be reached from Poona by road.

(See under Satara District.)

Matheran: the nearest hill station to Bombay is 2,650 feet above sea-level. In a walk round the eighteen-mile circumference of the hill the visitor can reach 33 points of which the following deserve mention: 1. Garbut Point, 2. Panorama Point, 3. Porcupine Point, 4. Louisa Point, 5. Chowk Point, 6. Alexandra Point, 7. Belvedere Point, 8. Echo Point, 9. Monkey Point. At every one of these points the visitor will find comfortable seats, shady trees and fine views. Charlotte Lake, Paymaster Park, Band-stand, Castle Hill Tower, Race Course are other places of local interest.

Matheran is reached from Neral Station between Bombay and Poona. From Neral there is a light railway to Matheran. One can do the journey by rickshaw or pony.

Mathura-Brindavan: in U.P. is an important place of pilgrimage for Hindus, because of its associations with Shri Krishna. Near the railway station is Curzon Archaeological museum which houses unique relics of Kushan art. Six miles from Mathura is Brindavan. Places worth a visit: 1. Govind Dev Temple, 2. Gopinath Temple, 3. Ranganath Mandir.

There are travellers' bungalows. Brindavan is accessible by railway or road from Mathura. Pop. 125,258.

Mussoorie: A hill station in U.P. lies 18 miles from Dehra Dun. It is 6,580 feet above sea-level. The town has excellent water-supply, electric lighting system, hospitals, nursing homes and some of the best schools in India both for boys and girls. Places worth a visit: 1. The falls like a. Bhatta Falls, b. Kamptee Falls, c. Hearsay Falls, d. Mossy Falls, 2. Wimper's Tank, 3. Band-stand. Mussoorie is reached from Dehra Dun by car or bus and is about two hours' journey. Pop. 9,849.

Mysore (City): second city in the State. It attracts great crowds twice a year namely the Maharaja's birthday and the Dasarrah. Places worth a visit: 1. The palace of Maharaja and Jaganmohan Palace and so on, 2. Chamundi Hill, 3. Zoological Gardens, 4. Silk Factory, 5. Sandalwood Factory, 6. Krishnarajasagar Dam and the Brindavan Gardens, about 12 miles from Mysore. Pop. 2,53,865.

Nagarjunasagar: See under VIJAYAPURI.

Naini Tal: hill station in U.P. is about 6,350 feet above sea level. Among the principal recreations are hiking, boating and yachting on the lake around which the town stands, and fishing and riding. Places worth a visit: 1. Cheena Peak, 2. Land's End, 3. Lariya Kanta Peak, 4. Sher-ka-Danda Peak, 5. Tiffin Top or Dorothy Seat, 6. Camel's Peak or Deopatta Peak. Naini Tal is 22 miles from Kathgodam railway station which is connected with Bareilly and Mathura. From Kathgodam one goes by bus or car to Naini Tal which is 22 miles away. Pop. 14,995.

Nalanda: in Bihar, approachable from Patna by rail or motor, contains a group of ruined Buddhist temples and monasteries and a small local museum. It was the seat of an ancient university where Chinese and Korean Students had studied.

Nasik: in Maharashtra and 117 miles from Bombay on the Central Railway, is a place of pilgrimage for Hindus and is famous for Buddhist rock-cut temples of the first century B.C. and later. Pop. 1,31,103. The golf links at near-by Deolali are an added attraction.

Nepanagar: in M.P. is the site of the only newsprint factory in India. (See also 'Government Industrial Undertakings'.)

Neyveli: in South Arcot District, in Tamil Nadu, about 150 miles from Madras, is the site of lignite mines, a great thermal power house and centre of industrial development.

Ogalewadi: near Karad, near the confluence of the Krishna and the Koyna (Dist. Satara).

Ogalewadi is the glass-town founded by one of the pioneering industrialists, Mr. Ogale. The activities include enamelling, making of hurricane lanterns, safety stoves and electrical equipment.

Ootacamund: hill station in Tamil Nadu, stands 7,500 feet above sea-level on the Nilgiris. Places worth a visit: 1. Botanical Gardens, 2. Race Course, 3. Assembly Room, 4. Dodda Betta, the highest peak in the Nilgiris, 5. Pykara Hydro-Electric Dam which is about 18 miles from Ootacamund. Ootacamund is the terminus of the Nilgiri mountain railway and 6. Kundah Hydro-electric Scheme which includes many lakes, dams and power houses. Pop. 50,140.

Pachmarhi: hill station, was summer capital of Madhya Pradesh, lies on the Mahadeo hills of the Satpura Range and is about 3,500 feet above sea-level. Places worth a visit: 1. Bee Dam, 2. Mahadeo Caves, 3. Dhupgarh, highest point in the Satpuras, 4. Dorothy Deep Falls, 5. Duchess Falls, 6. Lansdowne Hill, 7. Nilphur Springs, 8. Waters Meet, 9. Big Falls, 10. Pansy Pool, 11. Twipram Pool, 12. Saunder's Pool, 13. Pandava Caves. Pachmarhi is reached from Pipariya Station on the Central Railway between Bombay and Jabalpur. From Pipariya, Pachmarhi is 32 miles. There are facilities for swimming, trekking and riding. Pop. 653.

Pandharpur: town in Sholapur District in Maharashtra. It stands on the Bhima and is one of the most frequented places of pilgrimage in Maharashtra. The centre

of devotion is the temple dedicated to Vithoba, an incarnation of Vishnu. Fairs are held annually. Pop. 45,421.

**Perambur:** a suburb of Madras where an integral railway coach factory is situated.

Pimpri: near Poona, is the place where the Hindustan Antibiotics factory is located. It manufactures penicillin. (See also under 'Government Industrial Undertakings'.)

Pipri: in Mirzapur District in U.P. is the site of the Rs. 46-crore Rihand dam across the Rihand, for the generation of power and for irrigation.

Poona: in Maharashtra and 120 miles from Bombay, with historical buildings is the educational and cultural centre of Maharashtra. Places worth a visit are: Shanwar Wada, the National Chemical Laboratory, the Defence Academy and the Central Water and Power Research Station at Khadakvasla. Other show-places near Poona are: Sinhagad and Purandar. The Bhandarkar Oriental Research Institute and the Poona University, Gokhale Institute of Politics and Economics and many research institutes are worth a visit. Population 7,21,896.

Porbandar: in Gujarat, is the birth-place of Mahatma Gandhi and an attractive summer resort. Pop. 75,081.

Prabhas Patan: in Gujarat, is the site of the famous Somnath Temple, which was destroyed and rebuilt several times.

Puri: (Jagannath Puri): Jagannath Puri is a temple town in Orissa. The Jagannath temple is a great Vaishnavite Centre of pilgrimage. Fifty miles from Puri is Konarak, the Sun Temple. Pop. 60,815.

Rameshwaram: this holy town in Tamil Nadu is built on an island in the Palk Straits. It contains one of India's most venerated temples, perhaps the finest example of South Indian architecture. It is in the form of a quadrangular enclosure 650 ft. by 1,000 ft. The temple is renowned for its vast pillared corridors nearly 4,000 ft. long. It is near the tip of the Indian peninsula. Pop. 6,801.

Ranchi: hill station and summer resort of Bihar, noted for its picturesque scenery and fine roads. It is the site of Heavy Machine Building Plants and headquarters of Hindustan Steel Ltd. Pop. 1,40,253‡.

Rourkela: in Orissa about 250 miles from Calcutta on the main line to Nagpur, is the site of an Iron and Steel Plant in the public sector set up with German help. In addition, a special fertilizer plant has also been erected here.

Sanchi: small village near Bhopal in Madhya Pradesh, famous for the Buddhist stupa which is the largest and the best preserved in India.

Santiniketan: in West Bengal, is the home of the Visva Bharati, the international university founded by Rabindranath Tagore. Places worth a visit are: Rabindra Bhavan (the poet's residence) where his personal belongings, manuscripts, etc. are on display and the poet's mud hut where he wrote many of his books.

The place is 91 miles from Calcutta on the Eastern Railway and 2 miles from Bolpur Station.

Seringapatam: or Srirangapattana in Mysore State, 9 miles by road from Mysore city was the capital of Tipu Sultan. It is situated on an island on the Kaveri. It has the Sultan's fort, mosque and palaces. There are also many old temples. Pop. 11,423.

Sevagram: near Wardha in Maharashtra is the village where Mahatma Gandhi founded his ashram. It has been the home of many Gandhian institutions.

Shatrunjaya Hills: Shatrunjaya, near Palitana in Saurashtra, is also known to the Jains as Siddhagiri or

† Including Poona Cantt. & Kirkee Cantt. ‡ Including Dorenda.

Siddhachala or the Hill of the Perfected Ones. It is a sacred place (tirtha) of Shvetambara Jains. There are a great number of temples in groups on tonks or summits.

Shillong: is the capital of Assam, Thirty-six miles from here is Cherrapunji, the wettest place in the world. Pop. 72,438.

Simla: the summer capital of British Government of India and the Government of the Punjab,\* is situated on a spur of the Himalayas at a height of 7,200 feet. Places worth a visit: 1. President's House, 2 Race Course, 3. Jakko Hill, 4. Observatory Hill, 5. Prospect Hill, and 6. Mashora-Mahasu, seven miles away. All through the scenery is superb, with mountain peaks or luxuriant foliage. Simla is now the capital of Himachal Pradesh. Pop. 42,597.

Sindri: the site of the big fertilizer plant in Bihar.

Somnath: see under Prabhas Patan.

Sravanabelgola: in Mysore State, is noted for its Jain temples and the colossal statue of Gomatesvara which is 65 ft. high, the tallest monolithic in the world. It was erected in 983 A.D.

Suratgarh: in Rajasthan is the largest single mechanised agricultural farm (30,000 acres) utilising complete set of machinery and equipment presented by U.S.S.R.

Tanjore: in the delta of the Cauvery river in Tamil Nadu is noted for its temples and palaces. It was the capital of the Cholas. Places worth a visit: 1. Brihadishvara temple built by Raja-Raja the great, 2. Naik's Court, 3. Maratha Court (the two together are often called the Palace in Tanjore). Pop. 1,11,099.

Udaipur: in Rajasthan, is a city of lakes with island palaces. Seventy miles from Udaipur is Chittorgarh, the abandoned capital of Mewar and its Tower of Victory. Pop. 1,11,139.

Ujjain: on the Sipra in Madhya Pradesh, is one of the seven cities sacred to the Hindus. Also known as Avanti. The Oriental Museum has many valuable manuscripts and pieces of sculpture. Is supposed to be the seat of King Vikrama. Mahakaleshwar temple is an attraction of pilgrimage. Pop. 1,44,161.

Vallabh Vidyanagar: near Anand (Dist. Kaira) is the seat of Sardar Vallabhbhai Patel University, with arts & science, engineering, agricultural, teachers' training colleges on the extensive campus. Some industrial units (prestressed concrete, electrical wire) are also working in the vicinity. The township is on an ideally laid out plan. A railway (Western) station with the same name is nearby; but Anand is more convenient for this University town.

Vijayapuri (East & West): on either side of the Nagarjunasagar dam across the Krishna, 90 miles from Hyderabad.

The great Buddhist sage and philosopher Nagarjunacharya lived and taught here. The University was known as Nagarjunkonda. Extensive excavations have brought to light important pieces of sculpture, housed in a big museum nearby.

Walchandnagar: In Poona district, is an industrial colony, with extensive cane cultivation on mechanised scale, sugar and alcohol production, huge workshop for manufacturing sugar making machinery, plastic buttons and dairy products.

### HOTELS

List of some leading Western style hotels:

AGRA: Hotel Clarks Shiraz, 54, Taj Road; Lauries Hotel, Mahatma Gandhi Road, Agra Cantt.; Grand Hotel, 137, Station Road, Agra Cantt.

Note: Population figures are for 1961. \* Chandigrarh is now the

AHMEDABAD: Cama Hotel, Khanpur Road; Hotel Alankar, Opp. Rly. Station; Hotel Capital, Chandanwadi, Mirzapur.

ALLAHABAD: Barnetts Hotel, 14, Mahatma Gandhi Road.

AMRITSAR: Hotel Airlines, Cooper Road.

AURANGABAD: Aurangabad Hotel.

BANGALORE: Hotel Bangalore International, 2A-2B, Crescent Road, High Grounds; West End Hotel; Shilton Hotel, St. Mark's Road; Madras Woodlands Hotel, 5, Sampangy Tank Road.

BOMBAY: Taj Mahal Hotel, Apollo Bunder; Sun-N-Sand, 39, Juhu Beach; Ambassador Hotel, Churchgate Extension; Hotel Natraj, 135, Netaji Subhash Road; Ritz Hotel, 199, Churchgate Reclamation; West End Hotel, 45, Marine Lines; Shalimar Hotel, Cumballa Hill; Grand Hotel, Ballard Estate; Airlines Hotel, 199, Churchgate Reclamation; Hotel Palace Ajanta, 8, Juhu Tara Road; Astoria Hotel, Churchgate Reclamation; South End Hotel, 11, Juhu Tara Road.

CALCUTTA: Oberoi Grand, 15, Jawaharlal Nehru Road; Great Eastern Hotel, 1, 2, & 3, Old Court House Street; Park Hotel, 17, Park Street; Spences Hotel, 4, Wellesley Place; Hotel Majestic, 4/C, Madan Street; New Kenilworth Hotel, 1 & 2, Little Russel Street.

CALICUT: Alkapuri Guest House, Jail Road.

CHANDIGARH: Hotel Oberoi, Mount View, Sector 10. COCHIN: Sea Lord Hotel, Shanmugham Road, Ernakulam; Casino Hotel, Wellingdon Island.

COIMBATORE: Hotel Alankar, Ram Nagar; Hotel Guru, Raja Street.

COONOOR: Ritz Hotel; Hotel Hampton.

DALHOUSIE: Grand View Hotel.

DARJEELING: Oberoi Mount Everest, 15, Gandhi Road; Windamere Hotel, Observatory Hill.

DELHI/NEW DELHI: Hotel Oberoi Intercontinental, Wellesley Road; Ashoka Hotel, 50-B, Chanakyapuri; Claridges Hotel, 12, Aurangzeb Road; Hotel Imperial, Janpath; Hotel Ambassador, Sujan Singh Park; Hotel Rajdoot, Mathura Road; Hotel Vikram, Ring Road; Hotel Oberoi Maidens, 7, Alipur Road; Hotel Janpath, Janpath; Hotel Ranjit, Maharaja Ranjit Singh Road; Lodhi Hotel, Lala Lajpat Rai Marg.

GOA: Hotel Mandovi, Panaji; Hotel Solmar, Avenida Gaspar Dias, Panaji; Hotel Neptune, A/Kadar Manzil,

GULMARG: Nedous Hotel.

HYDERABAD/SECUNDERABAD: Ritz Hotel, Hill Fort Palace, Hyderabad; Percy's Hotel, Sardar Patel Road, Secunderabad.

JABALPUR: Jackson's Hotel, Civil Lines.

JAIPUR: Rambagh Palace; Jai Mahal Palace Hotel, Civil Lines; Rajasthan State Hotel, Mirza Ismail Road, Khasa Kothi; LMB Hotel, Johari Bazar.

KODAIKANAL: Carlton Hotel.

LUCKNOW: Carlton Hotel, Shahnajaf Road.

MADRAS: Connemara Hotel, Binny's Road; Hotel Dasaprakash, 50, Poonamallee High Road; Hotel Victoria, Egmore; Hotel Imperial, 3, Whannels Road, Egmore; Hotel Ashoka, 22, Panthreon Road; Woodlands Hotel, 1/23, Edward Élliots Road; Hotel Oceanic, 70, San Thome High Road, Kilpauk; Hotel Swagath, 183/1, Royapettah High Road, Royapettah; Gupta's Ajanta Hotel, Royapettah High Road.

MANGALORE: Moti Mahal, Falnir Road.

MADURAI: Pandyan Hotel, Race Course.

MATHERAN: Lord's Central Hotel, Via Neral; Cecil Hotel, Via Neral.

MOUNT ABU: Palace Hotel, Bikaner Palace.

MUSSORIE: Savoy Hotel; Hakman's Grand Hotel; Hotel Roan Oke.

MYSORE: Hotel Krishnarajsagar, Krishnaraj Sagar; Hotel Dasaprakash, Gandhi Square.

NAINITAL: Swiss Hotel; Grand Hotel; Hotel Metropole.

OOTACAMUND: Savoy Hotel; Hotel Dasaprakash.

PATNA: Hotel Republic, Lawlys Building, Exhibition Road; Palace Hotel, Gandhi Maidan.

POONA: Hotel Gulmohar, 15-A/1, Connaught Road; Wellesley Hotel, 12-A, Connaught Road.

PURI: South Eastern Railway Hotel.

RANCHI: South Eastern Railway Hotel.

SHILLONG: Pinewood Hotel.

SIMLA: Hotel Oberoi Cecil, The Mall; Hotel Oberoi Clarkes, The Mall.

SRINAGAR: Hotel Oberoi Palace; Nedous' Hotel, Hotel Road, Post Box 15.

TRIVANDRUM: Mascot Hotel.

UDAIPUR : Lake Palace Hotel ; Garden Hotel ; Rajasthan State Hotel.

VARANASI: Clarks Hotel, The Mall.

WALTAIR (VISAKHAPATNAM): Sun-N-Sea, Beach Road, Vlsakhapatnam.

Besides the hotels in different places there are tourist bungalows in Bijapur, Bhubaneshwar, Gaya, Khajuraho, Konarak, Madurai, Mahabalipuram, Mandu, and Tanjore.

#### **TOURIST TRAFFIC\***

FOREIGN TOURIST ARRIVALS IN INDIA-1968

(These statistics relate to foreign tourists excluding nationals of Pakistan).

A total of 188,820 foreign tourists visited India during 1968 showing an increase of  $5 \cdot 2$  per cent over the corresponding figure for 1967 (179,565), which recorded an increase of  $12 \cdot 5$  per cent over 1966.

North America: Canada 3,575; U.S.A. 41,721.

South America: Mexico 688; Others 1,717.

Western Europe: Austria 1,143; Benelux 3,098; France 8,786; Germany 9,862; Italy 2,740; Scandinavia 3,792; Spain 629; Switzerland 3,251; U.K. 29,821; Others 882.

Eastern Europe: Czechoslovakia 854; U.S.S.R. 2,057; Others 2,321.

Africa: Kenya 2,254; Malawi 107; South Africa, R. of 1,554; Tanzania 1,733; Uganda 1,063; Others 1,891.

West Asia: Aden 248; Persian Gulf countries 3,067; Iran 1,175; Others 2,458.

East Asia: Afghanistan 3,112; Ceylon 19,899; Japan 6,024; Malaysia 8,032; Philippines 822; Thailand 1,384; Others 7,327.

Australasia: Australia 8,322; New Zealand 1,234; Others 177.

### DEVELOPMENT OF TOURISM

The Third Plan for development of tourism included an allocation of Rs. 8 crores—Rs. 3·5 crores in the Central Sector and Rs. 4·5 crores in the State Sector.

<sup>\*</sup> During 1969, a total of 2.45 lakh tourists arrived in India and India earned Rs. 33.11 crores from tourism as against Rs. 26.42 crores in 1968.

The Government of India has set up the India Tourism Development Corporation in the public sector for promoting tourism and providing facilities for tourist traffic in the country. For more details about the corporations see article on "All India Corporations".

Fourth Plan: A sum of Rs. 25 crores has been allocated for the development of tourism in the Fourth Plan. Of

this Rs. 10·77 crores have been set apart for India Tourism Hotel Corporation Schemes and Rs. 5 crores for Hotel Development Loan Fund.

The India Tourism Development Corporation has opened "Duty Free Shops" at Bombay, Delhi and Calcutta. A fourth shop is proposed to be opened at Madras. A duty-free shop is a tourist facility provided by many countries at international airports.

## **DEFENCE SERVICES**

Chief of the Army Staff, General S. H. F. J. Manekshaw.

Chief of the Naval Staff, Admiral S. M. Nanda.

Chief of the Air Staff, Air Chief Marshal P. C. Lal.

THE supreme command of all the Armed Forces of the Indian Republic is vested in the President. The Ministry of Defence has become the central agency for formulating and obtaining policy decisions of the Government of India on defence matters and for transmitting them to, and seeing to their implementation by the three Defence Services Headquarters.

The total defence outlay on revenue and capital account for 1969-70 is estimated at Rs. 1,183·20 crores as against the revised estimates of Rs. 1,051·38 crores during 1968-69.

### **DEFENCE ORGANISATION**

Each Service has been placed under a separate and independent head, namely the Chief of the Army Staff, Chief of the Naval Staff and Chief of the Air Staff.

The task of co-ordination of the activities of the three Services has devolved on the Defence Ministry for which a net work of committees has been established at different levels.

At the top is the Defence Committee of the Cabinet. All important policy questions relating to defence are decided by this Committee, which is presided over by the Prime Minister.

The Defence Minister is responsible to Parliament for all matters relating to the Defence Services, including appropriation and allotment of funds, correlation of all civil and ministerial activities for purposes of defence and control and direction of research policy.

The Ministry of Defence is responsible for work connected with the three Services and Inter-Service Organisations, the Department of Defence Production, the Department of Defence Supplies, the Research and Development Organisation and the Border Roads Development Board.

There are a number of Inter-Services organisations, directly administered by the Defence Ministry, dealing with matters of common concern to the three Services. Some of them are the National Cadet Corps, the National Defence College, the Defence Services Staff College, the National Defence Academy, the School of Foreign Languages, the Directorate-General of Armed Forces Medical Services, the Resettlement Directorate, the Indian Soldiers', Sailors' and Airmen's Board, the Combined Inter-Services Historical Section, the Directorate of Military Lands and Cantonments, the Joint Cipher Bureau and the Directorate of Public Relations.

There is a separate Department of Defence Production in the Defence Ministry to direct, co-ordinate and strengthen the production base for building a sound defence system. A Research and Development Council with the Defence Minister as Chairman, formulate defence science programmes. Apart from the Defence Minister, the other members of the Council are the Minister of State in the Ministry of Defence (Vice-Chairman), the Defence Secretary, the Secretary for Defence Production, the Scientific Adviser to the Defence Minister, the Director-General of C.S.I.R., the Chiefs of Staff of the Army, Navy and Air Force, the Director-General of Armed Forces Medical Services, the Financial Adviser (Defence), the Chief Controller of Research and Development and the

Director-General of Inspection. The Council has under it

the Defence Research and Development Organisation, headed by the Scientific Adviser, who is assisted by the Chief Controller and the Chief Scientist.

The Defence Minister's Production Committee forms part of the higher defence control evolving a co-ordinated policy in regard to the manufacture of military stores and equipment. It has under it the Department of Defence Production, for the overall production effort for meeting the requirements of the Services by the maximum utilisation of the existing capacity and creating additional capacity in the Ordnance Factories. The Director-General of Ordnance Factories, the six public sector undertakings and two departmental undertakings come under the Department of Defence Production. The Directorate-General of Inspection is responsible for the inspection of all stores for which orders are placed with the Ordnance Factories, other defence and public undertakings and private trade.

### RESEARCH & DEVELOPMENT

The Research and Development Organisation which is closely associated with the Production Organisation includes technical establishments dealing with weapons, ammunition, military explosives, metallurgy, electronics and optical instruments. Whereas research is carried on in the laboratories, development work is concentrated at the various technical establishments scattered all over the country.

The Institute of Armament Technology provides facilities for a comprehensive scientific study and research in the performance of weapons and equipment.

There are at present about 30 establishments, major and minor, under the R. and D. Organisation, catering to the needs of the Armed Forces. Among the new research units are the Institute of Nuclear Medicine, the Institute of Physiology, the Food Research Laboratory, the Solid State Physics Laboratory, the Electronics Research Laboratory and the Institute of Work Study.

A Psychological Research Directorate of the Science Organisation conducts research in the assessment of human personality so that the right type of officers may be selected for the Armed Forces. There are two major electronic Development Establishments in the country dealing with communication equipment, tele-communication line equipment and radars. A beginning has been made on a third establishment for the development of missiles.

A Defence Science Service has been instituted to include all civilian scientists engaged in research, development, inspection or teaching in any of the three Services or in the Ministry of Defence.

Theoretical training for the engineering profession to those already receiving practical training, is now being given at defence installations in practically all parts of the country to prepare students for the Associate Membership examinations of the Institution of Engineers (India), the Institution of Tele-Communication Engineers and the Aeronautical Society of India.

The Defence Production Board has been set up to examine and recommend to Government plans for defence production, production of new items and stock-piling of raw materials.

### ORDNANCE FACTORIES

The Production Organisation which has under it 26 Ordnance Factories, is so designed as to achieve self-sufficiency in respect of stores required by the three Services and has made continuous efforts to establish production of items hitherto imported.

The Ordnance Cable Factory for the manufacture of field cables for the Army started functioning in September 1963, the New Explosives Factory — in December 1964. The Heavy Vehicles (Tank) Factory has gone into production. The first Indian-made medium tank, 'Vijayanta' rolled out of the factory on Dec. 29, 1965. Regular production has been established in the factory. Of the five more Ordnance Factories to be set up, the Small Arms Ammunition Factory, went into production in Oct. 1964, with U.S. aid, much ahead of schedule. Another factory the Ordnance Factory, Tiruchirapalli was inaugurated by the Prime Minister on July 3, 1966. Two other new factories have been set up.

Apart from substantially augmenting the manufacture of established armaments and equipment, the Ordnance Factories took up the production of several new items during 1963-64. Significant amongst these are a 7-62 m.m. semi-automatic Ishapore rifle and its ammunition, a new heavy mortar with a longer range and its ammunition, new types of tank ammunition, new anti-tank ammunition, an anti-aircraft gun and its ammunition, improved carbines to replace sten-guns, and modified light machineguns and bolt-action rifles to take the new rimless 7-62 ammunition.

A light mountain gun, with a higher range, has been successfully developed and its production started. A new plant has been set up at the Cordite Factory for the manufacture of semi-solvent propellants for rockets and commissioned, and so also a plant at another Ordnance Factory for a new type of ammunition for the Air Force.

To ease the transport problems of the Army, about 9,500 three-ton Shaktiman trucks, with an indigenous content of about 76 per cent had been manufactured in the Ordnance Factories by the end of Feb. 1969. In addition, 19,667 one-ton Nissan carriers and 6,536 Nissan jeeps, with an indigenous content now of 45.46 and 33.2 per cent respectively, have rolled out of the assembly lines so far.

The production of conventional arms, snow and ski equipment, winter and cotton clothing supply-dropping

parachutes, line-gear and saddlery items has also been greatly stepped up.

Over the years, the value of production in the Ordnance Factories has jumped from about Rs. 5 crores in 1947-48 to an estimated Rs. 108 crores in 1968-69.

### HINDUSTAN AERONAUTICS LIMITED

(See under article "Government Industrial Undertakings").

#### A.M.D. AND A.I.L.

The Aircraft Manufacturing Depot, set up at Kanpur in 1960 under the Air Force for the manufacture of the Avro-748—a medium twin-engined, turbo-prop, pressurised and air-conditioned transport aircraft, capable of short take-offs and landings, with ability to operate from unprepared surfaces—was in 1963 made a departmental undertaking under the direct control of the Department of Defence Production.

This factory has so far (Dec. 1969) delivered a number of aircraft to the I.A.F. and eight to I.A.C. against the orders of fourteen for its internal services.

The Aeronautics (India), Ltd., was registered in Delhi in August 1963 to undertake the manufacture, under a licence agreement with the Government of the U.S.S.R., of a modified, single-engined MIG-21 supersonic fighter aircraft, complete in all respects.

Substantial progress has been made in the establishment of the M.I.G. factories at Nasik, Koraput and Hyderabad. The production of M.I.Gs. is going on according to schedule. The last phase of production from raw material has started. The aircraft manufactured in the first two phases have been delivered.

To streamline aircraft manufacturing industry in the country, all the existing units have been brought under the unified control of Hindustan Aeronautics Ltd. (HAL).

### BHARAT ELECTRONICS LTD.

(See under article "Government Industrial Undertakings").

### SHIP-BUILDING AND REPAIRS

The Production Organisation has also under it the Mazagon Dock, Ltd., Bombay,† and the Garden Reach Workshop, Ltd., Calcutta.† While these shipyards continue to carry out refits and repairs of commercial ships, they also do so for naval ships.

The Hindustan Aeronautics Ltd., The Bharat Electronics Ltd., Bangalore, the Praga Tools Ltd., Secunderabad and the Bharat Earth Movers Ltd., Bangalore, are the other public sector undertakings under the Department of Defence Production in the Ministry of Defence. Crawler-Tractor assembled by BEML rolled out recently.

## NATIONAL CADET CORPS

Aim: (1) to develop character, comradeship, ideal of service and capacity for leadership in young men and women, (2) to stimulate interest among youth in the defence of the country, and (3) to build up a reserve of manpower to enable the Armed Forces to expand rapidly in a national emergency. The organisation is, thus, mainly of an educational and nation-building character. Officers and cadets have no liability for active military services.

A certain percentage of the total intake of candidates for commissioned ranks in the Army, Navy and Air Force, on the basis of direct entry to the Armed Forces training institutions, has been reserved for N.C.C. cadets of the three Services.

<sup>†</sup> See under article "Government Industrial Undertakings" for more details.

The N.C.C. consists of three divisions: (1) Junior, (2) Senior and (3) Girls'.

### TRAINING INSTITUTIONS

The important training institutions common to the three Services are given below:

National Defence College, New Delhi: Trains senior officers of the three Services on the pattern of the Imperial Defence College in the U.K. Its main purpose is to enable students to study the military, scientific, industrial, social, economic and political factors involved in war as also the higher direction and strategy of warfare.

Defence Services Staff College: The Defence Services Staff College is located in Wellington in the Nilgiri Hills in South India. One hundred officers drawn from all the three Services, including six officers from the U.S.A. and Commonwealth countries are trained every year. The aim of the course is to prepare officers to hold second-grade or equivalent staff appointments or higher staff or command appointments.

National Defence Academy, Khadakvasla: Army, Navy, and Air Force cadets receive three years' combined basic training.

Rashtriya Indian Military College, Dehra Dun: Brings up future officers of the three Services by imparting preliminary pre-cadet training to such pupils as desired subsequently to choose a military career.

School of Foreign Languages, New Delhi: Meets the growing demand for qualified linguists. It also conducts examinations in various Indian languages for service personnel.

Armed Forces Medical College, Poona: Is designed to meet the requirements of the integrated medical services of the Army, Navy and Air Force.

Military Schools: Located at Bangalore, Ajmer, Chail, Belgaum and Dholpur. These Military Schools provide public-school education for the children of serving personnel. Children of civilians are also admitted now.

Sainik Schools: There are at present 15 Sainik Schools located in the States of Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Madhya Pradesh, Tamil Nadu, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal, imparting middle and secondary school public education with a military bias.

### ARMED FORCES MEDICAL SERVICES

The Directorate General of the Armed Forces Medical Services is the head of the integrated medical services of the Army, the Navy and the Air Force. The D.G.A. F.M.S. is the chairman of the Medical Services Advisory Committee with the Directors of Medical Services of the Army, the Navy and the Air Force as members. The committee makes recommendations to Government through the Chiefs of Staff Committee on matters of medical organisation or policy.

The Directorate has under it the Armed Forces Medical College and the Artificial Limb Centre, Poona.

#### RESETTLEMENT DIRECTORATE

The Directorate-General of Resettlement in the Defence Ministry deals with matters relating to the rehabilitation of ex-Servicemen in civil life.

In the matter of employment, the Government have accorded preference to ex-Servicemen in filling up appointments in police, excise, watch and ward and other departments for which military training is a qualification.

### SOLDIERS', SAILORS' AND AIRMEN'S BOARD

The Indian Soldiers', Sailors' and Airmen's Board, New Delhi, is the most important official institution connected with the welfare of serving personnel of the Armed Forces and ex-Servicemen and their families.

#### GALLANTRY AWARDS

The Param Vir Chakra is awarded for most conspicuous bravery, or some daring or pre-eminent act of valour or self-sacrifice whether on land, at sea or in the air. It ranks first among all awards.

The Maha Vir Chakra is awarded for conspicuous acts of gallantry whether on land, at sea or in the air.

The Vir Chakra is awarded for acts of gallantry whether on land, at sea or in the air.

Ashok Chakra is awarded for most conspicuous bravery, or some daring or pre-eminent act of valour or self-sacrifice. Kirti Chakra is awarded for conspicuous gallantry and Shaurya Chakra for gallantry.

A system of Mention-in-Despatches was also instituted. A 'lotus leaf' emblem is worn by the awardees on the ribbon of the campaign/war medal concerned.

#### NEW SERVICE MEDALS

Param Vishisht Seva Medal, Ati Vishisht Seva Medal and Vishisht Seva Medal respectively are awarded to personnel of all the three Services in recognition of distinguished service of the "most exceptional", an "exceptional" and a "high" order respectively. Sainya Seva Medal to all Service personnel in recognition of non-operational duties under conditions of hardship and severe climate, and the Videsh Seva Medal to all ranks of the Armed Forces for duties outside India. The Army, Navy and Air Force medals are awarded in recognition of such individual acts of exceptional devotion to duty or courage as have special significance for the Service concerned.

Two new Medals are Samar Seva Star and Raksha Medal.

### INDIAN ARMY

Army H.Q.: The Head of the organisation located in New Delhi, is the Chief of the Army Staff. He is assisted by the Vice-Chief of the Army Staff and four other Principal Staff Officers (the Deputy Chief of the Army Staff, the Adjutant General, the Quartermaster General, the Master General of the Ordnance) and two Heads of Branches (the Military Secretary and the Engineer-in-Chief).

Under the Army H.Q., the Indian Army is organised into four Commands—Eastern, Western, Southern and Central, each being under a General Officer Commanding-in-Chief of the rank of Lieutenant-General. The Commands are divided into Areas, each under the command of a G.O.C. of the rank of Major-General. The Areas, in their turn, are sub-divided into Sub-Areas each under the command of a Brigadier.

Mobile formations are the Corps, Divisions, Brigade group, Independent Brigade and Brigades. Two or-more Divisions or a combination of Divisions, Brigade Groups and Independent Brigades are constituted into a Corps under a Corps Commander of the rank of Lt. General, who functions under the control of the Army Commander.

The Army consists of a number of arms and services. They are Infantry, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals, Army Service Corps, Army Ordnance Corps, Army Medical Corps, Army Dental Corps, Corps of Electrical and Mechanical Engineers, Army Education Corps, Remounts, Veterinary Corps, Corps of Military Police, Intelligence Corps and Defence Security Corps.

### TERRITORIAL ARMY

The Territorial Army is an auxiliary force to the regular Army and is the second line of Defence. This force consists of citizens who follow their normal avocations and receive military training in their spare time, and undergo active military service when embodied.

Territorial Army officers have been made eligible for promotion to the acting rank of Brigadier, against a specific vacancy, on completion of 20 years of service.

The role of the Territorial Army is to

- (i) relieve the Regular Army of static duties and support civil power if required,
- (ii) provide coastal defence and anti-aircraft units,
- (iii) provide units for the Regular Army if and when required.

No officer or enrolled person is required to perform military service beyond the limits of India, save under a general or special order of the Central Government.

### TRAINING INSTITUTIONS

Recruitment for the permanent cadre of commissioned ranks in the Army is done through the National Defence Academy, Khadakvasla, and the Indian Military Academy, Dehra Dun. After completion of their three-year course at the N.D.A., Army cadets have to spend another one year at the Military Academy before being commissioned. Direct admission to the Academy at higher age-levels also continues, though the number of cadets so taken is limited.

There is an Officers' Training School at Madras to train emergency commission candidates for the Army. The school is now designed to run courses for short service regular commissions.

The various ranks in the Army from the top downwards are: General, Lieutenant-General, Major-General, Brigadier, Colonel, Lieutenant-Colonel, Major, Captain, Lieutenant, Second Lieutenant, Subedar-Major/Risaldar-Major, Subedar/Risaldar, Naik Subedar Dafadar, Havildar, Naik, Lance-Naik and Sepoy/Sowar.

### INDIAN NAVY

The Indian Navy is controlled both administratively and operationally from Naval HQ in New Delhi through a chain of commands.

At the Naval HQ the Chief of the Naval Staff is assisted in his task by five Principal Staff Officers, namely the Vice-Chief of the Naval Staff, the Chief of Personnel, the Chief of Logistics, the Chief of Material and the Assistant Chief of the Naval Staff.

The Naval HQ exercises control over the Navy through the following commands:

1. Western Naval Command—under the Flag Officer, Commanding-in-Chief, Western Naval Command, Bombay; 2. Eastern Naval Command—under the Flag Officer, Commanding in Chief, Eastern Naval Command, Visakhapatnam; 3. Southern Naval Area—under the Commodore Commanding, Southern Naval Area, Cochin. The Flag Officer Commanding, Western Naval Fleet (previously called the Flag Officer Commanding, Indian Fleet is now operationally and administratively responsible to the Flag Officer, Commanding-in-Chief, West.

Today, the Indian Fleet consists of I.N.S. VIKRANT (Flagship of the Navy), an aircraft-carrier, I.N.S. MYSORE, a Colony-class cruiser, I.N.S. DELHI, a Leander-class cruiser, two Destroyer Squadrons (I.N.S. RANJIT, RAJPUT, RANA, GODAVARI, GOMATI and

GANGA) and a number of Frigate Squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates, submarines, submarine depot ship and patrol boats. These new types of frigates, specially constructed for the Navy in the U.K. are I.N.S. BRAHMA-PUTRA, BEAS, BETWA, KHUKRI, KIRPAN, KUTHAR, TALWAR, and TRISHUL. The former frigates are I.N.S. CAUVERY, KISTNA, and TIR, which are now being used for cadets' training. The three Mine-sweeping Squadrons are formed by I.N.S. KONKAN, KARWAR, KAKINADA, CANNANORE, CUDDA-LORE, BASSEIN and BIMLIPATAM.

In addition, the Fleet has some survey ships, a tanker and some auxiliary craft. The survey unit of the Navy, which now comprises I.N.S. INVESTIGATOR, JUMNA, SUTLEJ and DARSHAK, carries out the necessary survey of India's coast and approaches to harbours. I.N.S. DARSHAK of 2,750 tons displacement is the first naval ship built in India.

A Resident Naval Officers' Organisation I.N.S. JARAWA has been set up at Port Blair with the necessary transport and communication facilities.

It is proposed to develop a naval base and dockyard at Visakhapatnam. It has also been decided to develop Mormugao as a naval base; it was formally commissioned in March 1964 as I.N.S. GOMANTAK. The base includes I.N.S. HANSA the Naval Air Station at Dabolim, where facilities for the operation of jet aircraft are being developed.

#### NAVAL AVIATION

The Naval Air Arm, which is one of the youngest branches of the Navy, came into being in 1948 for training aircrew, followed soon after by the setting up of a Naval Air Station at Cochin. Later, the formation of a Fleet Requirements Unit was approved, aircraft, equipment and spares acquired and officers and ratings deputed for training courses abroad.

A Naval Air Training School has been set up at Cochin to train ratings in the maintenance and repair of aircraft. At the same time, the Government are considering setting up a School for Naval Airmen for training non-technical personnel.

#### TRAINING ESTABLISHMENTS

The training of other naval personnel is carried out in the shore establishments of I.N.S. VENDURUTHY, Cochin, I.N.S. CIRCARS, Visakhapatnam, I.N.S. ANGRE, Bombay, I.N.S. KUNJALI, Bombay, I.N.S. SHIVAJI, Lonavla, I.N.S. VALSURA, Jamnagar, and I.N.S. HAMLA, Bombay. I.N.H.S. ASVINI at Bombay, I.N.H.S. SANJIVANI at Cochin, I.N.H.S. KALYANI at Visakhapatnam and the recently commissioned I.N.H.S. JEE-VANTI at Goa are the four naval hospitals.

The various ranks in the Navy from the top downwards are: Admiral, Vice-Admiral, Rear-Admiral, Commodore, Captain, Commander, Lieute-Commander, Lieutenant, Sub-Lieutenant, Midshipman, Master Chief Petty Officer Class I & II, Chief Petty Officer, Petty Officer, Leading Rate, Seaman I Rate and Seaman II Rate.

#### INDIAN AIR FORCE

The Air HQ is divided into three main branches — Air Branch, which deals with operations, training, policy and plans, signals, reserves and intelligence, Administration Branch and Maintenance Branch. Each is under a Branch P.S.O. who, in turn, has several Directorates under him.

There are three Operational Commands of the Air Force with headquarters at Palam, Allahabad and Shillong, respectively known as Western, Central and Eastern Air Commands. The Maintenance Command is at Nagpur, while the Training Command is located at Bangalore.

The Operational Commands control all flying units—fighter, bomber, reconnaissance and air-transport squadrons. The Training Command has under its control training schools and colleges for both officers and airmen for technical and non-technical ground training and for aircrew flying training. The Maintenance Command controls all technical and equipment units in the Air Force. All the five Commands are headed by Air Officers Commanding-in-Chief. The A.O.C.S.-in-C. of Western Air Command and Eastern Air Command hold the rank of Air Marshal. The other three are in the rank of Air Vice-Marshal.

The different types of aircraft used by the Air Force are: Training: HT-2, Harvard, Vampire and Dakota.

Fighter: Vampire, Mystere, Hunter, Gnat, MIG-21 and

HF 24.

Transport: Dakota, Devon, Fairchild-Packet, Otter, Ilyushin, 14, Caribou, AN-12 Super Constellations TU-124, HS-748 and M1-4, Bell and Alouette 3 Helicopters.

Bomber: Canberra.

Reconnaissance: Liberator and Canberra.

#### TRAINING ESTABLISHMENTS

The Air Force Flying College at Jodhpur is the nursery of pilots, navigators and air-signallers. Advance flying training to aircrew is provided at Hyderabad and Bangalore. The Jet Training Wing at Hakimpet provides training facilities for fighter pilots whilst the transport crew are trained at the Transport Training Wing at Yelahanka

near Bangalore. On successful completion of their oneyear training at Jodhpur, pupil aircrew have to undergo a year's training at Hakimpet or Begumpet before being awarded their wings and commissioned.

The Air Force Administrative College at Coimbatore trains officers of the ground duty branches. The Air Force Technical College at Jalahalli, near Bangalore, imparts training to engineering officers and technical airmen of certain advanced signals trades. The No. 1 Ground Training School at Jalahalli trains non-technical airmen. The No. 2 Ground Training School at Tambaram (Madras) trains technical tradesmen (airmen). The No. 3 Ground Training School at Jalahalli is intended for airmen trainees of higher signals trades.

An Institute of Land/Air Warfare has been set up at Secunderabad to train Army and Air Force officers in the doctrine and planning of joint operations by air and ground forces, namely close air support, air transport support and air defence.

The School of Aviation Medicine, in Bangalore runs courses for the training of medical officers and airmen in the science of aviation medicine.

The I.A.F. Paratroopers' Training School at Agra, continues to train paratroopers for the Army personnel for the I.A.F. Para-Medical Flights and instructors for the School itself.

The various ranks in the Air Force from the top downwards are: Air Chief Marshal, Air Marshal, Air Vice-Marshal, Air Commodore, Group Captain, Wing Commander, Squadron Leader, Flight Lieutenant, Flying Officer, Pilot Officer, Master Warrant Officer, Warrant Officer, Flight Sergeant, Sergeant, Corporal, Leading Aircraftsman, Aircraftsman Class I. All the squadrons have now been number plated.

## INSURANCE

### PUBLIC AND PRIVATE INSURANCE SECTORS

CINCE Sept. 1, 1956, when the L.I.C. of India was Destablished, life insurance business in India is transacted by this Corporation and, in a restricted sphere, by the Posts & Telegraphs Department of the Govt. of India and by the State Governments of Andhra Pradesh, Jammu & Kashmir, Kerala, Madhya Pradesh, Mysore, Rajasthan and Uttar Pradesh who carry on compulsory life insurance of their employees only. Fire, Marine & Miscellaneous classes of insurance business are transacted both by the Indian insurance companies and by foreign insurance companies operating in India. In addition, the L.I.C. and certain State Governments are also transacting such business. The Government of Gujarat and Maharashtra insure all types of their property in their commercial and industrial undertakings. Kerala State is transacting fire and motor insurance business and Mysore State motor insurance business only.

In addition to the L.I.C. the Central Government has established two other Corporations in the insurance Sphere—Employees' State Insurance Corporation and Export Credit and Guarantee Corporation. The former conducts compulsory health insurance of workers and their families in specified industrial concerns. The latter covers marine and commercial risks for exporters in India, other than those risks normally covered by private insurers in India.

#### LIFE INSURANCE

The Life Insurance Corporation of India did a new

total business\* of about Rs. 929 crores sum assured under 14.54 lakh policies during the 12 months ended 31st March, 1969. Of this, foreign business was Rs. 8.70 crores. During the previous period of 12 months ended 31st March 1968, the total business secured was about Rs. 844 crores under 14.28 lakh policies, of which foreign business was Rs. 9.07 crores.

The Corporation has a network of offices all over the country to procure new business and for servicing the existing business. There are 5 Zonal Offices, one each in Bombay, Madras, Kanpur, Calcutta, Delhi and the Central Office at Bombay. There are 36 Divisional Offices, and 679 Branches, Sub-offices and Development Centres i.e., 721 offices in all.

The Corporation also transacts business in the following foreign countries with 2 Divisional Offices and 11 Branch Offices: Aden, Fiji, Hong Kong, Malaysia, Singapore, Kenya, Mauritius, Uganda and the United Kingdom.

### 1968-69 REPORT

At the end of the 12 months accounting period ended 31st March, 1969, the total business other than in Pakistan in the books of the Corporation including bonuses, stood at Rs. 5,725 crores under 134.53 lakh policies. Of this, Rs. 5,606 crores under 133.45 lakh policies represented life insurance business in India. In addition, there were 11,438 life annuity policies under which annuities of Rs. 3.88 crores were payable each year.

<sup>\*</sup> The total business completed by the Corporation, including foreign business, during the first seven months of 1969-70 amounted to Rs. 369 69 crores, involving 5,45,041 policies against Rs. 341 71 crores involving 5,65,042 policies during the same period in 1968-69. The total new business completed by L.I.C. during the period April 1969 to January 1970 was of the order of Rs. 663 50 crores involving 9,65,405 policies against Rs. 630 58 crores involving 10,34,046 policies during April 1968 to March 1969.

The following table gives the life assurance business in force at the end of each of the last four accounting periods:—

Business in force as at		1	ь	n India	Outsi	de India		Total
			No. of policies (lakhs)	Sum assured and bonuses (Rs. crores)	No. of policies (lakhs)	Sum assured and bonuses (Rs. crores)	No. of Sum assured and bonuses (lakhs) (Rs. crores)	
31-3-1966 31-3-1967 31-3-1968 31-3-1969	****		114·10 119·98 126·43 133·45	4,282 4,593 5,116 5,606	1·79 1·24 1·16 1·08	112 131 124 119	115·89 121·22 127·59 134·53	4,394 4,724 5,240 5,725

During the accounting period the Corporation completed a new business of Rs. 929·35 crores sum assured under 14,54,298 policies. Business completed in the previous accounting period amounted to Rs. 844·47 crores under 14,28,043 policies.

About 32.9 per cent of the total number of policies in India assuring about 25.5 per cent of the total new sums assured in India, were issued in rural areas as defined in the 1961 Census. About 45.8 per cent of the policies or 22.6 per cent of the new sums assured in India were issued under the non-medical schemes. In addition to the total new business stated above, the Corporation issued 952 Deferred Annuities and 72 Immediate Annuities with a total annual payment of Rs. 21.71 lakhs and Rs. 2.79 lakhs respectively. Further, under Group and Superannuation Schemes, it granted Annuities of Rs. 62.65 lakhs per annum.

#### New Business:

In In	ndia	Outside India		
No. of policies	Sum Assured Crores of Rs.	No. of policies	Sum Assured Crores of Rs.	
 15,54,758 14,06,033 14,23,380	789·29 757·94 835·40	6,445 5,887 4,663	8·50 12·33 9·07 8·70	
	No. of policies	No. of policies Sum Assured Crores of Rs.  15,54,758 789 · 29 14,06,033 757 · 94 14,23,380 835 · 40 14,50,095 920 · 65	No. of policies         Sum Assured Crores of Rs.         No. of policies            15,54,758         789·29         6,445            14,06,033         757·94         5,887            14,23,380         835·40         4,663            14,50,095         920·65         4,203	

A marked variation is noticeable in the size of the average policy sold in the different Zones by the Corporation. The figures are given below (Rs.):

Northern Zone (Delhi): 7,600; Central Zone (Kanpur): 6,520; Western Zone (Bombay): 7,295; Eastern Zone (Calcutta): 5,927; Southern Zone (Madras): 5,335; In India: 6,349; Foreign: 20,700; All business: 6,390 as against 5,913 in the period 1-4-1967 to 31-3-1968.

### **ACCOUNTS**

The Life Fund stood at Rs. 1,434·47 crores on 31st March, 1969, registering an increase of about Rs. 174·41 crores over the life fund of Rs. 1,260·06 crores as on 31st March 1968. During this period, the Corporation's income from all sources totalled about Rs. 316 crores, made up of Rs. 235 crores from premiums and about Rs. 81 crores from returns on its invested funds and from miscellaneous

The interest income of Rs. 71.5 crores represents earnings of 5.31% on the mean life fund after deducting income-tax. The rate per cent of interest from 1965-66 is given below:

1965-66: 4.76; 1966-67: 5.29; 1967-68: 5.18; 1968-69: 5.31. The gross rate of interest earned on the mean life fund during the year was 5.94 per cent per annum as against 5.88 per cent per annum for the previous year.

On the outgo side Rs. 78 crores represented claims and other benefits to the policy-holders, Rs. 65 crores expenses of management, Rs. 9 crores income-tax, Rs. 2 crores miscellaneous expenses, the balance of nearly Rs. 173 crores addition to the Life Fund. On the claims side, nearly Rs. 17 crores represented claims by death and nearly

Rs. 52 crores by maturity, annuities, surrender and bonuses in cash etc., accounting for the balance.

Overall expenses ratio: 1965-66: 27.6%; 1966-67: 27.7%; 1967-68: 27.5%; 1968-69: 27.5%.

The renewal expense ratio in terms of Rule 25(b) of Insurance Rules 1939 was 15.91% as against 15.90% for the previous year ended 31st March, 1968, once again exceeding the statutory limit of 15%.

### **INVESTMENTS**

The total investments pertaining to life business as at 31st March 1969 amounted to Rs. 1,348.87 crores of which Rs. 24.71 crores were out of India. The break-up of Indian investments is as follows:

nvestments is as follows.	
Indian and State Government and other approved securities Debentures and shares of Joint stock	Rs. 740 · 23 crores
companies in India Loans to Housing Schemes—State	Rs. 210·39 ,,
Governments and Cooperative	
Finance	Rs. 154.20 ,,
Mortgages of Properties	Rs. 28.38 ,,
House Property	Rs. 36.53 ,,
Due from State Governments for	
controlled business taken over	Rs. 3.22 ,,
Other Loans etc	Rs. 149·23 ,,
Share in Initial Capital of Unit Trust	
of India	Rs. 0.75 ,,
Carried Continue and Carried State (Continue Continue Continue Continue Continue Continue Continue Continue Co	7 000 00
$\mathrm{Rs}.$	1,322.93 crores

In addition, investments pertaining to the General Insurance Business (including Capital Redemption and Annuity Certain) was Rs. 10·08 crores.

On 31st March 1969, the Corporation held stock exchange securities aggregating nearly Rs. 974 crores, of which about Rs. 951 crores were in India and the balance outside India.

A broad classification of investments in India shows that 73.6% was invested in the public sector, and 17.8% in the private sector and 8.6% in the co-operative sector. Besides the loans issued by the Central and State Governments, investments in the public sector include loans, bonds, shares or debentures of municipalities, Improvement Trusts, Port Trusts, Land Mortgage Banks, State Financial Corporations and Statutory Corporations. Investments in the private sector take the form of debentures, preference shares and ordinary shares of industrial and commercial undertakings.

Debentures, preference and ordinary shares of joint stock companies held by the Corporation may be classified as under according to the character of the industries (Rs. lakhs):

Aluminium: 755·12; Banks: 731·41; Cement: 1075·04; Coal: 381·99; Cotton Textiles: 2374·10; Dyes, Chemicals and Pharmaceuticals: 701·74; Electricity: 1540·45; Electrical Goods: 1056·63; Engineering: 3974·42; Food, Drinks and Tobacco: 187·12; Insurance: 244·51; Investment Trusts: 257·34; Iron and Steel: 1735·30; Jute: 566·98; Managing Agents: 140·83; Matches: 84·91; Mining: 80·76; Mineral Oil: 809·29; Paper and Board 786·78; Plantations: 285·19; Railways: 70·65; Rubber Products: 486·76; Shipping and Transport: 83·76; Sugar and Breweries: 728·77; Textiles (other than Cotton): 633·58; Vegetable Oils: 197·86; Cooperative Housing Societies: 23·54; Miscellaneous: 1043·73. Total: Rs. 21,038·56 lakhs.

### Underwriting New Capital Issues

During the accounting year ended 31st March, 1969, the L.I.C. underwrote 95 new issues to the extent of Rs. 3,483·80 lakhs, comprising Debentures of Rs. 3,267·80 lakhs, Preference Shares Rs. 100·00 lakhs and Ordinary Shares Rs. 107·00 lakhs. Of these, 76 issues were placed in the market during the period, in addition to 27 issues placed in the previous year with allotments of Rs. 2981·80 lakhs against Rs. 3225·74 lakhs underwritten and Rs. 3220·74 lakhs applied for.

### PERSONNEL

On 31st March, 1969, there were 51,667 employees of whom 2,978 were officers, 8,134 Development Officers, 33,602 supervisory and clerical staff and 6,953 subordinate staff. The total monthly salary bill in March, 1969 was Rs. 255·85 lakhs.

Out of over 1.54 lakh agents on the books on 31st March 1969, about 1.37 lakhs were active.

The average production per active agent during the accounting period was Rs. 67,115 as against Rs. 57,883 during the previous year.

### **VALUATION & BONUS**

Six biennial valuations were made till March 1967. The seventh valuation was made as at 31st March 1969, covering the biennium 1st April 1967 to 31st March 1969. The total distributable surplus shown was Rs. 95·05 crores. Out of this Rs. 90·30 crores were allocated to the participating policies and Rs. 4·75 crores to the Central Government as its share. In respect of the policies issued by the L.I.C. itself, the rate of reversionary bonus allotted was Rs. 22·00 per thousand sum assured per annum for

whole life policies and Rs. 17.60 for endowment assurance policies. The corresponding rates of bonus at the previous valuation were Rs. 20.00 per thousand sum assured per annum and Rs. 16.00 per thousand sum assured per annum respectively. The policies issued by the erstwhile insurers were allotted bonuses at different rates as per the scheme of differential bonuses approved by the Government.

### GENERAL INSURANCE

As on 31st December 1968 there were 129 (as against 132 in 1967) companies registered under the Insurance Act, 1938 to transact one or more classes of general insurance business of which 72 were Indian and 57 non-Indian. One I idian and two non-Indian insurers ceased to operate in 1968. The number of Indian insurers excludes the Life Insurance Corporation of India (which is registered for Life and Miscellaneous insurance business) but includes its three (since amalgamated into one on 1st January 1961) subsidiaries which conduct general insurance business. It also includes 11 insurers registered for Country Craft (marine) insurance business only with 6 non-tariff offices and three doing only reinsurance business, one of which is a subsidiary of the L.I.C.

Of the 57 non-Indian offices, 34 have their head-offices in the U.K.

During the year ended 31st March 1969, the L.I.C. secured a gross direct premium of Rs. 16·19 crores as against Rs. 12·62 crores in the previous year. The breakdown thereof is Rs. 3·89 crores under Fire, Rs. 6·84 crores under Marine and Rs. 5·47 crores under Miscellaneous insurance classes. The total net premium amounted to Rs. 5·71 crores. The net claims were Rs. 99·00 lakhs, Rs. 150·91 lakhs and Rs. 96·94 lakhs in Fire, Marine and Miscellaneous insurance respectively. The net underwriting profits were Rs. 135·30 lakhs.

The total income and outgo in respect of the general insurance business of Indian insurers (excluding the Life Insurance Corporation of India) during 1967 is analysed below:

Partic	Rs. lakh				
Income	STREET.		M. S.		
Premiums less reins	urance	8:			
		India itside I	ndia		50,17 31,27
Net interest, divide	nds an	d rents			1,85
Other income					14
Total					83,43
Outgo					
Claims less reinsura	nces				42,88
Net commission					13,73
Expenses of manage	ement			Y-10-	16,62
Miscellaneous outgo					69
Total			• • •		73,92
Profits transferred Account	l to	Profit	and	Loss	2,38
Actual increase in risks and Addition			unex	pired	7,13
Excess of Income of	ver Ou	itgo			9,51

The percentage of the net premium income of Indian Insurers (including L.I.C. of India) and of Non-Indian Insurers, spent by way of claims expenses, etc., during the year 1967 is shown in the following table:—

		F	ire	Marine Miscella		laneous	
Ratio to Net Premium Income of	Overelo T	Indian Insurers	Non- Indian Insurers	Indian Insurers	Non- Indian Insurers	Indian Insurers	Non- Indian Insurers
Net Claims		39.6	30.3	77.5	69.4	56.2	52.9
Expenses of Management commission	including	39:5 5:5 -1:0 16:4	$ \begin{array}{r} 41 \cdot 2 \\ 7 \cdot 3 \\ -0 \cdot 2 \\ 21 \cdot 4 \end{array} $	22·0 10·3 -3·2 -6·6	35·4 6·4 0·6 —11·8	36·6 4·1 —1·6 4·7	41·6 4·5 0·3 0·7
TOTAL		100.0	100.0	100.0	100.0	100.0	100.0

<sup>•</sup> Increase in Reserves is obtained by taking 40 per cent in the case of Fire and Miscellaneous and 50 per cent in the case of Marine insurance business of the increase in net premium income during the year 1967 over that of the preceding year.

The following tables present a comparative study of the insurance business in India and outside India of Indian insurers (including L.I.C. of India) and of the business in India of non-Indian insurers.

(Premiums in lakhs of rupees)

				Fire Pre	miums	Marine Pr	remiums		Miscellaneous Premiums		Total	
		Year			Gross	Net	Gross	Net	Gross	Net	Gross	Net
	T.	INDIAN	TNIS	UREI	28		Business in .	India				
1965	1.				17,42	13,07	10,99	7,28 8,20	23,50 26,31	20,71 22,79	51,92 59,38	41,06 46,91
1966 1967	•		:		20,01 24,17	15,92 18,93	13,06 16,87	10,48	30,60	25,03	71,64	54,44
1001			8 100			Ra	siness outsid	le India				
1965 1966 1967			•		1,66 2,24 2,79	8,77 12,17 13,63	1,64 1,81 1,91	2,91 4,29 5,23	7,10 9,88 11,41	7,07 10,85 12,50	10,40 13,93 16,11	18,75 27,31 31,36
1907					SURERS		Business in	India				
1965 1966 1967	II. 	NON-II	 	N IN	7,83 8,83 10,18	4,71 5,56 6,81	4,37 4,99 5,63	2,95 3,20 3,67	5,38 5,79 6,19	4,29 4,75 5,35	17,58 19,61 22,00	11,95 13,51 15,82

### **ASSETS**

The total assets of the general insurance business of Indian insurers (excluding L.I.C. of India) amounted to Rs. 1,45,50 lakhs on 31st December 1967 (as against Rs. 1,31,94 lakhs on 31st Dec. 1966).

The total assets in India in respect of the general insurance business of the non-Indian insurers amounted to Rs. 22,64 lakhs on 31st December 1967 as against Rs. 22,64 lakhs on 31st December 1966.

The following table gives the index numbers of general insurance business in India (including that of L.I.C.) and the general index numbers of industrial production (base year 1960) for the years 1960 to 1967. Comparison of these figures will indicate the potentiality for progress of general insurance business in India and the actual progress made by this business.

	1960	1961	1962	1963	1964	1965	1966	1967
Index no. of general insurance business in India	100.0	111·9 109·2	124·2 119·7	135·5 129·7	140·5 140·9	147·2 153·7	147·1 152·4	151·3 151·6
General Index no. of industrial p		TOPY	THE STATE OF	The state of	The state of the s	(in	lakhs of	rupees)

Miscel-Total Marine Year Fire laneous 3,50 4,52 7,35 Profit in respect of gross direct business in India of all insurers 1967 6,06 -1051,70 5,35 Profit in respect of total net business of Indian insurers 1967 1,09 Profit in respect of net business in India of Non-Indian insurers - 43 1,47 1967 Profit in respect of gross direct business outside India of Indian 94 - 38 - 50 1967 - 6 3,59 -1.31Gain on account of reinsurances abroad—[(2)+(3)-(1)-(4)]-5351967 \_\_ 47

Note: Unexpired risk reserves have been taken at 40% of the premium income for Fire and Miscellaneous and 50% of the premium income for Marine insurance business.

### REINSURANCE

To minimise the drain on account of reinsurance transactions abroad, the Insurance Act, 1938 was amended, early in 1961, by inserting Part IVA Reinsurance, Sections 101A and 101B. Section 101A provides that every insurance company operating in India must reinsure a certain percentage of its business (not exceeding 30%) with Indian reinsurance companies approved in this behalf by the Central Government namely, India Reinsurance Corporation Ltd., and Indian Guarantee and General Insurance Co. Ltd., both having their registered offices in Bombay and the latter being a subsidiary of the LIC of India.

Mainly due to heavy Marine claims recovered from abroad, insurers have been gaining on account of reinsurances placed abroad since last three years.

#### Social Control on General Insurance

Government of India has passed a Bill, in the November 1968 session of the Parliament, amending the existing laws governing general insurance to bring them in line with the scheme for social control. The Bill has been signed by the President and has come into force as Insurance (Amendment) Act, 1968, on 1st June 1969.

## FOOD

ROM the point of view of food generally the position is roughly as follows: Surplus areas: Madhya Pradesh, Punjab, Haryana, Orissa, Andhra. Self-sufficient areas: U.P., Rajasthan, Tamil Nadu, Mysore, Assam. Deficit areas: Maharashtra, Gujarat, Himachal Pradesh, Bihar, West Bengal, Kerala, Kashmir, Tripura. Manipur is marginal.

Total Internal Procurement and Issue of Foodgrains.

The areas covered by the Punjab, Haryana and Madhya Pradesh (former Vindhya Pradesh) are generally surplus in wheat.

The areas covered by the following States are generally surplus in rice: Orissa, Madhya Pradesh, Andhra, Punjab.

### **PRODUCTION**

(See under main article "Agriculture")

('000 met. tonnes)

Calendar Year				Procured by			Issued through		
			State	Centre	Total	State	Centre	Total	
1966	1	160	The No.	3,279	730	4,009	9,580	4,505	14,085
1967				3,461	1,001	4,462	9,423	3,743	13,166
1968			100	3,610	3,172	6,872	7,020	3,534	10,554

### SUPPLY

The demand and supply of cereals from 1966-1968:

('000 met. tonnes)

		1966	1967	1968
Procurement			IN THE RESIDENCE OF THE	
Opening	States Centre Total	3,279	3,461	3,610
Stocks in		730	1,070	3,172
Godowns		4,009	4,462	6,872
Offtake	States	9,580	9,423	7,020
from Go-	Centre	4,505	3,743	3,534
downs	Total	14,085	13,166	10,554

The balance sheet of foodgrains distributed by Governments during 1966, 1967 and 1968 was as follows:

('000 met. tonnes)

	1966	1967	1968
Opening Stock with	V A BOOK	The state of	1000
States	973	1,332	1,421
Centre	1,106	884	557
Procurement	4,031	4.009	4,962
Imports	10,358	8,672	5,694
Stocks with States at			0,002
the end of the year	1,332	1,421	1.897
Central Reserves at the			2,00.
end of the year	884	551	1,918

At the end of 1968, the number of fair-price shops and ration shops in the country stood at 136,000 as against 142,000 functioning at the end of 1967. The total population covered under statutory rationing at the end of 1968

was about 25.4 mill. and under informal rationing 233.2 mill. making a total of 258.6 million as against 277 million at the end of 1967.

During 1967-68 procurement of rice and paddy (both on Central and State Govt. accounts) amounted to 32·59 lakh tons as against 24·69 lakh tons in 1966-67. The purchase of wheat by Central and State Govts. during 1968-69 amounted to 17·77 lakh tons which was 14·90 lakh tons more than of 1967-68. In addition over 45,000 tons of coarse grains (millets, maize and barley) and pulses were purchased in 1967-68 as against over 9 lakh tons in 1966-67.

### IMPORTS (1966-68)

The imports over the years were as follows:

Figures in million tons and value in Rs. Crores respectively are: 1966: 10·358, 523·13; 1967: 8·67, 460·00. In 1968 the imports amounted to 5·6936 (consisting of 0·4463 m. tonnes of rice, 4·7654 m. tonnes of wheat and wheat products and 0·4819 m. tonnes of mile valued at about Rs. 361 crores.

初了八张 淮州 从私来 · · ·

FOOD 21

The imports of individual grains were as follows:

(in million metric tonnes)

		1966	1967	1968
Rice	• •	0.7866	0.4527	0.4463
Wheat (including flour)		7-833	6.4001	4.7654
Others		1.738	1.8188	0.4819

Countries from which imports were obtained from 1966 to 1968 with quantity (in million metric tons) were as follows:

				Quantity	
Country			1966	1967	1968
U.S.A			8 • 326	6.275	4.3833
Australia			0.295	0.830	0.2338
Canada	2.4		0.909	0.862	0.6302
U.A.R	100	100000	0.051	0.094	0.0824
Burma			0.393	0.147	0.1087
Others			0.384	0.464	0.2552
TOTAL			10.358	8.672	5.6936
ALL THE STATE OF T					

Countries from which wheat and rice were imported during the year 1968: (quantity in million metric tonnes)

			Wheat and flour		Rice	
U.S.A.					3.9014	0.003
Australia		-			0.2338	Harrie III
Burma	To Their	Service Control				0.1087
Canada	100				0.6302	
Cambodia						0.0063
Philippines						0.0188
Thailand	-			150		0.2307
U.A.R.						0.0824
Others			No.			0.209
Others		44 3000		HOT WITH		
		7	OTAL		4.7654	0.6589

### SEED

The Govt. of India has set up in 1963 a Central/National Seed Corporation to promote the production of improved seeds in the country by financial aid, technical guidance, organising marketing agencies and sponsoring training programmes in collaboration with Central and State Governments and other interests. The Seed Act of 1966 was enforced from 1969 and roles of different agencies in seed production and distribution are defined therein. Production and supply of registered/certified seeds would be the responsibility of State Governments who would get it done through registered seed growers. National Seed Corporation would be responsible for the supply of national foundation seeds, while State Governments would be responsible for local/regional varieties. The World Bank has now agreed to finance the Terai Seed Development Project (for multiplication of high yielding varieties) in 16,200 hactares and producing 56,000 tonnes of seeds per annum. (See under All-India Corporations for more details).

## FERTILIZERS & MANURES

India's requirement of nitrogen fertilizer is placed at between 2 and 2.5 million tons. Minimum requirement would probably be estimated at 1.5 million tons on the basis of 30 lbs. per acre.

It is estimated that the use of one ton of fertilizer on an area of 75 acres results in an extra 10-ton production of foodgrain.

### Consumption of Fertilizers

(million tonnes)

1966–67 1967–68 1968–69 (Operational target)

Plant Food	Consu			
Nitrogen	0.738	1.035	1.4	2.0
Phosphoric Acid	0.250	0.335	0.4	0.65
Potash	0.114	0.170	0.18	0.30

The night soil compost scheme, which has now been introduced in Tamil Nadu, Rajasthan, Punjab, Orissa and Mysore, will cover 500 bigger panchayats, for which Central assistance has been given at the rate of Rs. 2,000 per panchayat.

A total number of 2,250 urban centres was also engaged in night soil compost production in the States.

### Urban and Rural Compost

Quantity (mill. tonnes)

Year	Urban	Rural
1966–67	3.70	122.00
1967-68	 3.9	122 • 63
1968-69 (Expected)	 4.0	143.68

Distribution of green manure seeds in parcels is encouraged in most States. A subsidy of Rs. 2 per maund is given to the State for multiplying green manuring seed. The coverage under green manuring during 1967–68 was estimated at 7·23 million hectares, while the anticipated coverage in 1968–69 is 8·46 million hectares. As against 54,000 tractors in use in 1965–66 the numbers went up during 1967–68 to 80,000 and were expected to be 90,000 in 1968–69. Power tillers have also become popular during recent times. The Government are therefore importing 15,000 tractors and 4,000 power tillers; also 75 combined harvestors and 50 reapers.

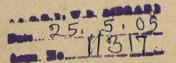
### Mechanisation and Mechanised Farms

With a view to increasing mechanisation in agriculture the production of wheel type tractors has been stepped up. Wheeled tractors between 20 and 50 H.P. range are being manufactured by 5 manufacturing units with an installed capacity of 30,000 units per year.

There are already two Central Mechanised farms at Surat and Jelsar. Fifteen more such farms are going to be set up with the help of U.S.S.R., one in each State. The farm in Orissa was started at Hirakud in 1967 and in Haryana (Hissar) and Punjab (Jullundur) in 1968. Mysore farm is getting operated soon, while in Kerala site has been selected. It is proposed to set up a State Farm Corporation to manage these farms with an authorised capital of Rs. 7 crores and a paid up capital of Rs. 3 crores (inclusive of present assets of the farm).

### THE FOOD PROBLEM

The per capita consumption in India of all food items i terms of calories compares as follows:—Canada: 3,140



U.S.A.: 3,150; U.K.: 3,270; Japan: 2,110; and India: 1,880.

The problem can be summed up in some such way as follows:—

The consumption of food grains and pulses in India has been increasing over the last three years faster than production.

The increase in population of about 12 million persons per year in itself will require one million tons of additional food grains each year. With an increase of the per capita intake of 100 calories per day, India would require an additional five million tons foodgrains per year.

Following are the Agreements signed for the import of foodgrains during 1968-69.

(Quantity in million tonnes)

Countries	Nature and date of agreement		Rice	Wheat
Argentina	Gift Find Aid Government of ICA (Gift) (ICA ICA)	(le sale)		0.005
Surma	Food Aid Convention of 16A (Gift) (18-10-'68) Commercial (6-9-'68 and 5-2-'69)		0.205	0.07
anada	International Food Aid Programme (Gift) (7-6-'68) and Canadian Aid (Gift) (27-2-'68)	}	North Tolerand	0.659
	Commercial (April/June '68)			0.104
hailand J.A.R.	Commercial (18-6-'68 and 23-7-'68) Commercial (18-2-'69)		0·120 0·060	$H \cap H$
J.K.	Food Aid Convention of 16A (Gift) (6-3-'69)		- 0.000	0.118
J.S.A.	PL480 (23-12-'68) Commercial (July/Oct. '68)		<u> </u>	$2 \cdot 300 \\ 0 \cdot 209$
Australia	Terret seem from the control of			
Cambodia Philippines	Commercial through private parties		0.171	200 U.S.
Thailand J.A.R.	]			

#### Buffer Stock

In view of the bright prospect of foodgrains production it is proposed to build a buffer stock of three million tonnes of foodgrains. The Central and State reserves of foodgrains at the end of 1968 stood at 3·8 m. tonnes of which 2·8 m. tonnes were treated as buffer stock. The stock was augmented in subsequent months standing at 4·5 m. tonnes and will be further increased in later months. Five million tonnes of buffer stock is proposed to be built up in the Fourth Five Year Plan.

Distribution of foodgrains from Government stocks channelled through 136,000 fair price/ration shops.

The total population covered under statutory rationing at the end of 1968 was about 25.4 million and under informal rationing 233.2 million making a total of 258.6 million.

Rationing: The principle of statutory rationing has been accepted by all States. It was decided in Aug. 1965 that in cities of one million population, later modified into one lakh and above, rationing should be introduced. In Kerala informal rationing was introduced from Nov. 1, 1964; Greater Calcutta throughout 1965 (extended to Asansol, Durgapur, Siliguri industrial complex from Feb. 1966), Madras and Coimbatore (Oct. 1965), Delhi (Dec. 8, 1965), Hyderabad, Secunderabad & Vishakapatnam (Feb. 1966) and Kanpur Feb. 16, 1966.

With the improvement of supplies statutory rationing was discontinued in Siliguri (from 1st Jan. 1968) and Kanpur (mid Jan. 1968). In Delhi also movement of rice and wheat from the rural areas and their sale in the open market in the rationed areas have been permitted with effect from Feb. 21, 1968. Statutory rationing has been discontinued in Madras and Coimbatore from Jan. 14, 1970.

### Distribution (1966-68)

(million tonnes)

Year	Rice	Wheat	Other grains	Total
1966	 1.514	8 • 275	1.692	11-481
1967	 1.131	6.993	1.944	10.075
1968	 1.269	5.666	0.690	7.625

### WAREHOUSES

The Central Warehousing Corporation has set up 77 Central Warehouses (upto the end of 1967) with a capacity of 2,71,397 tonnes in 16 States. The State Warehouses during the time were 615 with a total capacity of 8,72,070. In addition special warehouses (on guarantee basis) were set up in Maharashtra with a total capacity of over 50,000 tonnes and by Food Corporation (in Andhra and Tamil Nadu for over 4,80,000 tonnes capacity).

As many as 80 types of commodities are now stored in the warehouses including foodgrains, oilseeds, cattle fodder, raw cotton, cotton seed, raw jute, turmeric, gur, ginger, pepper, cardamom, coffee seeds, chicory, fertilizers and food products.

#### Food Corporation

The Food Corporation was set up as a statutory body in Jan. 1965 to function in the long term comprehensive strategy for solving the food problem. The Corporation is now functioning in all the States except Maharashtra, Jammu and Kashmir and Nagaland. During 1967-68 it purchased 4·1 million tonnes of food grains besides 23,000 tonnes of groundnut oil. It purchased up to 1969 end about 1·03 million tonnes of rice, 88,600 tonnes of maize and 26,900 tonnes of Jowar. It is going to instal 24 modern rice mills, (two of which were already working

FOOD 23

in 1968) for better extraction of rice from paddy. It will also set up a maize drier at Khanna in Punjab. The storage capacity at the end of 1968 was about 1·7 million tonnes In addition, it hired accommodation for 1·44 million tonnes besides space for 0·95 million tonnes from Central and State warehousing corporations. The quantity of foodgrains handled by it rose from 3·908 million tonnes costing Rs. 241·87 crores during 1966-67 to 5·858 million tonnes costing Rs. 438 crores during 1967-68. During 1968 the Corporation produced 17,400 tonnes of Balahar and distributed as midday meal for school children under CARE. (See under "All India Corporations" for more details).

### Subsidiary Foods

The Food and Nutrition Board has initiated investigations for the development of cotton-seed protein for human consumption, fortification of common salt with calcium and development of food from green vegetation and further work on parboiled rice and vegetable milk powder.

Demonstration-cum-community canning and food preservation centres have been established one each at Delhi, Bombay, Madras and Calcutta. Four mobile food and nutrition extension units for the systematic campaign for promotion and popularisation of food preservation technique, suitable dietary habits, cost balanced diet and scientific technique of cookery, proper utilisation of food etc. with Headquarters at Delhi, Bombay, Calcutta and Madras, have also started functioning. The three Institutes of Catering Technology and Applied Nutrition at Calcutta, Bombay & Madras and the Institute of Hotel Management, Catering and Nutrition (Delhi) imparted training for diploma and Craftsman course. Food Craft Centres, one each in Kalamassery (Kerala), Ahmedabad (Gujarat), Bangalore (Mysore), and Panaji (Goa) in addition to one at Lucknow (U.P.) were established to help in dissemination of food grains to various industries.

Pilot plants for the production of edible groundnut flour for the manufacture of multi-purpose food, enriched atta, maida etc. have been set up in Coimbatore and Bombay. One unit each of one ton multipurpose food per day production capacity was set up in Calcutta and in Sitapur and Kotdwara (U.P.).

Balahar: This protein rich food for infants containing 25 per cent ground-nut flour, 10 per cent gram and 5 per cent whole meal atta fortified with minerals and vitamins has been developed and produced on a large scale in cooperation with a Bombay Mill.

A project for setting up edible tapioca flour of 10 tons daily capacity for Kerala has been taken up by the Food Corporation. Weaning Food — A precooked processed food prepared from blend of pulses, groundnut flour, cereals and skimmed milk powder is being manufactured through Kaira Co-opr. Union with the assistance of UNICEF.

Modern Bakeries Private Limited has been set up in the public sector for the production and distribution of nutritious bread cheaply. Six of these have already been set up at Cochin, Delhi, Ahmedabad, Bombay and Calcutta as a gift from Australian Government. Three more bakery plants are given as gift under Colombo Plan by Canadian Government and are b ing set up at Bangalore, Hyderabad and Kanpur.

Roller mills wheat products price control order was amended to permit enrichment of atta with 5-10 per cent edible groundnut flour.

A 3 months' (short term) training course for engineers in rice technology and processing has been started at the Indian Institute of Technology at Kharagpur, Pilot

studies have also been initiated in the production of edible rice bran oil in collaboration with the modern rice mill at Tanjavore. Technical assistance is extended to Tamil Nadu for the production of dehydrated coconuts of very high quality and protein rich deciled coconut meal for human consumption.

### PACKAGE PROGRAMME

The above programme which was initially introduced in 7 districts and subsequently extended to cover 9 other selected districts has completed its five-year operation. It is now in operation in 17th district (Karnal in Haryana).

The Package Programme is now invigorated through three other Programmes.

- (a) The IADP—Intensive Agricultural District Programme—under this programme about 13 lakhs of cultivating families belonging to 25,639 villages in 15 selected districts were covered by the end of 1967–68 involving 32 lakh hectares. This programme got the benefit of help from various foreign agencies.
- (b) The HYVP—High Yielding Varieties Programme—This programme was launched in 1966–67. During 1967–68 it covered 6.04 million hectares. The average yield as a result of this programme showed phenomenal increase in wheat ranging from  $2\cdot24$  to  $5\cdot04$  tonnes, maize:  $2\cdot24$  to  $4\cdot12$ , Jowar:  $1\cdot6$  to  $4\cdot5$  and bajra  $1\cdot6$  to  $3\cdot9$ . The target for the coverage of programme for 1968-69 was  $8\cdot5$  million hectares.
- (c) Multiple Cropping Programme—This programme was started in 1967–68. The achievement during the year was estimated at 3.64 million hectares and the target for 1968–69 was fixed at 6.07 million hectares.

### EXPORT PROMOTIONS

Efforts made by the Department of Agriculture in the promotion of exports of agricultural commodities consist mainly of taking measures for giving a boost to the production of important export commodities so as to make available larger quantities for export. With this objective, special centrally sponsored programmes have been undertaken and increased outlays provided in State Plans to achieve higher production targets for commercial crops.

The export policies on various agricultural commodities are constantly being reviewed with a view to locating items which could be liberalised for export.

Efforts are being made for increasing production of export oriented agricultural products through centrally sponsored package programmes (taken up during 1967–68) in cotton, jute, groundnut and tapioca. As a result the export availability being larger the Government has relaxed export restrictions in ground-nut kernel, cake and cotton seed cake.

## AGRICULTURAL PRICES COMMISSION

The Government of India considered recommendations of the Commission and announced for 1968–69 season minimum support prices for paddy, wheat, jowar, bajra, maize and gram among food grains and for cotton, jute and sugarcane which were generally higher than those of the previous season. The statutory ceiling on the prices of raw cotton was also removed from 1967–68 season. Procurement prices which are higher than minimum prices were fixed for kharif and rabi foodgrains for 1968–69; these were fixed at higher levels than those of previous season to give incentive to producers. The actual levels of procurement prices for 1968–69 (marketing season) are given below along with those for 1967–68.

### **Procurement Prices**

	and since			(Rs. lakhs)	
Crop			1967-68	1968-69	-
Paddy		1	45 56 - 25	45 — 56-25	8
Rice			$72 \cdot 8 - 95 \cdot 25$	$72 \cdot 69 - 99 \cdot 00$	
Wheat		**	65 - 95	76.00 - 81.00	
Maize			47 55	$47 \cdot 00 - 55 \cdot 00$	
Jowar	00000		47 - 56(a)	$47 \cdot 00 - 56 \cdot 00$	
Bajra	10000		47 55	47.00 - 55.00	
Ragi			$47 \cdot 00 - 55 \cdot 00$	47.00 - 55.00	

(a) The price of jowar of inferior quality has been fixed at Rs. 43 in Maharashtra.

### FOODGRAIN POLICY

A Conference of Chief Ministers was held on 26th & 27th September 1967, to discuss the food policy for the year 1967-68. The following important conclusions were reached in the Conference:—

- (i) In view of the paramount importance of maximisation of procurement for meeting public distribution needs within the States, export to deficit States and to build a buffer stock of 2 to 3 million tonnes, the consensus at the conference was in favour of continuing the zonal restriction for the movement of foodgrains for the year 1967-68.
- (ii) A vigorous procurement drive should be undertaken during the year 1967–68. The procurement target of 7 million tonnes of kharif cereals as recommended by the Agricultural Prices Commission with a State-wise breakup was also discussed. Despite the general awareness of the need to maximise internal procurement, some States felt that the procurement targets recommended by the Agricultural Prices Commission may not be reached. The surplus States of Andhra Pradesh, Orissa, Madhya Pradesh, Punjab, Tamil Nadu and Haryana assured that 4·1, 2·0, 4·0, 1·5, 1·25, and 0·5 lakh tonnes respectively of rice will be available for export. It was emphasised on surplus and deficit States that, in view of the necessity to maximise internal procurement, it is necessary to increase procurement targets. The deficit States should also make a more realistic assessment of their requirements exercising greatest economy and vigilance in public distribution.
- (iii) Methods of procurement should be left to each State Government to decide keeping in view the local condition and the procurement target suggested by the Agricultural Prices Commission.
- (iv) It was recognised that, on the one hand, the procurement prices offered to the producers should take into account the higher cost of production and the element of price incentive necessary for inducing more production, on the other hand the impact of procurement price on

market prices of foodgrains, cost of living and the general price level cannot be lost sight of. There was a consensus on the need of balancing the interests of the producers and consumers and narrowing inter-state price disparities. It was decided that the procurement prices of respective States will be discussed at the official level immediately after the conference.

- (v) The Food Corporation of India should play an increasing role as the largest single wholesale public agency in the country, especially for inter-state trade. It was pointed out that the Food Corporation of India can work effectively only with the fullest cooperation of the State Governments. Wherever necessary, State Board of Management would be appointed to establish effective liaison between the State Government and the Food Corporation of India.
- (vi) The incentive bonus given for the supply of rice and wheat to the Centre may be continued with some modifications. Incentive bonus should be given only if supplies exceed a certain minimum level.
- (vii) There was some divergence of opinion on the question of subsidy on imported foodgrains. One view, especially in the deficit States, was that the subsidy should be continued to give relief to the vulnerable sections of the society. The other view was that subsidy on imported foodgrains may be withdrawn and that the savings may be utilised for increasing agricultural productions. It was decided that these views would be taken into account while examining the question of withdrawal of subsidy.

### FOOD SITUATION, 1968-69

The food situation in the country remained generally comfortable during 1968. After two continuous years of low production due to widespread droughts, a record foodgrain crop of 95.6 million tonnes was harvested in 1967–68, which was 21.4 million tonnes higher than that of 1966–67, and 6.6 million tonnes higher than 1964–65. The increase in foodgrain production, mainly due to better management and farm technique led to all round improvement in food situation. Market availability increased and prices also fell significantly. Offtake from public distribution system declined from 13.2 million tonnes (in 1967) to 10.3 million tonnes (in 1968), while Govt. procurement rose to 6.7 million tonnes (in 1968) being over two million tonnes procured during the previous year. The central and state reserve of food grains stood at 3.8 million tonnes at the beginning of 1969 despite the fall in imports from 8.7 million tonnes (in 1967) to 5.7 million tonnes (in 1968).

Weather conditions during 1968-69 had not been as good as those of 1967-68, yet, due to better farm technology under high yielding varieties the overall production of foodgrains during 1968-69 was expected to be as good as in the previous year.

## FORESTS

TOTAL forests: 302,688 sq. miles. Percentage of forests to land: 21.8. Per capita forest area will be about half an acre.

Financial return per acre of forest: Rs. 2.60.

The forests are unevenly distributed and the production is also proportionately low, being only 2.5 c.ft. per acre per year as compared to 56.8 c.ft. in France, 37.3 c.ft. in Japan and 18.1 c.ft. in U.S.A.

Private forests: In Assam 400 sq. miles (in Khasi and Jaintia Hills), Orissa 600 sq. miles mostly in zamindari

agencies, Punjab 340 sq. miles in scattered units, and Himachal Pradesh 29 sq. miles in Jabbal Division.

About 16 per cent of the total forest area is inaccessible and 45 per cent of these could yield timber and other forest produce.

'Forests' are a State subject.

The Government of India, however, are responsible for forest research and forest education. The Ministry of Food and Agriculture in the Government of India coordinates forest activities in the country, but no forests FORESTS 2

are directly worked by it except the Andaman forests. The Inspector-General of Forests is their technical adviser in forest matters.

### **EDUCATION AND RESEARCH**

Forest research and education are centralised in the Forest Research Institute and Colleges located at Dehra Dun. The Institute is recognised by the F.A.O. as a Centre for training in Forestry for South-East Asia.

The Forest Research Institute and Colleges are under the administrative control of the Ministry of Food and Agriculture, Community Development and Co-operation of the Government of India. Its administrative Head is designated the President. It has under its control two Regional Forest Research Centres, one at Bangalore and the other at Coimbatore to deal with the special problems pertaining to the area.

The institute was reorganised into four directorates working under the President, viz., 1) The Directorate of Forest Education with 3 forestry colleges under it, two at Dehra Dun and one at Coimbatore, 2) The Directorate of Forestry Research having two branches the Silviculture Branch and the Logging Branch, 3) the Directorate of Biological Research having six branches, the Minor Forests Produce Branch, the Botany Branch, the Forest Pathology Branch, the Entomology Branch, the Wood Anatomy Branch and the Wood Preservation Branch and 4) the Directorate of Forest Products Research having six branches, the Wood Seasoning Branch, the Composite Wood Branch, the Cellulose and Paper Branch, the Timber Mechanics Branch, the Timber Engineering Branch and the Chemistry of Forest Products Branch.

Statistical Branch — This branch deals with the appropriate methods of collecting, analysing and then interpreting the numerical data in various fields of foresty and forest product research.

Service Branch — Engineering Services like the designing of pilot plants, erection of heavy plant and equipment, advice in the selection of equipment, servicing and repair of machinery and apparatus, etc. are rendered by this Branch.

Southern Research Centres — The problems which are specific to the Southern Region are studied at the research centres at Bangalore and Coimbatore.

Publicity & Liaison Branch—The results of researches are publicised and liaison with State Forest Departments, Forest Based Industries and the General Public is maintained by this Branch.

#### U. N. AID

The U.N. is expected to help India's Rs. 1,440-lakh project of scientific survey of forest resources from its special fund.

The U.N. is expected to contribute, mainly in the form of technical experts and equipment, including helicopters and aerial survey apparatus, to the tune of Rs. 40 lakhs.

Two of the U.N. aided projects are "Pre-investment Survey of the Forest Resources" and Establishment of Logging and Training centres. The first project costing Rs. 131 lakhs is assisted by Rs. 42·15 lakhs from U.N. special Fund to investigate the availability of forest raw materials for industrial development in three selected zones i.e. Northern, Central and Southern covering 11,500 sq. miles, assess the raw material requirements of wood based industries and to determine suitable areas for industrial plantations. Field work for ground sampling in all the three zones were completed during 1967-68.

Training courses in basic logging have been started in the Northern Zone (Dehra Dun), Central Zone (Chandrapur) and in the Southern Zone (Coimbatore). Training courses in the operation and maintenance of logging equipment, studies in planning and efficiency of logging operations and land milling and operation in cable ways are run at Dehra Dun, Chandrapur and Kula respectively. During the year 1968-69, 252 students received training and in all 827 students have been trained so far since the inception of the project. Sixteen demonstrations on the application of improved logging technique were also organised during the year for the benefit of forest officers from States and Territories.

### FOREST PRODUCE

Forest produce is divided into two main heads—(1) Major produce, i.e., timber and firewood, and (2) Minor produce, comprising all other products, such as bamboos, canes, leaves, fruits, fibres, grasses, gums, resins, essential oils, medicinal and poisonous plants, fatty oils and fats, dyes, tans, animal and mineral products.

The annual output of timber is 274 million c.ft. and of firewood 700 million c.ft. At present annual import of wood and wood products is of the order of 40 million c.ft.

The bulk of the timber supply is used for railway sleepers, constructional requirements, furniture, plywood (especially for tea chests), matches, etc.; but the country imports timber for specialized uses such as jute and textile mill accessories.

Exports from India are limited to selected rosewood logs for high grade furniture to Europe, teak poles for the Middle East and a few other items.

A. N. Islands: From April to Dec. 1968, about 65,013 tonnes of timber were extracted of which about 38,000 tonnes were shipped to mainland. About 465 hectares have also been brought under teak and matchwood plantations under the scheme for raising industrial plantations and 445 hectares were also brought under natural regeneration.

Imports are regulated by protective or revenue duties and are restricted to such specialized items as are not really obtainable from local production.

### PLANTATION SCHEMES

In order to meet this deficiency three important schemes, namely:

- (i) Plantation of quick growing species;
- (ii) Plantation of economic species (teak, sissoo, semal, etc.); and
- (iii) Plantations to be raised under the scheme of rehabilitation of degraded forests

will be taken up in the Fourth Plan. In addition, it is proposed to raise extensive wood plantations including the farm forestry and afforestation schemes for the soil conservation programmes.

The forests which would have to be cleared to raise the plantations proposed in the Fourth Plan are expected to make available approximately 4.8 million cubic metres.

### TRAINING

After the constitution of the Indian Forest Service, the first batch of I.F.S. Probationers underwent training. The strength of trainees for 1968-70 is 11 in the Indian Forest College, Dehra Dun, 110 in Northern Forest Rangers College, Dehra Dun and 146 in Southern Forest College, Coimbatore. 144 students from Southern Forest College passed out during the year.

The development programmes for forests proposed in the Fourth Plan cannot be implemented without adequate technical staff. The Indian Forest College at Dehra Dun, which is the only college in the country for training forest officers could, with great difficulty cope with the training of officers in the Third Plan. Provision to strengthen both the officers' and the rangers' colleges at Dehra Dun has been made in the Fourth Plan. A new ranger's college is also proposed to be started in central India, in addition to the existing colleges at Dehra Dun and Coimbatore.

#### CONSERVATION

The Meeting of the Xth General Assembly of the International Union for Conservation of Nature and Natural Resources, with its headquarters in Morges, Switzerland, which was held in New Delhi from 24th November to 1st December 1969 has drawn attention again to the urgent need for conserving our flora, fauna, soil and water resources for the future well being of this country. India has become a State Member of the IUCN.

The following are some of the more important societies concerned with conservation in India: (I) Bombay

Natural History Society, Hornbill House, Shahid Bhagat Singh Road, Bombay 1; (2) Wild Life Preservation Society of India, 7, Astley Hall, Dehra Dun, U.P.; (3) World Wildlife Fund Indian National Appeal, Hornbill House, Shahid Bhagat Singh Road, Bombay 1; (4) Peermade Wild Life Preservation Society, Stagbrook Estate, Peermade P.O., Kerala; (5) Nilgiri Wild Life Association, Ootacamund, Nilgiris, S.I.; (6) Gujarat Natural History Society, 57, Pritamnagar, Ellis Bridge, Ahmedabad 6; (7) Birdwatchers' Field Club of India, 32-A, Juhu Lane, Andheri, Bombay 56; (8) High Range Game Association, Munnar P.O., Kerala; (9) Delhi Birdwatching Society, A Block, Dalhousie Road, New Delhi 11.

At Government level the Indian Board for Wild Life as well as the State Wild Life Advisory Boards in several states have been playing an important part in pressing upon the authorities the need to preserve habitats and wild life species.

### AREA UNDER FORESTS

(See under each State)

## AGRICULTURE

S OME major facts about Indian agriculture (1966-67): Total geographical area according to village papers (reporting area): 305.9 million hectares; area not available for cultivation (including forests, 60.5 million hectares, land for non-agricultural uses and barren lands, 15.6 and 35.0 million hectares respectively); other uncultivable lands like permanent pastures and grazing lands, land under free crops and cultivable wastes; 35.2 million hectares; fallow land: 22.6 million hectares: net area sown: 137.03 million hectares; area sown more than once: 19.6 million hectares; gross area sown: 156.6 million hectares; net area irrigated: 27.5 million hectares & gross area irrigated: 32.7 million hectares.

Average rainfall 45"; deficiency of 25 per cent is classed dry; deficiency of 40 per cent severe drought; usually one year in five is a dry year, one in ten, a year of severe drought, one in 20 to 25 years widespread severe drought.

### AREA AND PRODUCTION

The names of crops, area in '000 hectares and production in '000 tonnes respectively during 1968-69 are given below: Rice 36,966; 39,761; Wheat 15,958; 18,652; Barley 2,758; 2,424; Maize 5,716; 5,701; Jowar 18,731; 9,804; Bajra 12,052; 3,802; Ragi 2,238; 1,648; Small millets 4,748; 1,803; Total cereals 99,166; 83,595; Gram 7,105; 4,309; Red grams 2,529; 1,816; Other pulses 11,630; 4,292; Total pulses 21,264; 10,418; Total foodgrains 120,430; 94,012; Sesamum 2,410; 414; Groundnut 7,091; 4,476; Rape and Mustard 2,992; 1,572; Linseed 1,707; 352; Castor seed 384; 111; Total oilseeds 14,584; 6,926; Tobacco 412; 347; Cotton 7,685; 5,270 (bales of 1000 kg.); Jute 529; 3,052; Mests 277; 921; Sanhemp 173; 66; Turmeric 529; 3,052; Potato 537; 4,773; Guar 426; 595.

Coconut  $894^1$ ;  $5,192^1$ ; Arecanut  $143^1$ ;  $126^1$ ; Cashewnut  $202^1$ ;  $160^1$ ; Cardamom  $80^1$ ;  $4\cdot0^1$ ; Sugarcane  $2,307^1$ ;  $9,959^2$ ; Pepper  $102^2$ ;  $23^2$ ; Ginger  $22^2$ ;  $20^2$ ; Chillies  $760^2$ ;  $487^2$ ; Tea  $348^2$ ;  $383^2$ ; Bananas  $210^1$ ;  $3,732^1$ .

### <sup>1</sup> Figures for 1966-67.

### INDEX OF PRODUCTION - ALL COMMODITIES

(Base 1949-50 = 100)

Year	INDEX NUMBERS OF PRODUCTION						
	Foodgrains	Non- foodgrains	All				
1966-67	123.8	147-4	131.6				
1967-68	159.0	165.1	161.0				
1968-69	157.5	161.0	158.7				

### **FOODGRAINS**

Foodgrains production in 1968-69 reached  $94\cdot012$  million tonnes. This is less than  $1\cdot04$  million tonnes from the record production of  $95\cdot0$  million tonnes in 1967-68.

#### RICE

Rice crop occupies the largest area in the Indian Union, about 35 million hectares. During 1968-69 the area under rice cultivation was 36.97 million hectares and the production was about 39.76 million tonnes.

Tamil Nadu, Bihar, Bengal, Orissa, Madhya Pradesh, Uttar Pradesh, Assam, Andhra, Maharashtra, Mysore, Kerala and Gujarat are the main rice growing States and they together claim about 95 per cent of the total rice area in India.

#### WHEAT

The area under wheat is about 12.6 million Rectares. During 1968-69, the area under wheat was 15.9 mill. hectares and production 18.6 mill. tonnes. Wheat is grown widely throughout the north as a winter crop, U.P., M.P. and Punjab supplying over 72 per cent of the total outturn in the country. This crop occupies, on an average, about 10 per cent of the total cultivated area.

More than one-third of the crop is irrigated.

### MILLETS .

Jowar:—About 17 million hectares are grown under this to yield about seven million tonnes of grain. Maharashtra, Andhra, Mysore, M.P. and Gujarat contribute

<sup>&</sup>lt;sup>1</sup> Figures for 1967-68.

over \(^2\) of the natural acreage. The jowar area and production respectively during 1968-69 were 18.7 mill. hectares and 9.8 mill. tonnes.

Bajra:—Occupies about 11 million hectares to yield about 3.6 million tonnes of grains. U.P., Rajasthan, Punjab, Gujarat and Maharashtra are the chief growing tracts. The duration of the crop varies from about  $2\frac{1}{2}$  to 5 months. During 1968-69 bajra was cultivated in  $12\cdot0$  mill. hectares and produced about  $5\cdot1$  mill. tonnes.

Ragi:—Ragi occupies about 2·2 million hectares to produce about 1·6 million tonnes of grain. More than half the area is in Mysore, Tamil Nadu and Andhra. The area and yield during 1967–68 were 2.3 mill. hectares and 2·0 mill. tonnes respectively.

Other Millets:—The others grouped under lesser or minor millets form about  $\frac{1}{6}$  of the total area under millets and are grown in about 4.4 mill. hectares and yield about 1.6 million tonnes of grain. The area and yield during 1968-69 were 4.7 mill. hectares and 1.8 mill. tonnes respectively. The most important among them are Kora or Kangri, Kodon, Cheena or Varagu, Oodalu, and Sawan.

Maize:—Maize is cultivated in India in about 4.7 mill. hectares to produce about 4.7 mill. tonnes of grain. The major growing areas, U.P., Bihar, Rajasthan, Punjab and M.P. which between themselves account for about three-fourth of the maize area. The area and production during 1968-69 were 5.7 mill. hectares and 5.7 mill. tonnes respectively. The average yield is only about 10 mds. per acre. Seven hybrids (Ganga 2 and 3, Ganga Saffed, Ganga high Starch, Ranjit, Deccan and Himalaya) giving 56-70 per cent more than local varieties have been produced.

Barley:—During 1968-69 barley was cultivated in an area of  $2 \cdot 8$  mill. hectares and the production estimate was  $2 \cdot 4$  million tonnes.

Pulses:—Pulses are grown in over two million hectares producing over ten million tonnes of grains.

#### COTTON

The area under cotton during 1968-69 was 7.685 mill. hectares producing 5.270 (thousand bales/180 kg. Cotton lint) or 2.843 thousand tonnes of kapas.

### FRUIT

The total area under all fruits at the end of the Third Five Year Plan was 3.45 million acres as against 3.08 mill. acres at the end of the Second Plan.

Fruit and vegetable products amounting to over 89,920 tonnes are now manufactured in the country. Upto Sept. 1968, 1,073 firms were granted licences for the manufacture of fruit and vegetable products. The I.C.A.R. has set up in 1967 a Central Horticultural Research Institute at Hessarghatta in Mysore for overall researches on the major tropical fruits viz. mango, banana, papaya, grapes, citrus and also on ornamental plants of commercial importance.

### REGULATED MARKETS

One of the visible benefits of regulated markets, which work on democratic principles, has been the reduction in the market charges to extents varying between 29 to 50 per cent. The saving to the producer on this account is estimated to be Rs. 3 for every Rs. 100 worth of goods sold by him. Open auction system which yields better price to the producer has also been introduced in a majority of the markets. New market yards with modern amenities are also being provided.

The number of regulated markets was 1,880 and grading units 504 during 1968-69.

Marketing, Processing: The main features of the programme are:— (1) Linking credit with marketing in the form of marketing societies; (2) Developing, processing and distribution of farming requisites on co-operative lines, and (3) Promotion of storage and warehousing.

#### COLD STORAGE

The present capacity of cold storage in the country is about 2·5 million maunds provided by over 200 cold storages mostly run by private traders. Permission has also been granted for the expansion of 99 cold storages and for setting up 223 new cold storages. Upto Sept. 1968, 934 cold storages were licensed in the country.

#### SOIL CONSERVATION

The co-ordination of soil conservation work between the States and Territories is achieved through the agency of the Central Soil Conservation Board in the Ministry of Food and Agriculture. Similar boards are also set up in most of the States and Territories.

During 1968-69, soil conservation programmes benefited an area of 14·4 lakh hectares of agricultural and forest land.

Altogether 10 research-cum-training centres under the jurisdiction of I.C.A.R. have been established at the following places:—

1. Ootacamund (Tamil Nadu) for erosion control in the Nilgiri and other hills; 2. Bellary (Mysore) for soil conservation studies in black soils; 3. Kotah (Rajasthan) with sub-centre at Agra for erosion control in the Chambal and Jumna ravines; 4. Jodhpur (Rajasthan) for afforestation in the Rajasthan desert; 5. Dehra Dun (U.P.) for studying problems of afforestation in the Sivalik hills with the sub-station at Chandigarh (Punjab)\* for training chas (hill torrents); 6. Vasad (in the Gujarat tract) for erosion control in the ravines along rivers in Gujarat; 7. Chandigarh (outer Sivaliks); 8. Chatra (water shed management); 9. Agra (Yamuna ravines); 10. Ibrahimpatnam (Andhra) for tackling red soil problems.

Centrally sponsored soil conservation schemes were in operation in the catchments of 13 river valley projects in 14 States to reduce silt in dams and reservoirs. An area of 0.86 lakh hectares has been estimated to be covered by the scheme at a cost of Rs. 3.10 crores in various States.

An Integrated All-India Soil and Land Use Survey Scheme has been executed by the Central Soil Conservation Board with four Zonal Centres at Delhi, Nagpur, Bangalore, and Haringhata, with effect from 1st March 1959. Under this scheme 4·86 lakh hectares were expected to be surveyed during 1968-69.

### AGRICULTURAL EDUCATION

Ten agricultural universities of the pattern of Land Grant Colleges† have already been established in Bengal (Kalyani), in Orissa (Bhubaneshwar), Punjab (Ludhiana), Rajasthan (Udaipur), U. P. (Pantnagar), Andhra (Rajendranagar), Madhya Pradesh (Jabalpur), Maharashtra, Assam and in Mysore (Hebbal). The Indian Agricultural Research Institute, New Delhi, now declared as the only National institute for agricultural research in India also gives coaching and examination and tests for post graduate degree courses in agricultural diplomas. A total grant of Rs. 2·5 crores was released as grant for the development of agricultural universities during 1968–69. In addition Rs. 10 lakhs have been sanctioned for the

<sup>\*</sup> Composite State. † Other campuses at Hissar (Haryana) and Palampur (Himachal Pradesh).

development of the agricultural colleges of two central Universities, Banaras Hindu University and Viswabharati, Santiniketan.

There are 70 agricultural colleges in India.

### LAND POLICY

The agrarian reforms undertaken by the various State Governments during the past few years fall generally into four broad classes:—

### ABOLITION OF INTERMEDIARIES

The programme for the abolition of intermediary tenures has been almost entirely completed.

### TENANCY REFORMS

The principal features of tenancy reforms are (a) security of tenure for tenants, (b) regulation of rent and (c) conversion of tenants into owners.

With the abolition of intermediaries, the tenures come under two broad categories, i.e. (i) owners who hold land directly from the State; (ii) and the tenants who hold land from owners. Their rights and obligations are regulated under tenancy laws enacted in the States. Thus the multiplicity of tenancy has been considerably reduced, and in most parts, tenants who hold land under intermediaries have now become owners of land.

Regulation of rent—Land revenue assessment: Legislation has been adopted in all States for the regulation of rent. The Plan recommendation is that it should not exceed one-fourth or one-fifth of the gross produce. But the rent fixed, however, varies with the State. Legislation has been enacted in all the States for regulating maximum rents which a landlord may receive.

Security of Tenure: Legislation providing security of tenure has been enacted in all the States.

Resumption: Legislation has been put through in most of the States prescribing a basis for the resumption of the land by the landlords.

Ownership Right for Tenants: Tenants were declared owners on payment of compensation to owners in almost all States.

Compensation to Landlords: Compensation payable by tenants for the acquisition or ownership varied from State to State except in the Punjab (where it is fixed at \$\frac{3}{4}\$ of the average market value). Compensation is generally a multiple of rent or land revenue. In Andhra (Hyderabad 6-15); Madhya Pradesh (Madhya Bharat: 2-8 of the net income of landlord); Ajmer: 12; former Vindhya Pradesh: 15; former Madhya Pradesh (7-10); Rajasthan (for unirrigated lands); 10 and Uttar Pradesh 10.

In the Travancore part of Kerala it is fixed at eight and a half times the net annual income.

The compensation is fixed as a multiple of the assessment in five States:—Gujarat and Maharashtra: 20–200 times of the assessment; Delhi: 20–40; Himachal Pradesh: 48 and Punjab (PEPSU): 90 times of the assessment. This compensation is generally payable in instalments (except in former Madhya Pradesh) spread over a period of 5–15 years.

#### FIXATION OF CEILING

Ceiling on Holding: Legislation placing ceiling on agricultural holdings has been enacted in all States and

\* Composite State. † As originally conceived.

Territories except Punjab\*. Though there is no outright ceiling on ownership in Punjab\*, the Government is empowered to settle ejected tenants on lands under personal authorities of owners in excess of the prescribed limits.

State-wise existing and future agricultural holdings in brackets respectively in acres, allowed by any individual, are as follows:—Andhra Pradesh 27—324 (12—200); Assam 50 (50); Bihar 20—60 (20—60); Gujarat 19—132 (19—132); Jammu & Kashmir 22\frac{2}{2}(22\frac{3}{4}); Kerala 15—37\frac{1}{2}(15—37\frac{1}{2}); Madhya Pradesh 25—75 (25—75); Tamil Nadu 24—120 (24—120); Maharashtra 18—126 (12—126); Mysore 27—216 (18—144); Orissa 25—100 (25—100); Punjab\* 30 Standard (30 Standard); Rajasthan 30 Standard (30 Standard); Uttar Pradesh 40 (12\frac{1}{2}); West Bengal 30 Standard (30 Standard); Delhi 30 Standard (30 Standard); Manipur 25 (25); Tripura 25—75 (25—75).

### SURPLUS LAND

As a result of implementation of legislation for ceilings on holdings considerable acreage has become surplus and allotted to tenants etc.

In Assam, Bihar, Delhi, Gujarat, Madhya Pradesh, Maharashtra and parts of Tripura provisions of the Bill have been enforced and implementation is progressing.

#### CONSOLIDATION

(a) Size of Holding: The average size of a holding for the whole of India is 7.5 acres, but this varies from State to State: Assam 5.3 acres, Bihar 4.1 acres, M.P. 13.9 acres, Tamil Nadu 9.7 acres, Orissa 5.6 acres, Punjab 11.8 acres, U.P. 5.3 acres, W. Bengal 4.7 acres.

Kashmir  $3\cdot 8$  acres, Kerala  $2\cdot 4$  acres, Mysore  $7\cdot 2$  acres, Rajasthan  $16\cdot 9$  acres.

The majority of the holdings will be less than 5 acres, a great majority indeed less than 2.

The proportion of households that held either no land or less than five acres was about three fourths, and the total share was about one-sixth of the whole area of cultivated land.

Legislation has been enacted in most of the States and in the Delhi and Himachal Pradesh Territories for prevention of holdings and consolidation of fragmented holdings. Consolidation was completed over 162 lakh hectares upto 1968 at a cost of Rs. 32 crores. During 1968-69 a further area of 17 lakh hectares was expected to be consolidated.

In the Fourth Five Year Plan† it is proposed to spend Rs. 100 million for subsidy and loans to new settlers and Rs. 320 million for consolidation of holdings to extend the programme to another 56 million acres.

### CO-OPERATIVE FARMING

The main purpose of such type of farming is to secure economy in the use of machinery, and the advantages of large-scale farming.

## STATEWISE AREA AND PRODUCTION

For classification, area and production of foodgrains, and area and production of oilseeds, spices, fibre crops and cash crops, statewise see under each State.

## LIVESTOCK

THE total livestock population in India (excluding poultry) is placed at 343.7 million, according to the 1966 livestock census as against the 1961 census figure of 336.4 million, an increase of 2.2 per cent. About half of this is cattle amounting to 175.99 million, sheep 40.0 million, goats 64.5 million, Buffaloes 52.9 million and poultry 115.0 million, horses and ponies 1.1 million, pigs 4.9 million, camels 1.0 million and other livestock 1.1 million. The net contribution of livestock to the national income at present is estimated to be over Rs. 30,000 million excluding Rs. 4,000 million contribution in terms of bullock/draught power. Their foreign exchange earnings were as much as Rs. 880 million in 1966–67 amounting to 8 per cent of the total foreign exchange earnings of the country and about 29 per cent of such earnings from important agricultural commodities and products.

Meat from livestock is a valuable source of protein; about 0.9 per cent of the total cattle population is slaughtered for meat, and 36 and 32.5 per cent of the goat and sheep population respectively. The annual production of meat from goat is about 0.15 million tons and that of mutton 0.11 million tons. Production of beef, buffalo flesh and pork amounts to 0.12, 0.09 and 0.02 million tons respectively. The total annual production of meat from all species is estimated to be over 0.46 million tons valued at Rs. 1,000 million.

### CATTLE

Among the well-defined breeds of cattle (25 and 8 of buffaloes), three broad divisions are: dairy or milch and draught cattle and those that serve a dual purpose.

Dairy Milch:—The Sahiwal, the best milch breed, are responsive to environment, have an yield of 4,000 lbs. a year. The Sindhi are also responsive to environment, the Gir in Saurashtra and Rajasthan have an yield of 3,700 lbs. a year. In the order of the productivity of milk the cattle may be arranged as follows: the Sahiwal, the Kankrej, the Ongole.

Draught:—The Amritmahal Hallikar (Mysore) are good for draught purposes but are poor milkers.

Dual:—The Galo in Madhya Pradesh are draught animals but also good milkers, 3,000 lbs. The Kangayam in the south and south-east of the country are powerful draught animals of average milk yield. The Kankrej, are essentially draught but have milk potentialities (3,000 lbs.); they belong to Gujarat. The best known in this group are the Haryana (Punjab, 3,000 lbs.), Tharparkar (Gujarat and Rajasthan, 3,000 lbs.), and Ongole (Andhra).

The best known breeds of buffaloes (26 in all) are the Murrah, Nili and Ravi of the Punjab, the Jufferbadi of Kathiawad, Mehsana of Gujarat, Nagpuri of Vidarbha and the Surti and Pandharpuri (a type of Nagpuri buffaloes) of Maharashtra. All except the Nagpuri are noted dairy breeds. Murrah is adapted to all climates. They also yield on an average about 3,000 lbs. of milk for over 300 days in a year.

The average annual milk yield of a buffalo is 1,100 lbs. against 413 lbs. of the Indian cow. Buffalo milk being one and a half times as rich in fat content as cow milk, is more valued for butter and ghee production. Buffaloes

are also better utilisers of coarse fodder and are less expensive to keep.

It is estimated that contribution of draught power in terms of rupees is about four hundred crores. The area cultivated by a pair of working animals is about  $8\cdot 16$  acres.

Livestock Development is stepped up through special schemes such as key village blocks with cattle breeding farms and arrangements for bull rearing, artificial insemination, subsidised calf rearing and also Goshalas and Gosadans.

Cattle Development Programmes; Achievement during 1967-68 and 1968-69 respectively: Key Village Blocks (Nos.): (a) Established (17; 3); (b) Expanded (12; 0); (c) Subsidised rearing of calves (Nos.) (1,150; 1,200); Cattle breeding farms (Nos.); Established (3; 3); Gosadans (Nos.) (62; 0); Feed and Fodder (a) Pasture demonstration plots (No. established) (0; 12170); (b) Distribution of forage seed (0; 1816 qtls. seed and 45.56 lakh rootslips); (c) Forage production (Regional) stations (—; 3).

### Intensive Cattle Development Programme

Intensive cattle development projects: Andhra 2, Bengal 2, Bihar 2, Gujarat 4, Jammu and Kashmir (Srinagar) 1, M.P. 2, Maharashtra 4, Tamil Nadu 3, Mysore 3, Orissa 1 and U.P. 3. The I.C.D. Projects in the country has risen to 32, covering the breedable female bovine population of 27 lakh cows and buffaloes. This area development has been introduced also for sheep, poultry and piggery.

Service Training Centres:—For the development of livestock seven service training centres were established. The services of F.A.O. experts have been obtained to conduct four practical training courses of two months' duration each in artificial insemination and physiology of reproduction.

Feed and Fodder:—During 1968-69 the programme of feed and fodder resources operated in all the States except Nagaland and four Union Territories.

Salvaging:—Under the scheme for the salvage of superior calves from milk colonies, 1,150 calves of six months age and above were bought from Aarey and Haringhata milk colonies during 1967–68 and distributed freely to bona fide breeders.

Gosadans:—The Gosadan Scheme aims at the removal and segregation of old, unproductive and uneconomic cattle. 62 Gosadans were functioning in the country apart from 18 District Gosadans in U.P.

Gaushala Development: The object is to convert them into efficient milk production centres and to breed better cattle. Total number of gaushalas taken up for development since the initiation in the 2nd Five-Year Plan upto 1967-68 was 397.

#### SHEEP

India produces over 35 million kg. of wool annually accounting for 1·3 per cent of world's production, Rajasthan accounting for about 40 per cent of the production. Though annually an average 11 million kg. valued over Rs. 68 million are exported about 11 million kg. were imported in 1966-67.

Sheep also supply meat worth about Rs. 120 million every year in addition to pelts and manure. 15·3 million sheep skins are used in leather industry. An individual sheep contributes 0·5 to 0·7 tons of manure annually.

Research in sheep breeding is promoted in three major sheep rearing tracts, viz. Temperate Himalayan, North Indian Plains and in the Deccan Plateaux, to evolve strains of sheep which will yield wool for apparel and also for superior types of carpets.

73 sheep breeding farms were set up during the 3rd Five Year Plan for producing quality stud rams and 459 sheep and Wool Extension Centres under rural flocks improvement programme. Under the special development programme (Crash programme) ten new sheep farms have been established, 20 of the existing ones expanded and 67,300 sheep were distributed amongst the farming committees of various States.

### GOATS

Goats besides being the principal source of meat supply, also provide manure, skin, hair (Mohair) and milk.

Important breeds of Indian goats:—Himalayan Goats are found in the hills of Kashmir, Punjab\* and Uttar Pradesh. These are mostly reared for mohair production and also for meat. The Pashmani goat of Kashmir produces an undercoat of very fine variety of hair which goes into the manufacture of shawls. The plain goats comprise some of the best mutton and milch animals. Some of the better known breeds are Marwari, Konor and Jamnapari. The last yields 600 lbs. in a lactation of 250 days. Decean plateaux goats yield small quantities of milk and are mostly reared for mutton.

Results from the Punjab\* and U.P. have shown that selected goats yield (6 to 8 lbs. milk per day going upto even 12 lbs. in U.P.) on an average about 400 lbs. of milk per lactation of 150 days while a few went up to 700 lbs. and even higher.

#### POULTRY

There were about 115 million poultries in India in 1966. The annual contribution of Indian poultry to the country's economy is not less than Rs. 100 million. The per capita consumption of eggs in India is only four per annum as compared with 400 in U.K., U.S.A. or Denmark.

Poultry Development:—Achievements at the end of the Third Five Year Plan are: State Poultry Farms 100; District Poultry Farms 47; Intensive Poultry Development Blocks 79; Marketing Centres 12; Duck Extension Centres 20; Feed Manufacturing Centres 60; Training persons in poultry keeping 21,724.

Poultry development programmes have been intensified by taking up co-ordinated poultry breeding at selected State poultry farms. Regional poultry farms at Bangalore, Bombay and Bhubaneswar have been expanded. By 1967-68, 92 Egg and Poultry Production-cum-Marketing Centres have been set on the lines of Package programme. During 1968-69 eight more such centres have been set up bringing the total 100.

Two Poultry Dressing Plants have also been set up at Poona and Chandigarh.

Fifteen poultry dressing plants with capacity of 2,000 birds each per day have also been procured from Australia and supplied to Assam, Andhra Pradesh, Bengal, Bihar, Gujarat, Haryana, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Rajasthan, Tamil Nadu and U.P. The country is now not

only self-sufficient in poultry equipment but is also in a position to export.

Piggery:—So far seven bacon factories, 27 pig breeding farms and 105 piggery development blocks have been set up in various States. The combined strength of seven main pig breeding stations is about 3,800 pure-bred pigs from which 1,813 pigs were distributed to farms in intensive piggery development areas.

Out of the seven bacon factories which are situated in Andhra Pradesh, Bengal, Bihar, Kerala, Maharashtra, Rajasthan and U.P., the factories in Andhra Pradesh and Bengal sold products worth Rs. 2·38 lakhs and Rs.1·61 lakhs respectively in 1968-69. Kerala and Maharashtra factories are being completed; Bihar, Rajasthan and U.P. factories are nearing completion. A similar project was being set up at Chandigarh also during 1968-69.

#### DAIRYING

Milk and milk products contribute not less than Rs. 6,200 million to the national income.

Of 200 million cattle and buffaloes, 72 million or 36 per cent are milch animals (females over 3 years). Milk yield is, however, low: Cow 413 lb. per year, buffalo 1,100 lb.

Gross production of milk is 20.65 mln. tons, of which 13.2 mln. tons are marketed, the rest being used for home consumption or for feeding the calves. Per capita daily consumption of milk and milk products varies from 16.89 oz. in the Punjab\* to 26.4 oz. in Orissa; average 5.5 oz. The per capita availability of milk during 1965–66 was 5.75 oz.

Total number of dairy plants in operation in 1967-68 increased to 84 comprising 43 liquid milk plants, 34 pilot milk schemes, four milk powder factories and three creameries. The average daily output of milk of all plants was about 16 lakh litres as against 15.50 lakh litres in 1966-67.

In the milk powder factories at Anand, Amritsar, Mehsana and Rajkot, the average daily production of milk powder including infant milk food amounted to about 18 tonnes. The three creameries, at Aligarh, Barauni and Junagadh and the plants at Anand, Amritsar, Calcutta and Delhi manufacture on an average 22 tonnes butter per day. A milk products plant is being established at Miraj, milk powder factory at Vijayawada and an infant milk food plant in the co-operative sector at Moradabad. Two milk powder plants in Punjab and one in Haryana are being established under Yugoslav credit programme.

Training in dairying was imparted at six centres viz. Karnal, Bangalore, Aarey, Allahabad, Anand and Harringhata.

List of dairy plants in operation

State	Plant Avera	)			
	Location		Capacity	Daily	
Andhra	Guntur		4.0	0.451	
Pradesh	Kurnool		4.0	0.930	
Bihar	Barauni		2.0	22.00 kg	
Dinar	(Cream in kg	(.)	The state of	+790 litre milk	
	Bhagalpur		6.0	6.46	
	Gaya		6.0	0.33	
	Patna	100	10.0	2.21	

List of dairy plants in operation—(Contd.)

State	Plants in operation Average (1,000 litres)						
	Location	(	Capacity	Daily			
Gujarat	Ahmedabad .		275.0	55.0			
	Anand (milk						
	product) † .		200.0	135.14			
	Baroda		35.0	17.64			
	701		6.0	0.59			
	Jamnagar .		10.0	1.4			
	Junagadh						
	(Cream in kg.)		2000				
	Mehsana (milk		100.0	36.36			
	Rajkot (milk , product)†		37.5	12.86			
	Surendranagar .		6.0	0.74			
Jammu &	CI .		10.0	5.5			
Kashmir		1		U.S. San Street			
Kerala	Calicut		6.0	4.48			
TKOT CONTEN	D 1 1 4		_				
	FT1 - 1		6.0	7.63			
	77 1 1		10.0	. 00			
Ma dhaa		•	10.0	2.59			
Madhya		*	10.0	2 00			
Pradesh	Indore		400.0	330-61			
Maharashtra	77 11		460.0				
	37 17		6.0	4.95			
			6.0	1.6			
and the second			70.0	43.1			
Mysore	Bangalore . Hubli &		50.0	19.77			
	Dharwar						
	Kudige	9	4.0	1.56			
Orissa	0 11 1		6.0	3.23			
Punjab*	Amritsar						
	(milk product)	+	80.0	37.98			
	CO 21 1		20.0	21.44			
	TT		6.0	2.67			
Rajasthan			6.0	4.94			
Tamil Nadu	C		10.0	10.93			
Tamii Madu		**	4.0	0.55			
	The state of the s	• •	80.0	21.58			
	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON OF THE PE	• •	00.0	21.00			
	Thanjavoor		6.0	6.5			
TT D 1 T				2.36			
U. Pradesh	Agra	•	6.0	1350			
	Aligarh (Creame	гу	2000				
	in kg.)		(Cream)	(Cream)			
	Dehra Dun &			OF THE			
	Kanpur						
	Lucknow		40.0	11.16			
West Bengal	Calcutta (city)		200.0	130.72			
UNION TER	RRITORIES						
Himachal Pra			1	100			
Tripura			6.0	2.49			
Goa	Agartala	*	3				
Centre	Della: +		255.0	197.1			
Centrae	Delhi!	*/*	200.0	10.1			

\* Composite State.

† Manufactures also infant milk food.

‡ Manufactures also milk products and infant milk food.

The total number of dairy plants in operation during 1968-69 was 91 comprising 47 liquid milk plants, 37 field schemes, 4 milk product factories and 3 creameries. During the year the average daily output of milk was about 18 lakh litres as against 16 lakh litres in the previous year.

#### ANIMAL DISEASES

The chief diseases are glanders and surra in equines, foot and mouth disease, haemorrhagic septicaemia, black quarter and anthrax in ruminants and tuberculosis, Johne's disease and contagious abortion. Glanders is incurable but surra can now be successfully treated with Naganol or Antrypol. This disease (surra) also affects camels, cattle and dogs.

Rinderpest causes a mortality of about 60 per cent resulting in an annual loss of 0.4 million heads of cattle, valued at about 300 million rupees. Because of the eradication campaign of the past, Kerala, Mysore and Tamil, Nadu are now free from the disease. But, further north, in Andhra Pradesh, Gujarat and Maharashtra States the disease is prevalent and a pilot scheme to vaccinate and brand about 12 million cattle and buffaloes has been in operation since October 1954.

Nearly  $24\cdot83$  million animals were vaccinated raising the total number of animals covered under the Mass Vaccination Campaign to 150 million and under various follow up measures to 90 million. As a result the disease incidence which was originally responsible for about 8,000 annual outbreaks taking tell of nearly  $0\cdot2$  million animals was brought down in 1965 to only about 300 outbreaks with about 3,000 deaths.

### Research and Educational Institutions

The Indian Veterinary Research Institute having centres at Uttar Pradesh, Izatnagar, and at Mukteswar near Bareilly, supplies the veterinary demands of India for sera and vaccines. Problems of sheep and wool are investigated at the Central Sheep and Wool Research Institute, Malpura (in Rajasthan).

Research in dairying is done at the National Dairy Research Institute, Karnal (Haryana) and at its southern regional station at Bangalore (Mysore). Other Institutes are the Agricultural Institute, Allahabad, The Indian Veterinary Research Institute, Izatnagar, National Dairy Research Institute, Karnal and the Central Sheep and Wool Research Institute, Malpura. The eight agricultural universities already established invariably contain animal husbandry wings.

There are 21 Veterinary Colleges in India, one each at Hyderabad, Tirupathi (Andhra Pradesh); Gauhati (Assam); Patna and Ranchi (Bihar); Anand (Gujarat); Trichur (Kerala); Jabalpur and Mhow (Madhya Pradesh); Madras (Tamil Nadu); Bombay, Nagpur (Maharashtra); Hebbal (Mysore); Cuttack (Orissa); Hissar (Haryana); Bikaner (Rajasthan); Mathura, Nainital and Izatnagar (Uttar Pradesh); Kalyani and Calcutta (West Bengal).

### Animal Husbandry Research

Coordinated scheme on cross breeding of cattle in hilly and heavy rainfall areas of the country with Jersey semen has been in operation at 8 centres in different parts of the country, while the scheme for development of hill cattle by cross breeding with Jersey was in operation in 11 States.

Research in Animal Sciences hereafter will be promoted through coordinated projects.

Nine new comprehensive All India Coordinated projects with multi-disciplinary approach have been prepared for cattle, buffaloes, sheep and goats, pigs and poultry to be included in the Fourth Five Year Plan.

### LIVESTOCK STATISTICS

The following table shows the estimates of livestock population for 1966.

(In thousands).

									(111 th	ousands).
Area	A mar		Cattle	Buffaloes	Sheep	Goats	Horses & Ponies	Other Livestock	Total Livestock	Poultry
STATES		100			No.			To the letter		Top Riv
Andhra Pradesh			12,341 (-0·03)	6,791 (—2·3)	8,004 (—4·3)	3,758 (—11·5)	48·9 (—22·0)	650-6	31,594 (-3·2)	14,715 (—9·4)
Assam			6,562 (+1·1)	579·7 (—0·6)	73 (+36·9)	1,594 (—15·4)	45·8 (+161·0)	425.5	9,279 (-2·1)	10,984 (+10·9)
Bengal (West)			12,576 (+9·6)	1,043 (+5·8)	639 (+19·4)	4,835 (7·1)	27 (10·6)	145.6	19,266 (9)	12,818 (8·9)
Bihar	1200		15,156 (—5·9)	3,654 (—1·2)	1,247 (7·8)	7,801 (—9·7)	116 (—12·6)	680.0	28,655 (—6·3)	10,850 (—11·4)
Gujarat			6,544 (—0·2)	3,140 (7·7)	1,652 (11·5)	2,771 (24·6)	70 (—37·8)	159.3	14,338 (6·6)	2,324 (13·5)
Jummu & Kashmir			1,791 (—2·7)	428 (6·8)	1,152 (—0·9)	605 (4·9)	66 (—5·2)	36.3	4,079 (—0·2)	1,535 (—4·7)
Kerala			2,857 (3·8)	471 (—2·9)	11 (—52·5)	1,189 (—9·4)	@(4.4)	112.3	4,641 (—1·2)	9,909 (8·8)
Madhya Pradesh		••	24,645 (—0·5)	5,607 (0·6)	1,015 (0·6)	6,609 (19·3)	150 (—26·1)	453.8	38,478 (2·4)	5,739 (—12·1)
Maharashtra			14,681 (-4·2)	3,029 (—1.9)	2,200 (5·1)	5,104 (—1·5)	100·6 (—3·7)	249.9	25,366 (-2·6)	9,887 (—6·5)
Mysore			9,685 (0·1)	2,946 (—2·6)	4,748 (—0·4)	2,784 (—3·0)	65 (56·5)	256.99	20,485 (-0·9)	8,277 (—6·4)
Orissa			10,316 (5·2)	1,262 (17·4)	1,182 (18·9)	3,045 (27·9)	66 (13·3)	193.6	16,065 (10·6)	7,681 (17·3)
Punjab			6,024	5,094 (15·1)	1,196 (29·3)	1,390 (13·3)	68 (—10·1)	546	14,319 (8·1)	2,209 (29·9)
Rajasthan			13,129 (—0·1)	4,206 (4·7)	8,805 (19·6)	10,561 (31·2)	63 (—32·7)	936	37,701 (12·5)	876 (22·1)
Tamil Nadu			10,859 (0·3)	2,724 (5·0)	6,621 (—7·5)	3,771 (10·0)	17 (—15·9)	576	24,569 (—0·3)	11,226 (—0·6)
Uttar Pradesh		••	25,986 (—1·1)	11,438 (4·2)	2,521 (2·4)	8,126 (2·1)	231 (—21·9)	1,517.1	49,821 (0·8)	$3,647$ $(12 \cdot 1)$
Delhi			82 (—13·1)	104 (3·7)	5·7 (—39·9)	13 (—29·7)	7 (20·1)	15.4	227 (—9·1)	129 (106·2)
Himachal Pradesh			1,244 (2.7)	224 (7·8)	729 (10·2)	569 (-4·9)	9·0 (58·3)	8.7	2,785 (3·4)	146 (61·2)
Manipur		.1.	288 (—1·7)	47 (—13·5)	8 (96.7)	12 (—34·2)	0·8 (51·8)	86	444 (—12·9)	$(-27 \cdot 0)$
Nagaland			76	4	-	12	0.5	121	215	438
Pondicherry			71 (—10·1)	10 (—7·0)	7 (—11·8)	32 (—9·4)	@(-43.8)	2	123 (—9·3)	107 (5·4)
Tripura			553 (11·8)	48 (14·0)	(—34·5)	124 (—21·4)	1·2 (13·7)	31	761 (3·5)	637 (—5·7)
Andaman & Nicobar I	Islands		10 (37·1)	8.1	@(-27.8)	10 (17·6)	@	27	497 (28·7)	98·6 (28·7)
Laccadive, Minicoy &	Amind	livi		States and States	E A STUME				0.0	18.5
Islands			$(71 \cdot 0)$			$5 \cdot 4 \\ (42 \cdot 3)$	(Section)		6.8 (47.8)	(22.6)
Dadra & Nagar Havel	i		38	3	@	12.7	@	@	55	39
TOTAL INDIA			175,987 (+0·2)	52,876 (+3·3)	42,010 (+4·4)	64,549 (+6·1)	1,148 (—13·5)	7,157	343,727 (+2·2)	(+0.7)

<sup>1966</sup> figures are tentative and subject to revision (and do not contain census data for Goa, Daman & Diu and NEFA). @ Below 500.

Figures given in the bracket (for 1966 items) are percentage increase/decrease over 1961 census figures. Census of Nagaland was carried out for the first time only in 1966.

## IRRIGATION

THE net area under irrigation in India during 1965–66 and 1966–67 was 26·691 and 27·514 million hectares and the gross area 31·171 and 32·693 million hectares respectively. Net sown area in 1965–66 and 1966–67 was 136·135 and 137·03 million hectares respectively. The irrigation potential has gone up from 56 million acres in 1947 to 88 million acres in 1967–68.

About 500 major and medium Irrigation Projects were taken up during the three Plans, which on completion, were expected to irrigate 17.81 million hectares. The benefits from these projects by the end of the Third Plan were expected, however, to be limited to about 7.3 million hectares of additional irrigated area. During 1966-67 a sum of Rs. 114 crores had been spent on irrigation.

Rainfall in the country is unequal and in many areas uncertain necessitating recourse to artificial irrigation. The distribution is as follows:

Range	(in million acres)	Percentage
Area between 0-30 inches Area between 30-50 inches Area between 50-75 inches 75 inches and above	339·2 143·9	29·6 42·0 17·8 10·6
Total area	806.3	100.0

The total capacity of India's canals is over 220,000 cusecs, and the canals are over 67,500 miles in length. The total amount of annual flow of water in the Indian Union is 1,360 million acre feet, distributed as follows:—

1. Rivers (excluding the Indus system) falling into the Arabian Sea, 251.5; 2. Rivers (excluding Ganga and Brahmaputra systems) falling into the Bay of Bengal, 334.0; 3. Indus basin in India, 64.4; 4. Ganga System, 397.1; 5. Brahmaputra System, 309.0.

Out of the water resources of 1,360 million acre feet owing to physiographical conditions only about a third, about 450 million acre feet are utilisable.

## UTILISATION OF IRRIGATION POTENTIAL

The outlay on major and medium irrigation projects, the potential and utilisation respectively are as follows:—

Gross area in million hectares

At the end of		Outlay in Rs. (Crores)	Poten- tial	Utilisa- tion
1st Five Year Plan		300	2.6	1.3
2nd Five Year Plan .		380	4.6	3.4
Brd Five Year Plan .		580	6.9	5.5
ince en		130	7.4	6.1
1007 00	The state of the s	133	8.2	6.8
1967–68	N. W. Line	143	9.0	7.4
Total		1,666	38.7	30.5

Names of major irrigation projects taken up in the Third Plan, estimated cost on Rs. million and ultimate irrigation in million acre respectively: ANDHRA PRADESH: Pochampad (406·1); (0·57); BIHAR: Chandan Reservoir (59·0); (0·14); MADHYA PRADESH: Gasdeo (90·0); (Water supply scheme); MYSORE: Malaprabha (200·0);

(0·30); Upper Krishna (611·0); (0·60); PUNJAB: Beas Project Unit—I (Sutlej Beas Link) (108·0); (0·80); Beas Project Unit—II (Pong Dam) (297·0); (0·79); RAJASTHAN: Beas Project Unit (Sutlej Beas Link) (18·0); (Under Rajasthan Canal); Beas Project Unit—II (Pong Dam) (631·0); (Under Rajasthan Canal); TAMIL NADU: Chittar Pattanamkal (77·6); (0·05); UTTAR PRADESH: Western Gandak Canal (363·9); (0·60).

### Drought

Adverse weather particularly in recent years has affected long areas in the country to severe drought. Eastern U.P. and South Bihar are among the worst affected areas. Measures for drought prevention and mitigation viz. irrigation projects are being examined to be taken up in the Fourth Plan. A number of pumped canal schemes have also been prepared and are under examination.

#### MINOR IRRIGATION

Minor irrigation works are works that can be conceived and handled to a large extent by the local people themselves, and individually cost Rs. 10 lakhs or less.

Minor irrigation schemes include construction of open wells, tanks and minor drainage schemes; embankments which are important from the point of view of food production and checking intrusion of salt water in coastal areas; restoration of old tanks, stream diversion schemes; and installation of pumping appliances and improvement of water supply from wells and storage dams. There are also such works as construction of kuhis in hilly areas, filter points in coastal alluvium and installation of improved lift appliances, Persian wheels and pumping sets on wells. Tubewells also form part of minor irrigation works.

## TANKS AND WELLS

Tankirrigation is very important in Andhra, Tamil Nadu, Orissa and Uttar Pardesh where over 3·1, 2·0, 1·2 and 1·0 million acres respectively, are irrigated by tanks. Bengal, Mysore, Bihar, Gujarat and Maharashtra have over half a million acres under tank irrigation.

Wells: Wells are mainly of two types, i.e. surface or sub-surface. Unlike tanks, they can be constructed irrespective of topographical and geological limitations, provided sub-soil water is in reach.

Well irrigation commands over 5.9 million acres in Uttar Pradesh and 2.3 million in Punjab,\* Rajasthan, Gujarat and Maharashtra. It is also of considerable importance in Tamil Nadu, Andhra, Madhya Pradesh and Bihar where over 1 million acres are irrigated by wells.

Pumping sets of high efficiency have come into common use for water lifting and also for draining.

#### Tubewells

A tubewell irrigates about 400 acres while a surface well barely 5 acres.

A centrally sponsored scheme for ground water surveys and investigation has been initiated.

During 1968-69 Exploratory Tubewell Organisation (ETO) planned to carry out ground water exploration in Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, M.P. and Tamil Nadu to construct 90 different wells (18 in Gujarat and 72 in Bihar) and to sink 72 exploratory bores and 45 observation bores. By the end of June 1969 E.T.O.

<sup>\*</sup> Composite State.

completed 12 exploratory bores and 51 deposit and observation bores. A number of schemes for utilisation of ground water for integrated agricultural development are being considered by the Agricultural Refinance Corporation (A.R.C.) in very many states.

#### RESEARCH

There are now nineteen stations in India, dealing with irrigation research problems:—

Andhra Pradesh Engineering Research Laboratories, Hyderabad, Andhra Pradesh; Bhakra Dam Project Laboratory, Nangal, Punjab; Bihar Institute of Hydraulic and Allied Research, Khagaul, Patna, Bihar; Central Soil Mechanics & Concrete Research Station, New Delhi; Concrete & Soil Research Laboratories, Madras; Central Water & Power Research Station, Poona, Maharashtra; Damodar Valley Corporation, Maithon, Dhanabad, Bihar; Gujarat Engineering Research Institute, Baroda, Gujarat; Hirakud Research Station, Hirakud, Orissa; 'Indian Institute of Science, Bangalore, Mysore; Irrigation Research Station, Poondi, Tamil Nadu; Kerala Engineering Research Institute, Peechi, Kerala; Koyna Project Research Laboratory, Koyna Nagar, Maharashtra; Land Reclamation, Irrigation & Power Research Institute, Nasik, Maharashtra; Mysore Engineering Research Station, Krishnarajasagar, Mysore; River Research Institute, Calcutta, West Bengal; River Research Station, Chandmari, Gauhati, Assam; UP Irrigation Research Institute, Roorkee, U.P.

### FLOOD CONTROL AND SOIL CONSERVATION

Since 1954 when the flood control programme was inaugurated on a coordinated basis, 6.4 million hectares would have been covered by flood protection measures by March 1969.

The outlay on flood control, drainage and anti-water logging schemes so far is as follows:—(in Rs. Crores) First Five Year Plan: 13; Second Five Year Plan: 48; Third Five Year Plan: 82; 1966-67: 14; 1967-68: 13; 1968-69 (anticipated) 14; 1969-70 (contemplated): 14.

The total damage due to the floods during the 1968 season according to the assessment made so far was about Rs. 170 crores. Nearly half of this was accounted for by West Bengal alone. A total of 73 lakh hectares including a cropped area of 23 lakh hectares was affected. 3,436 human lives and about 1.39 lakh cattle heads were lost.

The 1968-69 flood damage was very high in Assam, Bengal, Bihar, Gujarat, Kerala, Orissa and Rajasthan resulting in damages amounting to Rs. 166 crores.

Steps are being taken to set up flood forecasting units in different parts of the country under a central programme.

Soil Erosion: The sea erosion problem received due attention and a Beach Erosion Board was set up to tackle the problem on a coordinated and scientific basis. Up to the end of the three Five Year Plans Rs. 63 million were spent on anti-erosion schemes in Kerala and a length of 58 km. was covered by the protective works. About 11 km. more of sea coast are likely to be protected at a cost of Rs. 19 million.

#### RIVER VALLEY PROJECTS

The major river valley projects are as follows :-

(1) Beas Project, (2) Bhakra-Nangal Project, (3) Hirakud Project, (4) Damodar Valley Project, (5) Tungabhadra Project, (6) Kosi Project, (7) Chambal Project, (8) Nagarjunasagar Project, (9) Koyna Project, (10) Rihand Project, (11) Bhadra Reservoir Project, (12) Kakrapara Project, (13) Machkund Project, and (14) Mayurakshi Project. Irrigation Committee: This Committee is being constituted to review development of irrigation in the country to report on the future integrated development of surface and ground water resources for maximising agricultural production.

Below we give notes on some individual projects.

Beas Project: Is a joint venture of the States of Punjab, Haryana and Rajasthan and is being executed by the Beas Construction Board under the control of the Central Government. Estimated cost Rs. 309·77 crores. Object: To harness the waters and power potential of the River Beas. On completion the project will facilitate the irrigation of 6·5 million acres of land in Punjab and Rajasthan and generate 13,50,000 K.W. of power besides augmenting the capacity of the Bhakra Power Generation System by 1,48,000 K.W. The irrigation and power facilities to be provided will give an agricultural output worth Rs. 20 crores annually.

The project comprises two units Beas Sutlej Link Project and Beas Dam.

Beas Sutlej Link Project: Estimated cost Rs. 146.87 crores. Consists of 62 metres (200') High Rockfill Diversion Dam at Pandoh, about 21 kms. from Mandi in Himachal Pradesh. Expenditure incurred till end of 1968-69: Rs. 59.16 crores. Entire system is designed for diverting 7,500 cusees of water from River Beas. The Power Plant at Dehar will have six units of 165 M.W. capacity each and will generate 990,000 K.W. of electric energy.

Beas Dam at Pong: Envisages a 440 ft. high earth core, gravel shell dam near Pong village and a power house. Estimated cost: Rs. 162·90 crores. The reservoir created at Pong will impound 6·60 million acre feet of water out of which 5·60 million acre feet will be live storage capacity for irrigating the areas in Punjab, Haryana and Rajasthan. The power plant will have six units each capable of generating 60,000 K.W. of electric energy. Approximately Rs. 68·84 crores have been spent till the end of 1968-69. The dam is planned for completion in 1973.

Bhadra Project (Mysore): Bhadra Reservoir is one of the major irrigation projects in the Krishna Basin. The dam is situated in Lakkavalli village in Chickmagalur district. The reservoir has two canals the left bank canal and the right bank canal. The two canals will irrigate a total area of 2,44,663 acres in Chickmagalur, Shimoga, Chitradurga and Bellary districts. The total command area of the project is 3,33,300 acres.

The anticipated expenditure by the end of March 1970 is Rs. 2,995 lakhs. Potential created as of June 1969 is 2,52,000 acres. The work is almost complete.

Bhakra Nangal Project: (Bhakra Dam is located in H.P., and Nangal Dam and Canal in Punjab). The Bhakra Nangal Project is the biggest multipurpose river valley project in Asia and has the following main components:—(1) 740 feet high straight gravity concrete Dam at Bhakra, eight miles from Nangal, with two Power Houses at its base, one on each bank of the River. (2) A diversion Dam at Nangal, 62 miles North of Chandigarh. (3) Forty mile long Hydel Channel from Nangal to Rupar with two low head power houses—Ganguwal and Kotla. (4) A widespread network of transmission lines with series of Grid Sub-stations. (5) 108 miles of Bhakra Main Canal and 2,790 miles long canal branches and distributaries spread over in three States—Punjab, Haryana and Rajasthan.

With the commissioning on 17-4-1969 of the Right Bank Power House comprising 5 units of 1,20,000 K.W. each the work on the entire project is completed.

An ultimate power potential of 12,04,000 K.W. is expected by 1972 when Beas water will come into Gobind Sagar through Beas Sutlej Link. The States that will benefit are the Punjab, Haryana, Rajasthan, Himachal Pradesh, Jammu and Kashmir and Delhi.

The project commands  $6\cdot 5$  million acres of new land for irrigation and will improve  $3\cdot 5$  million acres of land already under irrigation.

The total expenditure incurred till the end of March, 1969 was Rs. 175·82 crores against the sanctioned estimate of Rs. 175·14 crores excluding the cost of Right Bank Power House which is estimated to be Rs. 59·70 crores which includes the cost of transmission lines.

The Nangal Dam, the Hydel Channel and the Bhakra Canal have already been completed.

The commitments from this project are Nangal Fertilizers 1,75,000 K.W.; Delhi 80,000 K.W.; Rajasthan 66,880 K.W.; Kashmir 10,000 K.W.; Punjab 203,350 K.W.; Haryana 147,380 K.W.; Chandigarh 13,060 K.W. and Himachal Pradesh 14,330 K.W.

The increase in foodgrains as a result of the irrigation from the project is expected to be 8,50,000 tons a year. Other additional yields that will accrue from the project are: Sugarcane 15,00,000 tons, cotton 6,00,000 bales and pulses and oilseeds 36,000 tons. All this is worth Rs. 200 errores.

Damodar Valley Project (Bihar and West Bengal): The Damodar Valley Project which is to benefit the States of Bihar and West Bengal, has as its main features the construction of (a) multi-purpose storage dams with hydroelectricity plants, (b) an irrigation project with a network of irrigation canals and distributaries measuring 1,550 miles including an 85 mile long irrigation-cum-navigation canal, (c) thermal power stations and the associated transmission and distribution facilities.

The ultimate benefits include (a) effective flood control of the Damodar River, (b) irrigation of 9.73 lakh acres including 2.20 lakh acres of old irrigated area in the kharif season and 0.55 lakh acres in the rabi season resulting in an additional yield of rice, rabi crop and jute, (c) the installation of 1,061.5 M.W. of electric power (Projects taken up to Third Plan), (d) cheap transport facilities through the navigation canal carrying an annual traffic through the canal of coal, sand, chemicals, food-grains etc. to the extent of nearly 2 million tons, (e) efficient drainage of about 700 square miles of water-logged area in the lower valley in West Bengal, (f) prevention of soil erosion by afforestation, (g) land reclamation and improvement, (h) anti-malarial measures and public health promotion works and (i) development of fishery, tourism etc.

The first phase of the D.V.C. Project comprises (1) a thermal power station of 172·5 M.W. capacity at Bokaro, Bihar; (2) Tilaiya dam with a power station of 4 M.W. in Hazaribagh district, Bihar; (3) Konar Dam 24 miles from Hazaribagh; (4) Maithon Dam with a power station of 60 M.W. in Dhanbad District (Bihar); (5) Panchet Hill Dam with a power station of 40 M.W. (Initial) in Dhanbad District (Bihar); (6) the Durgapur Barrage and Canals in the districts of Burdwan, Bankura, Hooghly and Howrah (West Bengal) and (7) the transmission and distribution system.

The Bokaro Thermal Power Station has now an installed capacity of 247.5 M.W.

The Maithon, the Panchet and the Tilaiya Power Stations have now an aggregate installed generating capacity of 104 M.W.

Irrigation projects comprising Durgapur Barrage, two main canals and distributaries totalling 1,550 miles of canals have been completed.

The Durgapur Thermal Power Station has now an installed capacity of 290 M.W. (2 × 75 M.W. + 1 × 140 M.W.) and the Chandrapura Thermal Power Station has now an installed capacity of 420 M.W. (3 × 140 M.W.) out of 1061 M.W. of electric power generating capacity, the thermal stations contribute 957 M.W. and hydel stations 104 M.W. Besides the three units, the work for two more units of 120 M.W. each at Chandrapura has been taken up and the work is in progress.

The D.V.C. power system supplied electrical energy through an expanded network of transmission lines right up to Calcutta in the east and up to Mogalsarai in the west, 3,717 million units in 1966–67, 3,725 million units in 1967–68 and 3,839 million units in 1968–69.

The annual gross revenue from power during 1966-67, 1967-68 and 1968-69 was Rs. 21.00 crores, Rs. 22.65 crores and Rs. 23.70 crores respectively.

The four dams in the D.V.C. system would provide irrigation for 9.73 lakh acres of kharif and 0.55 lakh acres of rabi lands and also supply water for industrial and domestic uses. During kharif seasons of 1967-68 and 1968-69 water from Durgapur Barrage was supplied to irrigate an area of 7.01 and 7.15 lakh acres respectively. During 1968-69, an irrigational potential of 7.85 lakh acres was created.

The annual gross revenue from irrigation for the years 1966-67, 1967-68 and 1968-69 is Rs.  $0\cdot94$  erore, Rs.  $1\cdot04$  erores and Rs.  $1\cdot14$  erores respectively.

The Panchet and the Maithon dams have controlled several major floods in the lower valley.

The estimated cost of the project (including Fourth Plan) is about Rs. 263.56 crores. The aggregate capital expenditure on the various projects upto the end of March 1969 is about Rs. 225.81 crores.

The total receipts of D.V.C. during 1969-70 have been estimated at Rs. 24·28 crores and the total estimated revenue expenditure, including provisions for the development rebate reserve and the general reserve on the power side only during 1969-70 works out to Rs. 26·18 crores.

Hirakud Dam Project (Orissa):—This project is the biggest multipurpose River Valley Project on river Mahanadi in Orissa State and is situated near Sambalpur. The main functions of the project are flood control, irrigation and power. The project comprises the Hirakud Dam, Hirakud Canal System, Burla Power House and the Chiplima Power House.

The total culturable commandable area under Hirakud Irrigation in Sambalpur and Bolangir Districts is 3·8 lakhs of acres and the total annual irrigation potential is 6·00 lakh acres. The Hirakud Dam Project also provides regulated supply for perennial irrigation of about 9 lakhs of acres in Mahanad Delta in the districts of Cuttack and Puri.

The Burla Power House has got 6 power units of total installed capacity of 198 M.W. and Chiplima Power House has 3 power units of total installed capacity of 72 M.W., the total installed capacity being 270 M.W. The project provides power to many industries and the rural areas of Orissa.

Mahi Scheme: The revised estimated cost of the project has been worked out to be Rs. 495 lakhs. The scheme when completed is likely to irrigate 30·8 thousand hectares of land.

Tungabhadra Project (Andhra and Mysore): The project is now being executed by the Tungabhadra Board and the Governments of Andhra Pradesh and Mysore.

The Tungabhadra Dam across the river Tungabhadra at Mallapuram in Bellary District (Mysore State) is 8,006 feet long and 162 feet high at the deepest foundation and 116 feet high on an average above the river bed. The reservoir extends to an area of 146 square miles and has a capacity of nearly 3·1 million acre feet at the full reservoir level of 1,633.

The Tungabhadra Project has three main canals, one on the left bank side and two on the right bank side. They have together an irrigation potential of 12,72,910 acres (5,15,121-21 hectares).

Left Bank Side: There are two canals on the left side viz., High Level Canal and the Main Canal. The Left Bank Main Canal is 141 miles in length and has a capacity of 7,000 cusecs at head for power development, of which 3,100 cusecs are for irrigation of 5,80,000 acres (2,34,714.4 hectares) of land in Raichur District of Mysore State.

Right Bank Side: There are two main canals on the right bank side of the river viz., the High Level Canal and the Power Canal.

The Power Canal carrying 2,500 cusecs feeds the Power House at Hampi about 20 kilometers below for generation of power. The Low Level Canal which begins from this point is 217 miles long and has a capacity of 1,800 cusecs at head and irrigates 92,345 acres (37,370,17 hectares) of land in Mysore State and 1,48,725 acres (60,186 hectares) in Andhra Pradesh, the total being 2,41,070 acres (97,556·17 hectares).

The High Level Canal which is targeted to be completed by June 1970, is 122 miles (196·33 kilometers) in length and has a capacity of 4,000 cusecs at head on completion. The canal will irrigate 1,00,000 acres (40,468 hectares) in Mysore State and 1,19,115 acres (48,203·45 hectares) in Andhra Pradesh in the first stage and additional 1,00,000 acres (40,468 hectares) in Mysore State and 1,32,725 acres (53,711·25 hectares) in Andhra Pradesh after completion of Second Stage. The total irrigable area will be 2,00,000 acres (80,936 hectares) in Mysore State and 2,51,840 acres (1,01,914·70 hectares) in Andhra Pradesh.

Hydro Electric Scheme: The Hydro Electric Scheme on the southern side consists of two Power Houses with four generators in each power house, each of 9,000 K.W. capacity making an aggregate of 72,000 K.W. The total installed capacity of the Scheme is at present 72 M.W.

On the northern side, there is one power house near the Dam with 3 units of 9,000 K.W. capacity each. It is proposed to have one more unit of 9,000 K.W. capacity at the Dam Power House and three more power houses on the canal. All the power houses taken together will generate 1,00,500 K.W. of power.

A 220/132 K.V. sub-station at Hampi Power House and a single circuit 220 K.V. line from Lingapur (Munirabad) to Hampi Power House are under construction to interconnect the Andhra, Mysore, and Tungabhadra systems.

Kosi Project (Bihar): Total expenditure on the project (old scheme) up to the end of March 1969 was Rs. 73.25 crores. The Kosi canal systems on the eastern and western sides of the river have been designed to provide annual irrigation to an area of about 26 lakh acres in the districts of Saharsa, Purnea, Darbhanga and Monghyr of Bihar and Saptari of Nepal.

Chatra Canal System: As part of India's Aid to Nepal the Chatra Canal Project has been taken up. The canal will take off at 30 miles upstream of Kosi Barrage and will irrigate annually 2.12 lakh acres in the Morang and Saptari districts of Nepal. This scheme will cost about Rs. 8.91 crores (revised estimate). This scheme, when completed, would yield an additional produce of 39 lakh maunds per year valued at Rs. 4.75 crores.

Schemes to extend irrigation facilities to an area of 3.97 lakh acres between the Kosi river and the original command of Eastern Canal system has been taken up at an estimated cost of Rs. 972·28 lakhs (revised estimate) including the cost of village channels. 82·30 per cent of the work had been completed up to March 1969.

The final solution of Kosi lies in the construction of dams in the hilly region of the river across the Kosi in Nepal.

### Rajasthan Canal

(For details see under Rajasthan State.)

Nagarjunasagar Project (Andhra Pradesh).—The project is situated near Nandikonda village in Miryalguda Taluk of Nalgonda district. The project comprises the construction of a gravity type masonry dam — the tallest and largest masonry dam in the world — two irrigation canals on either side of the river and a power house with 8 generating units each with 50,000 kW. installed capacity. The main dam, when completed, will be 409 ft. high (ultimate stage), 360 ft. wide at the base and about a mile long. It will be flanked on either side by compacted earth dams. Each flanking dam will also be about a mile long. A 28-ft. roadway will run on the top of the dam linking the flanks over the central spillway. Eight penstocks, 16 ft. in diameter will be installed in the dam.

First phase: The first phase (now in execution) of the project is expected to irrigate 20.54 lakh acres, partly for paddy and sugarcane and partly for cotton, chillies, groundnut, maize, jowar and other millets. The quantity of foodgrains production anticipated is eight lakh tons per annum under the first phase of the scheme and 12 lakh tons in the ultimate phase.

Nagarjunasagar Dam: The dam, when completed, will impound the waters of the Krishna in a 110 sq. mile manmade lake, the biggest in India and the third largest in the world. The ultimate storage capacity of the reservoir is estimated at about 9.37 million acre feet of water, thus dwarfing the Bhakra reservoir of 7.4 million acre feet of capacity.

Nagarjunasagar right canal: Under the first phase of the project (now in execution) the right canal will run to a length of 126 miles. The right canal will irrigate about 11.74 lakh acres, benefitting large tracts of land in Guntur, Nellore and Kurnool. In the ultimate phase, the canal will extend to a length of 247 miles.

Nagarjunasagar left canal: Under the first phase of the project (now in execution) the Left Main Canal will run to a length of 111 miles. The canal will irrigate about 8.80 lakh acres. In the ultimate stage it will extend to a length of 140 miles in Nalgonda and Khammam districts surving the needs of Miryalguda and Huzurnagar taluk of Khammam district and Nandigama, Tiruvur, Nuzvid and Gannavaram taluks of Krishna district.

#### GANDAK PROJECT

It is one of the major projects in which India and Nepal are collaborating as neighbours. Within India, it is an inter-State project in which Bihar and Uttar Pradesh are joining hands. It was expected to be ready by June 1968. The project was expected to yield benefits to seven lakh acres during 1966-67, which would go up to three million acres by 1970-71.

### NET AREA IRRIGATED BY SOURCES, 1965-66\*

The following table gives the provisional figures in thousand hectares.

STATES AND TERRITORIES	CANALS			Tanks	Tube-	Wells	Other	Total
STATES AND TERRITORIES	Govt.	Private	Total	Tanks	wells	Wells	Sources	Total
Andhra	1,209	17	1,226	1,189	31	424	108	2,978
Assam <sup>1</sup>	72	292	364	-	-		248	612
Bengal (West) <sup>2</sup>	514	388	902	328	100	16(a)	184	1,430
Bihar	613	19	632	175	83	206	895	1,991
Gujarat <sup>3</sup>	110	1	111	22	668		36	837
Jammu and Kashmir <sup>3</sup>	65	214	279	1	(b)	2	6	288
Kerala	169	8	177	60		4	121	362
Madhya Pradesh	461	1	462	118	2	343	52	977
Maharashtra <sup>3</sup>	215	33	248	213		683(a)	86	1,230
Mysore	356	5	361	325		163(a)	128	977
Orissa <sup>5</sup>	197	28	225	495	-	38(a)	219	977
Punjab†	2,245	49	2,294	8	250	919	80	3,551
Rajasthan	487		487	203	6	1,017	40	1,753
Tamil Nadu	798	1	799	903	5	654	38	2,399
U.P	2,291	9	2,300	391	905	2,000	279	5,875
Delhi	14	that he was	14	2	16			34
Himachal Pradesh‡	(b)		(b)	(b)		(b)	39	39
Maninum2	(0)	68	68		1000	1 1 1		68
m.:	MADEL EAST	ADDITE P		2	100 Land	The same	16	18
NT14	NA WALL	Carolina de la composición della composición del	MA A THE	Market Land		The In	12	12
Don diah ower	11	La Sala	11	6	8	(b)	(b)	25
Andaman and Nicobar			10 L					
Laccadive and Amindivi Islands		The state of the s	1000					_
Con Daman and Ding	9-11-11			TW TO THE		3,100/4,30	8	8
All India	9,827	1,133	10,960	4,441	1,960	6,485	2,595	28,441

\* Latest available. ¹ Relates to the year 1953-54. ¹ Figures are for 1962-63. ² Relates to 1964-65. ⁴ Relates to 1956-57. ¹ Relates to 1955-56. † Composite State. ‡ Before reorganisation in Nov. 1966. (a) Includes tube-wells too. (b) Less than 500 hectares.

### Crop-wise Irrigation

The following are the all-India figures of crop-wise irrigation figures in 1965-66 ('000 hectares): Rice 13,114; Jowar 714; Bajra 318; Maize 767; Ragi 350; Wheat

5,238; Barley 1,316; Pulses 832; Sugarcane 2,008; Groundnut 244; Cotton 1,264; Gross irrigated area (all crops) 30,922.

# INSTITUTIONS FOR THE BLIND IN INDIA

Andhra Pradesh: Government School for the Blind, Cuddapah; Lutheran School for the Blind, Guntur District; Government School for the Blind, Malakpet, Hyderabad; Disabled Children's School for the Blind, Amravati Road, Guntur; School for the Blind, Kottagudan; National Association for the Blind, Kottagudan; National Association for the Blind, Andhra Pradesh Branch; Andhra's Blind Model School, Rest House Road, Bhimavaram, West Guntur District; Indian Conference of Social Work Building, Red Hills, Hyderabad; National Association for the Blind (Andhra Pradesh Branch), Red Hills, Hyderabad.

Assam: Blind School attached to the Sreemantha Shankar Mission, P. O. Nowgong, New Gond District.

Bihar: Home for the Homeless, Muzaffarpur; Maharani Adhirani Kameshwari Priya Andh Vidyalaya, Darbhanga; Netraheen Chhatra Vidyalaya, Mundichak, Bhagalpur; S.P.G. Mission Blind School, Ranchi; Patna Blind School, P. O. Kadam Kuan, Patna; Blind Relief Society, Dhanbad; Netrabihin Kalyan Sangh and Nissahaya Balak Grih, Dayalniwas, Sinha Library Road, Patna; St. Michael's School for the Blind, Ranchi.

Delhi: Blind Relief Association, Kitchlew Marg, New Delhi-11; Blind Social Welfare Society, 96, Panchkuin Road, New Delhi; Institution for the Blind, Panchkuin Road, New Delhi; Rashtriya Virja Nand Andh Kanya Vidyalaya, New Rajinder Nagar, Shankar Road, New Delhi; National Society for the Prevention of Blindness, C/o Dr. L. P. Agarwal, All India Institute of Medical Sciences, Ansari Nagar, Delhi 6; Delhi Public Library Braille Section, New Delhi-5; 12, Nizamuddin East, New Delhi-13.

Gujarat: Andh Kanya Prakash Grih (Light House for Blind Girls), Narayanapura, Ellis Bridge, Ahmedabad; Andh Mahila Vikas Grih, Gondal Road, Near Swami Narayan Gurukul, Rajkot; Blindmen's Association, Maganbha Kendra, Kameswari Poll, Ahmedabad; Krishnakumarsinhji School & Home for the Blind, Bhavnagar, Saurashtra; School for the Blind, Ellis Bridge, Ahmedabad; Ambaben Maganlal Andhyan Shala, Surat; Govt. School for the Blind, Baroda; School for the Blind, Visavadar, Saurashtra; The Tata Agricultural & Rural Training Centre for the Blind, Phansa; The Kalpana Nursery School and Home for Deaf, Dumb and Blind Children, C/o School for Deaf Mutes and the Blind, Navrangpura, Ahmedabad; Andh Abhyudaya Mandal, Bhavnagar; Adult Training Centre for the Blind, Navrangpura, Ahmedabad; A.M. Andhjanshala, Race Course, Athwa Lines, Surat; The Baroda Association for the Blind, Mahajan Lane, Raopura, Baroda; Dohad Andh Jan's Vidyalaya, Dohad; Meghji Pethraj Blind School, Junagadh; Blind Men's

Association (Gujarat State Branch), C/o Adult Training Centre for the Blind, Behind University Professors' Quarters, University Campus, Navrangpura, Ahmedabad 9; Gujarat Rajya Nayanjot Raksha Samiti, Ahmedabad; Shri Andh Sarvodaya Mandal, Gondal Road, Near Swaminarayan Gurukul, Rajkot; M. T. Doshi Andh Vidyalaya, Surendranagar; Maghij Petraj Blind School, Junagadh; Shri Bharatiya Pragna Chakshu Gurukul, Porbunder.

Haryana: Blind Relief School, Hissar; Govt. Institute for the Blind, Panipat; S. D. Institute for the Blind, Ambala Cantt; Training Centre for the Adult Blind, Sonepat; Home for the Blind, Hissar.

Jammu & Kashmir: Residential School for the Blind, Ved Mandir, Jammu; Shri Abedananda Home for the Blind, Srinagar, Kashmir.

Kerala: Kerala Blind Welfare Association, Mankadapallipuram, Malappuram; School for the Blind, Kunnamkulam, Talapally, Trichur Dt.; School for the Blind, Deaf & Dumb, Trivandrum; Rotary School for the Blind, Alwaye; School for the Blind, Olessa, Kottayam; National Association for the Blind (Kerala State Branch), C/o Government Ophthalmic Hospital, Trivandrum 1.

Madhya Pradesh: Madhya Pradesh Welfare Association for the Blind, 83, Bozanket Market, Pandey's Building, Indore; Shri Madhav Andh Ashram, Nai Sarak, Laskar, Gwalior; School for the Blind attached to the Christian Hospital & Dispensaries, Mungeli, Bilaspur Dt.; Deaf, Dumb & Blind Vidyalaya, Indore; Government Blind and Deaf School, Bhopal; Child Guidance Clinic & Handicapped Children's Colony, 102, Cherital, Jabalpur.

Maharashtra: Blind Welfare Association, Housing Colony, Amravati-2; Blind Boys' Institute, Ajini Ambajari Road, Nagpur; Blind Men's Association, 177/179, Lamington Cross Road, Bombay-7; Blind Relief Association, Congress Bhuvan, Bassein, Thana District; Blind Relief Association, 475-83, Kalbadevi Road. Bombay-2; Dadar School for the Blind, 160, Dadasaheb Phalke Road, Dadar, Bombay-14; Government School for the Blind, Nasik; Haji Allarakha Sonawala Andh & Anath Stree Ashram, 37, Gilbert Hill, Versova Road, Andheri, Bombay-58; Happy Home & School for the Blind, 52, B. D. D. Chawls, Worli, Bombay-18; Industrial Home for Blind Women, 160, Dadasaheb Phalke Road, Dadar, Bombay-14; Kishanlal Jalan Charity Trust, 339-41, Kalbadevi Road, Bombay-2; M. N. Banajee Industrial Home for the Blind, 280, Swami Vivekananda Road, Jogeshwari, Bombay-60; N.S.D. Industrial Home for the Blind, 52, B.D.D. Chawl, Worli, Bombay-18; Poona School & Home for the Blind, Koregaon Park, Poona; Poona Blind Men's Association, 82, Rasta Peth, Poona; Sanjiwani Arogya Sahakari Sanstha Ltd., Virar, Thana Dist.; Rambai Mukti Mission, Kedgaon, Poona District; Victoria Memorial School for the Blind, 73, Tardeo Road, Bombay 7; The Workshop for the Blind, Dr. Annie Besant Road, Worli, Bombay-18; Government School for the Blind, Bhandara; Industrial Institute for the Blind, Deaf & Dumb, Near Tata Parsi Girls' High School, Nagpur; School for the Blind, Deopur, Dhulia; National Association of the Instructors of the Blind, 22, Jal Bungalow, Arab Lane Corner, Grant Road, Bombay 8; School for the Blind, Bodadi, District Nanded.

Mysore: Government School for Deaf and Blind Boys, Mysore; Blind Relief Association, Bijapur; Government School for the Blind, Hubli, Dharwar District; School for the Blind, Mysore; Vocational Institute for Women at Mysore City with a Section for Blind Girls, Mysore; Divine Light School for the Blind, White Field, Bangalore; Government School for the Blind, Kasargod, South Kanara District.

Punjab: Andh Vidyalaya, Amritsar; Bharatiya Andh Hitakarini Sabha, 2212-13, Gurudwara Building, Inside Lohgarh Gate, Amritsar; District Council for the Welfare of the Handicapped, Home for the Blind, Tulsiram Ashram, Ferozepore; Institute for the Blind, Soorma Singh Ashram, Amritsar; Central Khalsa Orphanage and Surma Singh Ashram, G. T. Road, Punjab.

Rajasthan: Government School for the Blind, Adarshnagar, Ajmer; Education Department, Government of Rajasthan, Bikaner; School for the Blind, Bikaner; Phiroze and Noshir Merwanjee Rehabilitation Centre for the Blind, Mt. Abu.

Tamil Nadu: Society for Aiding the Handicapped, 52, Balaja Singh St., Saidapet, Madras; Blind Relief Association, 17, Gang Shala, Pondicherry; Blind Relief Association, 48, Thennamaram Street, Vellore; Government School for the Blind, Poonamalle; Government School for the Blind, Shivpet, Salem; Madras Christian College (Students Service for the Blind), Tambaram, Chingleput Dt.; School for the Blind & Deaf, Cathedral Post, Madras 6; School for the Blind, Palayamkottai, Tirunelveli 2; School for the Blind, Swedish Mission Hospital, Tirupattur, Ramanathapuram Dt.; School for the Blind, Sir T. Desikachariar Building, Puttur, Tiruchirapalli; Rehabilitation Home for the Blind, Rajaji T. B. Sanatorium Compound, Tiruchirapalli; TELC Home & School for the Blind, Moses Gnanambaram Eye Hospital, Coimbatore-1; National Academy of Teachers of the Blind, C/o School for the Blind, Palayamkottai, Tirunelveli 2; Pilot Demonstration Rehabilitation Centre for the Blind, Madras Medical College, Madras-13; National Association for the Blind, (Tamil Nadu Branch), 27/1-Ak Mount Road, Saidapeth, Madras 15; St. Louis Institute for the Deaf and Blind, Madras 20.

Uttar Pradesh: Indumati Andh Shishu Sharanalaya, P. O. Tehri, Dist. Tehri-Garhwal; Ahmedi School for the Blind, Civil Lines, Aligarh; Central Braille Press, Rajpur Road, Dehra Dun; Kashi Seva Samiti, Varanasi; Model School for Blind Children, Rajpur Road, Dehra Dun; School for the Blind (Andh Vidyalaya), 110/26, Nehru Nagar, Kanpur; School for the Blind attached to the Eye Hospital, Sitapur; Sharp Memorial School for the Blind, Rajpur Road, Dehra Dun; Training Centre for Adult Blind, Rajpur Road, Dehra Dun; Kunwarlal Singh Industrial School for the Blind, Kutcheri Road, Mainpuri; Government School for the Blind, Lucknow; Allahabad School & Home for the Blind, P. O. Naini, Allahabad; Madrasa Nabeena, Nageena, Bijnor; Government School, Gorakhpur; Blind Association, 9-C, Civil Lines, Gorakhpur; Blind School, Bhadaini, Varanasi.

West Bengal: Blind Boys' Academy, Ramakrishna Mission Ashram, P. O. Narendrapur, Dist. 24 Parganas; Blind Persons' Association, 174, Shyam Prasad Mookerjee Road, Calcutta 26; Kalimpong Home for the Blind, Kalimpong, Darjeeling District; Mary Scott Home for the Blind, Kalimpong, Darjeeling Dist.; Light House for the Blind, 174, Shyam Prasad Mookerjee Road, Calcutta 26; Ramkrishna Mission Ashram, P. O. Narendrapur, Dist. 24 Parganas; Calcutta Blind School, P. O. Behala, Calcutta-23; Association for the Prevention of Blindness, 94, Chittaranjan Avenue, Calcutta; The National Association for the Blind, 18, Netaji Subash Road, Calcutta-1.

## OVERSEAS COMMUNICATIONS SERVICE

INDIA'S Overseas Telecommunications networks of telegraph, telephone, radio-photo and telex services are managed by the Overseas Communications Service. The administrative Head of the department is the Director-General with headquarters at Bombay.

The Service has 4 gate-way Centres for handling international communications at Bombay, Calcutta, New Delhi and Madras. The network consists of submarine telegraph cable systems from Bombay and Madras and wireless telegraph, phototelegraphs and radio-telephone systems from all the 4 Centres. The submarine telegraph cables as such are owned and maintained by Cable & Wireless Limited, London.

As on 1st November 1969, the Overseas Tele-communications network of India consisted of :—

Direct Wireless Telegraph Services:—With Afghanistan, Australia, United Kingdom (4 independent circuits), Burma, China (2 links: Peking & Shanghai), U.A.R., France, Federal Republic of Germany, Indonesia, Iran, Iraq, Italy, Japan, Kuwait, Nigeria, Poland, Philippines, Roumania, Singapore, Switzerland, Thailand, U.S.A. (2 independent circuits), U.S.S.R., Viet Nam (North), Viet Nam (South), Yugoslavia and Czechoslovakia.

Direct Radio-Telephone Services: —With Aden, Afghanistan, Australia (2 independent circuits), Bahrain, United Kingdom (4 independent circuits), Burma (2 independent circuits), China, Kenya, U.A.R., Ethiopia, France, Federal Republic of Germany, Hong Kong, Indonesia, Iran, Iraq, Italy, Japan (2 independent circuits), Nigeria, Singapore, Poland, Saudi Arabia, Switzerland, Thailand, Kuwait, Uganda, U.S.S.R. and Viet Nam (South).

Direct Radio-photo Services:—With United Kingdom, France, Federal Republic of Germany, Italy, Japan, Poland and U.S.S.R. All these services, with the exception of those with Poland, are operated directly from Bombay, Calcutta as well as New Delhi. The above services, with the exception of those with Japan and Poland are also operated directly from Madras. The services with Poland are operated from New Delhi only. Through these direct connections with international trunk routes, telegraph services are available with practically all the countries of the world. Similarly telephone service is available with a large number of countries in the world as given below.

Switched Radio-Telephone Services:—Abu-Dhabi, Alaska, Algeria, Argentina, Austria, Balearic Islands, Barbados, Belgium, Bermuda, Brazil, British Guinea, Bulgaria, Burundi, Canada, Canary Islands, Central Africa Republic, Ceuta, Chad Republic, Chile, Congo, Cuba, Costa Rica, Cyprus, Czechoslovakia, Denmark, Doha, Dubai, Faroe Islands, Federal Republic of Germany, Fiji, Finland, France, French Sahara, Forbisher Bay (Canada), Gabon Republic, German Democratic Republic, Ghana, Gibraltar, Goosbay Labrador (Canada), Greece, Guatemala, Hawaii, Honduras, Hungary, Iceland, Irish Republic (Eire), Israel, Italy, Jamaica, Jebel Dhana, Jordan, Kenya, Kuwait, Iebanon, Leeward Islands, Libya, Luxembourg, Malawi, Malaysia, Malta, Mauritius, Mongolian Peoples' Republic, Manila, Mexico, Morocco, Muscat, Netherland Antilles, Netherlands, Newfoundland, New Hebrides, New Zealand, Nicaragua, Nigeria, Norway, Panama, Philippines, Poland, Puerto Rico, Qatar, Ras-Al-Khaimah, Rhodesia, Roumania, Ruanda, Ryukyu Islands, Sarawak, Senegal Sierra, Leone, Solomon Islands, Spain, Spanish North Africa, South Africa, South West

Africa, Sudan, Sweden, Switzerland, Tanzania, Tangier, Tariff, Tortola (British Virgin Island), Trinidad, Tunisia, Uganda, U.A.R., United States of America, Vatican City, Virgin Islands, West Irian, Windward Islands, and Yugoslavia, Zambia, Liberia, Seychelles, Rwanda, Turkey, Bahamas, Aden, S. Korea, New Zealand, Cambodia, Laos and Brunei, Venezuela, Pemba, Peru, Uruguay, Colombia, Fujairah, Somalia, Sharajah, Kinshasa (Congo Republic) and Ocean Liners which are equipped with the necessary equipment.

Radio-photo service is available with 24 other countries as shown below :

Switched Radio-photo Services:—Australia, Belgium, Canada, Czechoslovakia, Cyprus, Denmark, U.A.R., Finland, France, Germany, Nigeria, Norway, Portugal, Roumania, Sweden, South Africa, Switzerland, Yugoslavia and U.S.A.

Multi-Address Press Broadcast (Telegraph) Services:— The Overseas Communications Service provides news transmissions by radio-telegraph on behalf of the Ministry of External Affairs simultaneously to about 43 Indian Consular posts around the world.

Reception of Foreign Press Broadcast (Telegraph) Services:—The Overseas Communications Service provides Indian News Agencies with facilities for reception of Telegraph Press Broadcasts by Foreign News Agencies.

Programme Transmissions Service:—Facilities are offered for "programme transmissions" i.e. spoken despatches by representatives and correspondents of foreign Broadcast Organisations. for broadcast by their respective principals.

Leased Telegraph Channels Service:—Leased teleprinter channels for private customers on rental basis were introduced as a new facility by O.C.S. in the year 1957. This Service has since then expanded rapidly and 39 such channels are in use, as on 26th November 1969, by business concerns, etc. This facility provides means of communication by teleprinters directly between the parties.

International Telex Services:—The international telex service is the most modern form of facility available to the public and, as with other countries in the world, there is a very large and phenomenally growing demand for the provision of such service.

International telex service was introduced for the first time in India in June, 1960 linking the Bombay/ Ahmedabad group of subscribers with London, and via London with a number of countries in the world.

Direct Telex Services:—United Kingdom (3 independent circuits—one each from Bombay, Calcutta and New Delhi), Japan, Federal Republic of Germany, Philippines, Australia, Ceylon and Hong Kong. Through these direct connections with International network, telex service is available with 92 other countries as shown below.

Switched Telex Services:—Aden, Algeria, Argentina, Austria, Bahrain, Belgium, Bermuda, Brazil, Bulgaria, Canada, Chile, Czechoslovakia, Denmark, Doha, Dubai, Ethiopia, Farce Islands, Fiji, Finland, France, German Democratic Republic, Ghana, Greece, Hungary, Iceland, Irish Republic, Israel, Italy, Jamaica, Kenya-Uganda, Tanzania, Lebanon, Luxembourg, Malaysia, Malta, Mexico, Muscat, Netherlands, New Zealand, Nigeria, Norway Peru, Poland, Republic of Sudan, Roumania, Singapore Spain, Sweden, Switzerland, Turkey, Uruguay, U.S.A.

USSR, Thailand, Yugoslavia, Kuwait, Panama, South Korea, Zambia, Barbados, Trinidad, Antigua, Dominica, Grenada, Monteserrat, St. Kilts, St. Lucia, St. Vincent, Tortola, Bolivia, St. Croix, Porto Rico, St. Thomas, Guyana, Papua, New Guinea, Taiwan, Venezuela, Colombia, Saudi Arabia, Indonesia, U.A.R., Viet Nam (South), British Honduras, Iran, Congo-Kinshasa, Hawai, Guam, Burundi, Mauritius, Cayman Islands and Seychelles.

All International Telex services are integrated with the internal telex system, which the Indian P. & T. has made available to the Indian public in 25 cities viz. Calcutta, Bombay, New Delhi, Madras, Ahmedabad, Secunderabad-Hyderabad, Bangalore, Kanpur, Coimbatore, Nagpur, Patna, Madurai, Poona, Gauhati, Tiruchirapalli, Jaipur, Vijayawada, Cochin, Amritsar, Baroda, Jamshedpur, Lucknow, Ranchi, Srinagar and Surat.

## PORTS

THERE are eight major ports in India, 21 intermediate ports and 144 working minor ports. Mangalore and Tuticorin are being developed as major ports.

Technically a major port is one which is capable of taking in ocean-going steamers with a registered tonnage of 4,000 or more and berth them along wharves.

The eight major ports are Bombay, Calcutta, Cochin, Kandla, Madras, Mormugao, Paradeep and Visakhapatnam.

State-wise distribution of intermediate ports and the number of minor ports respectively are:

MYSORE: Karwar & Mangalore & 19 minor ports. Tamil Nadu: Cuddalore, Nagapattinam & Tuticorin & seven minor ports. Maharashtra: Ratnagiri and Redi, and 47 minor ports. Gujarat: Okha, Porbander, Bhavnagar, Navalakhi, Bedi, Veraval, Broach, Mandvi, Sikka and Surat, and 40 minor ports. Kerala: Alleppey and Kozhikode, and nine minor ports. Orissa: There is one minor port. Andhra Pradesh: Masulipatam and Kakinada, and five minor ports. Pondicherry: There is one minor port of Pondicherry only. Andaman & Nicobar Islands: There are 15 minor ports.

All the major ports are administered by Port Trusts, which are statutory bodies.

The intermediate and minor ports are administered by State Governments.

The National Harbour Board: The Board advises the Central Government on matters of general policy relating to port management and development including their effects on industry, commerce, shipping, railways etc. so as to ensure integrated consideration of all important port matters.

#### LIGHTHOUSES

Lighthouses are divided into general and local according to the utility of a particular lighthouse to navigation. The superintendence and management of general lighthouses are vested in the Union Government while local lighthouses are managed by the local lighthouses authorities such as State Governments, Port Trusts, etc.

The Department of Lighthouses and Lightships is a self-supporting Dept., its revenue being derived from the light dues levied on shipping under the provision of the Indian Lighthouse Act, 1927.

A statutory body — the Central Advisory Committee for Lighthouses, appointed under the Indian Lighthouses Act, advises the Union Government on matters connected with the erection, additions, alterations, improvements, etc. of lighthouses.

There are 272 lighthouses, 8 lightvessels, 156 lightbuoys, 236 unlighted buoys, 233 beacons, 10 fog signals, 7 M. F. radio beacons, 2 harbour radars, 2 Decca navigator chains, 299 land marks, 716 other marks, making a total of 1,941 aids to navigation strewn over the coastline of approximately 4,340 miles including Andaman, Nicobar, Laccadive and Minicoy Islands.

Programme for the year 1969-70.—An expenditure of Rs. 68.00 lakhs for the provision of navigational aids has been approved for the year 1969-70.

Progress of work during the year 1968-69:—New lights have been established at Sir Hugh Rose and East Island (Andamans) and the lights at Piram Island and Diu Head (Gujarat) have been improved. A new Fog Signal has also been established at Piram Island lighthouse.

Construction of lighthouses, towers etc. at Mangalore, Car Nicobar and False Devi Point etc. was in progress.

### MAIOR PORTS (1968-69)

	Ports		Receipts	Expenditure	No. of passengers embarked	No. of passengers disembarked	Imports in tonnes	Exports in tonnes
Bombay			19.66.51.289 • 45 15.16.53.168 • 6	15,16,53,168-60	3,69,030	3,76,041	120,95,921	43,08,957
Calcutta@			24,34,97,532	25,35,07,820	12,410	75	48,85,192	41,07,035
Cochin			3,88,57,863	3,93,81,087	604	1.878	37,82,500	14,07,036
Kandla			2,10,98,000	1,98,85,000	69,223	70.389	17,09,246	3,36,454
Madras			8,48,21,661.00	8,04,75,231.00	32,841	44,109	30,21,836	23,56,170
Mormugao			2,21,54,000	1,47,45,000	9,717	10,758	3,69,468	84,09,416
Visakhapa			5,75,19,285	4,44,27,128			24,13,966	40,92,785

@ Figures are for 1967-68.

**Bombay:** The Port of Bombay owns landed estates extending over 1,880 acres from Pilot Bunder to Wadala and the docks cover an area of 700 acres. Sassoon Dock has a water area of  $3\frac{1}{2}$  acres and limited facilities for five ships of 1,000 tons.

Besides the docks there are a number of "Bunders" or open wharves along the harbour front with a total

quayage of about 12 kilometres. These bunders handle approximately 9.08 million tonnes.

Repair facilities for shipping are provided at two dry-

docks - Hughes and Merewether.

The Port maintains its own railway system which serves the docks, ten local stations and a large number of sidings on the Port Trust estates. It also connects the main line railways. PORTS 41

The working of the Bombay Port Trust during 1968-69 has revealed a net surplus of Rs. 75·30 lakhs against Rs. 4·83 lakhs envisaged in the revised budget estimates. It had earned Rs. 2,292·88 lakhs during this period against Rs. 2,548·83 last year. The total expenditure during 1968-69 was Rs. 1,876·07 lakhs as against Rs. 1,974·48 lakhs last year. The Bombay port handled 164 lakh tonnes of cargo during 1968-69.

Chairman: L. M. Nadkarni, I.c.s.; General Manager: Govind H. Seth; Secretary: S. D. Chittar.

Calcutta: There are two docks, Kidderpore Docks and King George's Docks. The third and subsidiary deep water dock at Haldia meant for handling bulk carriers and bigger vessels is under construction. There are five dry docks two in King George's Docks and three in Kidderpore Docks.

There are nine jetties at the Strand Bank with a total length of 4,735 feet of which only five namely Nos. 2, 3, 7, 8 and 9 are available for ocean-going steamers.

There are petroleum wharves at Buj Buj about 14 miles from Calcutta.

Anchorages are available at Saugor Roads, Haldia, Kalpi, Diamond Harbour, Royapur, Ulubaria, Buj Buj and Garden Reach of which Royapur, Ulubaria, Buj Buj and Garden Reach are available only for deep-laden vessels outward bound or in emergency. The other anchorages are used by ships on passage to and from the Port.

There are two tea warehouses, a grain and seeds depot at Kantapukur, two sheds at Jhinjerapul, A and B sheds at Kidderpore, the Fairlie, Clive, Canning and Strand Warehouses situated close to the Calcutta jetties.

Kidderpore Dock No. 2 has six coal berths.

The port can handle over 14 million tonnes of traffic a year without congestion or delay.

The chief exports from Calcutta are coal, tea, sugar, gunnies, bone and bone-meal, bunker oil, iron and steel manufactures, lac, scrap, ores and mica. The principal imports are salt, food-grains and flour, sulphur, tinplate, machinery, petroleum, iron and steel, metals other than iron and steel, lubricating oil, cement, soda, timber, fertilisers, bricks, chemicals, oils, railway material.

Communication between the various points in the Docks and jetties is maintained by the Commissioners' Railway. About 75 ships can be given working accommodation in jetties, docks and river moorings in the Port.

The Port which extends from Budge Budge to Konnagar is administered by a Port Commission composed of representatives of various Chambers of Commerce, trade, shipping, the City Corporation and the Muncipality, the Govt. of West Bengal, Customs, Labour, Zonal Rlys., and the Defence Ministry.

Chairman: N. C. Sen Gupta; Dy. Chairman: S. K. Ghosh; Secretary: T. R. Raghupathi.

Cochin: The Port of Cochin is open for deep water traffic in the worst monsoons and provides a splendid anchorage at all times of the year. Any ship drawing upto 30 ft. draft can enter the port even in the roughest weather.

The Cochin Harbour Railway is connected with the Broad Gauge and Metre Gauge systems of the Southern Railway. Inside the Harbour there are 12 stream berths, 2 coal berths, 8 wharf berths, 1 Boat Train Pier Jetty with facilities for discharging and loading bunker oil and two tanker berths. One of the twelve stream berths is a swinging berth capable of accommodating vessels upto 565

ft. overall in length and 28 ft. draft. The tanker berths in the Ernakulam Channel provide facilities to discharge oil direct to the shore installations. The length of each of the wharves is 2,000 ft. and vessels of the above length can be accommodated at some of the berths.

The principal imports are foodgrains, mineral oils (crude), cashewnuts, hardware, chemicals and manure. The principal exports are coir and coir products, tea, rubber, cashew kernels, seafoods, coconuts, spices, ores and mineral oil products.

Chairman: K. P. K. Menon, I.A.S.

Kandla: The major port of Kandla has now the following main facilities:—

A Cargo Jetty with (a) 823 m. of quayage and designed depth of 9.8 m. of water alongside at L.W.O.S.T. to accommodate four large size ships or five liberty type oceangoing vessels; (b) Three single storeyed transit sheds, each 137 m. long and 43 m. wide, with a total storage capacity of about 15,000 tons of cargo; (c) Broad Wharves served with three dual gauge (BG & MG) railway lines and roads; (d) 21 electric quay cranes, the most modern type of 3 tons, 6 tons and 10 tons capacities with 25 m. each; (e) Spacious open stacking grounds served with railway and road sidings; (f) Four double storeyed Warehouses, each 152 m. long and 37 m. wide, with storage capacity of 60,000 tons, with overbridge connections to the roofs of the transit sheds, and provided with modern cargo lifts, chutes and loading platforms; (g) 'Grinnel' automatic sprinkler and fire alarm system has been provided in one wharehouse as a measure for protection against fire, for the storage of cotton cargo in the warehouse; (h) The construction of an additional 342 m. of quay, designed for a depth of 9.45 m. of water at L.W.O.S.T. has been completed except for the work of dredging alongside.

The port is equipped with the latest version of a harbour radar having a range of 32 k.m. with V. H. F. radio telephones and a coastal wireless station with about 805 k.m. range.

The port is connected to its hinterland by broad gauge rail connection via Jhund-Ahmedabad and metre gauge rail connection via Dessa-Palanpur. Also a national highway connects Kandla to Ahmedabad.

A Free Trade Zone has been established at Kandla.

The chief imports are mineral oil, foodgrains, fertilizers, rock phosphates, sulphur, and machinery whereas the principal items of export are salt, cotton, bones, naphtha, soapstone and iron and steel materials.

261 ships and tankers had called during 1968-69. Chairman: Commodore S. K. Chatterjee.

Secretary: Dr. R. P. Bhargava.

Madras: There is accommodation for 21 vessels inside the harbour, 3 at Moorings and 18 at Quays besides the dangerous Petrol mooring outside the North Groyne. The depth at moorings and quay berths ranges from 7.9 metres to 11.00 metres.

The chief imports are coal, foodgrains, mineral oils, metals, timber, textiles, machinery, hardware, paper including old newspapers, dyeing and tanning substances, chemical manures, asphalt, chemicals, cotton, building materials, iron and steel, sulphur etc.

Ores, piecegoods, hides and skins (raw and tanned), onions, raw tobacco, twist and yarn, mica, vegetables and provisions, textiles, turmeric, groundnut oil, oil cakes, scrap etc. form the principal exports.

The affairs of the Port are administered by a Board of Trustees.

Chairman: V. Karthikeyan, I.A.S. Secretary: N. S. Krishna Pillai.

Mormugao: See Late Particulars.

Vishakapatnam: Ships drawing upto 33 ft. and having a length up to 640 ft. can enter the harbour.

The harbour now provides the following facilities:

The inner harbour consists of a turning basin, six quay berths, three jetty berths etc. The first four quay berths were equipped with portal electric cranes, transit sheds, and railway lines, both behind and on the quay-side. The quay berths Nos.1 and2 are specially equipped and reserved for the expeditious handling of manganese and iron ore, ferro-manganese and pig iron. On an average, approximately 3,000 tons are loaded in a day. Quay berth No. 3 is used exclusively by ships discharging foodgrains and No. 4 is usually allotted to vessels discharging fertilizers and for loading and unloading heavy lifts. Quay berths Nos. 5 and 6 were commissioned with effect from 5-3-68

and 6-11-68. These two berths are allotted for general cargo vessels.

A Dry Dock of 450 ft. length and 60 ft. width with a depth of 18½ ft. below low-water, which can take in ships of 360 ft. in length and 16 ft. draft, has been in use for the docking of vessels.

The port has floating cranes capable of dealing with heavy lifts upto 60 tons capacity.

The Union Cabinet has decided to complete the construction of the Outer Harbour by 1974. The estimated cost of this harbour is Rs. 36.97 crores. This harbour will be designed to receive ore carriers of 100,000 to 150,000 dwt.

The Port Trust is administered by a Chairman appointed by the Government of India.

Chairman: H. Sambamurti. Secretary: T. S. Narasimhan.

#### EAST COAST PORTS

Ports			Receipts for 1968-69 Rs.	Expenditure for 1968-69 Rs.	No. of pass- engers em- barked and disembarked, 1968-69	Imports in tons, 1968-69	Exports in tons, 1968-69	Weight of cargo in tons handled in 1968-69
Bheemunipatnan	n	5	37.50	6,312 · 14	A 17 (0 44) (0 4)			
Cuddalore			22,62,809 · 24	22,91,347.74	2	88,997	1,07,458	1,96,455
Kakinada	1100	1000	15,40,164.15	14,72,409.09		82,252	4,24,964	5,07,216
Machilipatnam			1,36,358.76	96,462.97		-	AND THE CONTRACTOR	
Nagapattinam			4,31,659.93	6.01,251.71	16,346	1,39,753.3	15,543.9	1,55,297.2
Tuticorin			40,07,296.57	39,47,237.57	3	4,55,5221	4,63,9031	9,19,426

## MINOR PORTS OF MAHARASHTRA STATE

(Under Ports Organisation)

	Ports				No. of passengers embarked & disembarked, 1968-69	Imports in tons, 1968-69	Exports in tons, 1968-69	Weights of cargo in M. tons handled in 1968-69
Vengurla group	1.00			100	90,523	16,401	2,22,465	2,38,866
Vijaydurg group			- A - CO		1,48,279	14,071	6,776	20,847
Ratnagiri group					1,82,562	67,156	8,296	75,452
Rajpuri group					46,612	1,881	26,233	28,114
Bandra group					14,07,484	1,54,143	3,47,223	5,01,366
Total		Depart .			18,75,460	2,53,652	6,10,993	8,64,645

Chief Ports Officer, Maharashtra State, Head Quarters, Bombay-1: Capt. V. V. Javadekar.

Total receipt and expenditure of minor ports of Maharashtra for 1968-69 were Rs. 6,61,900 and Rs. 24,85,730 respectively.

#### **GUJARAT PORTS**

There are 48 ports in Gujarat State. Out of these Kandla Port is a major port. Two other ports Diu and Daman are still centrally administered. The remaining 45 ports contain 11 intermediate ports and 34 minor ports. These Gujarat ports have earned a foreign exchange of nearly Rs. 45 crores during the year 1968-69 as compared to the previous year's earning of Rs. 33 crores.

The cargo handled during the year ending 31st March 1969 was 36,98,424 tonnes in comparison to the previous year's traffic of 36,31,387 tonnes. This shows an increase

of 67,037 tonnes in traffic during the year 1968-69. The imports traffic was 13,82,215 tonnes i.e. 37.37 per cent of total traffic and exports traffic amounted to 23,16,209 tonnes i.e. 62.63 per cent of total traffic.

The overall position of traffic in tonnes at Gujarat State Ports classified into various groups during 1968-69 remained as under:—Mandvi 1,49,719; Bedi 11,37,608; Okha 8,17,008; Porbandar 3,40,256; Veraval 2,45,323; Mahuva 1,72,208; Bhavnagar 7,62,688; Broach 73,614; Total: 36,98,424.

#### WEST COAST PORTS

To sold	Ports			Receipts (1968-69) Rs.	Expenditure (1968-69) Rs.	No. of passengers embarked and disembarked, 1968-69	Imports in metric tons,	Exports in metric tons,	Total tonnage of cargo handled in metric tons, 1968-69
Alleppey				1,90,856	2,26,971		20,657	22,180	42,837
Calicut				6,73,982	5,46,050	3,291	1,02,608	1,62,243	2,64,851
Trivandrur				7,393	39,492		3,025	- 100	3,025
Quilon	4.00	Division II		1,00,473	18,958		64,694	5,436	70,130
Koilthotta	m	Section 1		24,495	12,125		STATE OF THE STATE	21,100	21,100
Mangalore		90.	737885	14,15,099	11,39,071	14,799	1,25,125	3,61,051	4,86,176
Tellicherry				15,320	42,158		8,032	1,954	9,986

# PUBLIC HEALTH

MATTERS connected with health fall largely in the State field.

The Centre is, however, directly responsible even for State subjects in the Union Territories of Delhi, Andaman and Nicobar Islands and Minicoy and Amindivi Islands.

The Central Health Service covers all medical and public health posts under the Central Government and the Union Territories other than those under the Ministries of Railways and Defence, and is governed by the Central Health Service (Amendment) Rules, 1966 which came into force from 9th September, 1966.

# CENSUS (Dec. 31, 1966).

(Latest available)

Hospitals and Dispensaries  $14,600^*$ ; Beds  $2,400,100^*$ ; Primary Health Centres 4,919 (a); Medical Colleges 94(c); Annual admissions 10,580; Dental Colleges 14(b); Annual admissions 544(b); Registered Doctors 1,05,310; Registered Dentists 4,192(d); Nurses† 57,621; Auxiliary Nurse Midwives 15,988; Midwives 62,537; Health Visitors 5,382; Pharmacists 56,970§; Vaids 1,600,000@; Malaria Units  $395 \cdot 25(e)$ ; Sanitary Inspectors 18,000; Filaria Control Units 72(e); T.B. Clinics 459(a); T.B. Training Centres 15(a); B.C.G. Teams 216(f); T.B. Beds 36,000(a); T.B. tested by the teams  $241 \cdot 69$  million (g); T.B. Hospitals and Sanatoria 150(a); B.C.G. Vaccinated  $102 \cdot 89$  million (g); Leprosy Control Centres 182; V. D. Headquarters Clinics 7(d); V.D. District Clinics 135(d).

# NATIONAL INSTITUTE OF COMMUNICABLE DISEASES

Objectives and functions: To undertake research into all basic facts underlying the prevalence and spread of communicable diseases and their prevention and study of aetiological agents, vectors, mechanism of infection, including endemic and epidemic phenomena, and any zoonotic reservoirs. Clinical investigations in communicable diseases, including treatment and study of early diagnostic technique, relapse problems and effects of new drugs.

Undertakes training of professional personnel in (1) Epidemiology and control of communicable diseases, (2) Ecology and Control of vector-borne diseases and (3) Epidemiology and control of specific communicable diseases under national programmes, particularly Malaria and Filariasis. The participants at those courses included Medical Officers sponsored by the W.H.O. & SEARO from countries mainly in the South East Asia region.

The institute has four branches at Coonoor, Calicut, Rajahmundry and Varanasi (the latter three for research and training on Filariasis), a project for control of B. Malayi Filariasis in Thuravoor in Kerala State and a field station for plague at Kolar (Mysore State).

The Institute has been recognised by several universities for the purpose of post-graduate research degrees of Ph.D. & D.Sc. (PH). The Institute assists the National Smallpox Eradication Programmes in the country.

# Venereal Diseases Control Programme

The main principles followed in the V.D. programme were:—(i) Treatment of detected cases; (ii) Epidemiological measures to detect cases; (iii) Educational measures.

During the Second and Third Five Year Plans 142 clinics were established in the different States. It is proposed to establish 10 V.D. Clinics during 1969-70.

A programme for periodical Inter-Laboratory Evaluation and of Serological tests for Syphilis, is being carried out with a view to keeping up a high and uniform standard. A central V.D. Advisory Committee has been constituted.

The country is self-sufficient for the diagnostic V.D.R.L. Antigen which is produced in the country.

Yaws: Yaws is prevalent in some areas of Andhra Pradesh, Maharashtra, Madhya Pradesh and Orissa. While the work in Andhra Pradesh has been completed, it is expected that these teams would cover the entire area in Madhya Pradesh and Orissa shortly.

Cancer: The number of persons who die of cancer annually is believed to be in the neighbourhood of 2 lakhs.

There are 50 general hospitals in the country where facilities for cancer treatment are available in the form of surgery, radium etc. They are two in Andhra Pradesh, 4 in Assam, 1 in Bihar, 2 in Delhi, 3 in Gujarat, 3 in Kerala, 8 in Tamil Nadu, 3 in Maharashtra, 4 in Mysore, 2 in Orissa, 5 in Punjab, 4 in Rajasthan, 4 in U.P. and 4 in Calcutta.

Research is conducted at the Indian Cancer Research Centre, Bombay, Tata Memorial Hospital, Bombay, Chittaranjan Cancer Hospital, Calcutta, Chittaranjan National Cancer Research Centre, Calcutta, and Ruplal Nandi Cancer Research Centre, Chandarnagore.

#### Cobalt '60' Unit

The Govt. of Canada have donated through the Colombo Plan Capital Aid Programme 19 Cobalt '60' Therapy

<sup>\*</sup> As on March 31, 1966; † Combined number for Junior and Senior grade nurses; (§) Provisional; @ Registered or enlisted for registration; (a) As on Sept. 30, 1967; (b) Dec. 31, 1967; (c) March 31, 1968; (d) Oct. 31, 1967; (e) Arg. 31, 1967; (f) June 30, 1967; (g) Nov. 30, 1967.

Units. The following are the names of the recipient institutions: Tata Memorial Hospital, Bombay (two units); Chittaranjan Cancer Hospital, Calcutta; Christian Medical College and Hospital, Vellore; Christian Medical College and Hospital, Ludhiana; Cancer Institute, Madras; Medical College, Trivandrum; Medical College, Patna; Radium Institute and Cancer Hospital, Hyderabad; S.C.B. Medical College and Hospital, Cuttack; J.K. Institute of Radiology and Cancer Research, Kanpur; Medical College Hospital, Calcutta; Swami Man Singh Hospital, Jaipur; Safdarjang Hospital and All India Institute of Medical Science, New Delhi; P.B.S. Medical Hospital, Bikaner; Victoria Hospital Medical College, Dibrugarh; Shri M. P. Shah Cancer Hospital, Ahmedabad; Miraj Medical Centre, Miraj; Medical College, Pondicherry.

#### Medical Radiology

The following medical institutions impart training in medical radiology.

Institute of Medical Sciences, Osmania Medical College, Hyderabad; Darbhanga Medical College, Laherissarai; Medical College, Baroda; B.J. Medical College, Ahmedbad; Medical College, Trivandrum; G.R. Medical College, Gwalior; Barnard Institute of Radiology, Madras; Christian Medical College, Vellore; Madras Medical College, Madras; Madurai Medical College, Madras; Stanley Medical College, Madras; Grant Medical College, Bombay; Topiwala National Medical College, Bombay; Armed Forces Medical College, Poona; S.C.B. Medical College, Cuttack; Institute of Post-graduate Medical Education and Research, Chandigarh; S.M.S. Medical College, Jaipur; King George Medical College, Lucknow; Sarojini Naidu Medical College, Agra; Ganesh Shankar Vidyarthi Memorial Medical College, Kanpur; Maulana Azad Medical College, New Delhi; Lady Hardinge Medical College, New Delhi; Safdarjang Hospital, New Delhi; Safdarjang Hospital, New Delhi;

#### PUBLIC HEALTH AGENCIES

A Central Council of Health exists with the Union Minister for Health, Family Planning and Urban Development as chairman and State Health Ministers as members.

The body in charge of research is the Indian Council of Medical Research.

List of Medical Research Institutes/Laboratories in India: Indian Council of Medical Research, Medical Enclave, New Delhi; Indian Cancer Research Centre, Bombay; Central Research Institute, Kasauli (Himachal Pradesh); All India Institute of Hygiene and Public Health, Calcutta; School of Tropical Medicine, Calcutta; Malaria Institute of India (Central Institute for Communicable Diseases), Delhi; Central Drugs Laboratory, Government of India, 3, Kyd Street, Calcutta; Haffkine Institute, Bombay; Nutrition Research Laboratories, Tarnaka, Hyderabad-7 (Dn.); Pasteur Institute of Southern India, Coonoor; K. E. VII Memorial Pasteur Institute, Shillong; Government Vaccine Institute, Namkum (Ranchi); Regional Research Laboratory, Jammu, Tawi; B. C. G. Laboratory, Guindy, Madras-15; Vaccine Institute, Public Health Institute, Mysore, Bangalore; Leprosy Research Centre, Madras; King Institute, Guindy, Madras; Virus Research Centre (B. J. Medical College, Old Building), Poona; Vallabhbhai Patel Chest Institute, University of Delhi; Pasteur Institute, School of Tropical Medicine, Calcutta-12; Cancer Institute, Madras; All India Institute of Mental Health, Bangalore; Central Drug Research Institute, Lucknow; Chittaranjan Cancer Research

Centre, Calcutta; Radium Research and Cancer Hospital, Hyderabad (Andhra Pradesh); Institute of Post Graduate Medical Education and Research, Calcutta; Central Leprosy Teaching and Research Institute, Tirumani; National Chemical Laboratory, Poona; All India Institute of Medical Sciences, New Delhi; National Institute of Experimental Medicine and Biochemistry, Calcutta-13; Central Food Technological Research Institute, Mysore-2; Institute of Child Health, Calcutta; National Medical Institute, Calcutta; Institute of Ophthalmology, Aligarh; Pasteur Institute, Patna; Bose Institute, Calcutta; Institute of Venereology, Madras; Institute of Obstetrics and Gynaecology, Madras; Barnard Institute, Madras.

## CONTROL OF DISEASES

Steps are being taken to control a number of diseases that are rampant.

#### MALARIA

Under the National Malaria Eradication Programme with 393.25 units functioning all over the country a population of 502 million is protected. The actual position of the units during 1968-69 was as follows:

Phase	Units	Popula- tion in million	Percen- tage
Attack	 112 · 985*	141	28
Consolidation	 70.385	91	18
Maintenance	 209.88	270	5

\* Including total of 71.38 unit areas (i.e. 91 million population) reverted to Attack phase from Consolidation (51.78) and Maintenance (19.60).

The estimated expenditure on National Malaria Eradication Programme during 1968-69 is estimated to be Rs. 16.66 crores.

The WHO and the U.S.A.I.D. are assisting the programme in India.

# FILARIA

An outlay of Rs. 5.50 crores has been suggested for the National Filaria Control Programme during the Fourth Five Year Plan.

Three Filariasis Training Centres, one each at Calicut, Rajahmundry and Varanasi, have been established for training personnel, conducting research, carrying out surveys in limited areas and evaluation of the activities of the control units of the States on a regional basis.

Under the programme, 67 Control Units are functioning in 15 States and Union Territories giving protection to about 7 million persons. Besides, 5 Headquarters Units, four Research-cum-Training Centres, 23 Filaria Clinics and 39 Co-ordination Committees for vector control are functioning in various towns and cities.

## LEPROSY

It is estimated that there are about 2.5 million leprosy patients in India, the incidence in some places being as high as 40 per thousand. About 20 per cent of the estimated cases are of the infective type.

In India the problem of leprosy is massive in two States and is high in six States. The estimation of cases in these States has been done on the basis of available epidemiological data. In between Andhra Pradesh and Tamil Nadu it has been estimated that there are nearly half the total number of cases of leprosy in India.

The names of the States with population in millions and estimated number of cases in lakhs respectively are as follows:—

Tamil Nadu  $33 \cdot 6 - 6 \cdot 4$ ; Andhra Pradesh  $36 \cdot 0 - 5 \cdot 2$ ; Bihar  $46 \cdot 5 - 2 \cdot 8$ ; Maharashtra  $39 \cdot 6 - 2 \cdot 2$ ; Mysore  $17 \cdot 2$  (Population of endemic zones only)— $1 \cdot 4$ ; Orissa  $17 \cdot 5 - 1 \cdot 9$ ; U. P.  $29 \cdot 2$  (Population of endemic zones only)— $1 \cdot 4$ ; West Bengal  $35 \cdot 0 - 2 \cdot 4$ ; Remaining States N.A.— $1 \cdot 3$ ; Total estimated no. of cases in lakhs  $25 \cdot 0$ .

As of June 1969, there were 182 leprosy control units, 1,130 S.E.T. Centres (Survey, Education and Treatment Centres) attached to Hospitals, Primary Health Centres, Dispensaries, etc. functioning in the country. Besides, 42 voluntary organisations (37 National, 5 International) participated in this programme.

Upto June 1969 the achievements under the National Leprosy Control Programme are as follows:—

Population covered 77.6 million; persons examined 41.5 million; cases detected 372,680; cases recorded 797,113; cases registered for treatment 728,596; healthy contacts registered for observation 21,01,172.

The Central Leprosy Teaching and Research Institute, Chingleput undertakes research in the various problems concerning leprosy and promotes field studies for the application of the results of the research to control the spread of leprosy. It also functions as a centre for offering technical advice and guidance for the promotion of anti-leprosy work on sound lines. This institute makes available its services for the investigation of special problems in all parts of the country. Training Courses for medical officers, para-medical workers, physiotherapy technicians, laboratory technicians etc. are conducted in this institution.

13 Leprosy Training Centres have been established one each in Kerala, Madhya Pradesh, Mysore, Bihar, Orissa, Uttar Pradesh; two each in Andhra Pradesh, Tamil Nadu, Maharashtra and West Bengal, for the training of Para-Medical workers.

The WHO and the UNICEF assist the Government of India and the State Governments in the National Leprosy Control Programme in the shape of personnel, fellowships, transport, equipment, drugs, teaching aids and stipends for trainees.

Private bodies like the Leprosy Mission Hind Kusht Nivaran Sangh (Indian Leprosy Association) and Gandhi Memorial Leprosy Foundation have been taking active part in controlling leprosy.

### TRACHOMA

Trachoma infection is highly endemic in the States of Punjab including Haryana (79·1%), Rajasthan (74·3%), Uttar Pradesh (68·1%), and Gujarat (56·0%). Amongst the group of moderately endemic areas where the prevalence was noted to be less than 50 per cent but more than 20 per cent were the States of Madhya Pradesh (41·3%), Bihar (35·0%), Assam (25·2%), and Mysore (22·6%). In low endemic areas where the prevalence was noted to be under 20 per cent were the States of Jammu & Kashmir (16·8%), Maharashtra (11·3%), Kerala (8·7%), Tamil Nadu (4·6%), Orissa (2·7%), West Bengal (0·5%), Andhra Pradesh (5·3%).

About 4.5 million are estimated to be blind in India in comparison to the total world estimates of about 15 million. About 60 to 80 per cent of the blindness is preventable.

National Trachoma Control Programme: The programme is being implemented in Punjab, Haryana, Rajasthan, Uttar Pradesh and Gujarat and on a limited scale in the States of Bihar, Jammu & Kashmir, Madhya Pradesh and Mysore.

But by the end of the 3rd Plan population coverage of 6.8 million was achieved against a target of 5.54 million.

During the Fourth Plan it is proposed to bring an additional population of about  $26\cdot98$  million under the Control Operations, the proposed additional coverage for the period 1969-70 being  $2\cdot14$  million.

The headquarters of the programme are located at Aligarh with the object of: (1) Planning; (2) Technical supervision and guidance to the States; (3) Training of the national and international workers; and (4) continuing concurrent field research in control methodologies.

The programme is associated with two international agencies — World Health Organisation and UNICEF.

#### TUBERCULOSIS

Up to the end of 1969 a total of about 249·2 million persons were tuberculin tested and 124·01 million persons were BCG vaccinated from the inception of the campaign in 1949. So far 25 million people of which 9·93 lakhs are newborns have been BCG vaccinated without a tuberculin test. During 1968-69, 63·09 lakh persons were BCG vaccinated from Jan. to Sept. 1968 (9 months). The total number of BCG teams in the country now comes to 221. Research of great value in tuberculosis is being carried out at specialised institutions in Bangalore, Madras and Madanapally.

T.B. Demonstration and Training Centres: Fifteen Training and Demonstration Centres are functioning in 14 States and Union Territories. Effort is being made to equip them with mobile X-ray units and culture laboratory equipment.

National Tuberculosis Institute, Bangalore: This institute runs two training courses of 13 weeks' duration each every year for the training of medical officers and other para-medical staff required to man the District Tuberculosis Centres. The Institute has also been recognised for training at the international level and the WHO fellows from various foreign countries participating in the Prague International courses on epidemiology and control of tuberculosis have been visiting the Institute every year for about 4 weeks' training since 1966. The various field research activities under the National TB control programme are also being undertaken at the Institute.

T. B. Clinics: There are 507 T.B. Clinics in the country, out of which 199 are equipped with miniature X-ray and laboratory facilities. The international bodies like WHO & UNICEF are actively assisting the development of these District T.B. Centres.

#### GOITRE

Endemic goitre associated with criticism, deaf-mutism and various other grades of physical and mental deterioration is prevalent in the northern parts of Kashmir, Punjab, Himachal Pradesh, Bihar, Uttar Pradesh, West Bengal, Assam, N.E.F.A., Nagaland and Manipur. According to the latest available data, about 40 to 45 million people inhabit this goitrous belt of the country and about 9 to 10 million of them suffer from goitre.

During the Fourth Five Year Plan nine more spray type of iodisation plants with a total capacity of two lakh tonnes of iodised salt per annum are proposed to be installed to cater to the needs of 45 million people. Resurveys carried out in many areas of the goitre belt, where iodised salt is being used for 4–5 years, show a significant reduction in the incidence of goitre.

#### SMALL-POX

Under the National Small-pox Eradication Programme, out of a total population of 537 million (mid-year estimated population of 1969) 124·74 million primary vaccinations and 594·88 million revaccinations have been performed up to 1st November 1969. As against 31,402 cases and 6,984 deaths in 1968 (up to October) 14,512 cases and 3,091 deaths have been reported in the corresponding period in 1969 indicating a reduction of 53·8 per cent in morbidity and 55·7 per cent in mortality.

To meet the requirements of the vaccine, the Government of the USSR have gifted 850 million doses of vaccine, besides 19·09 million doses obtained from Netherlands, Switzerland, U.K., Madagascar, German Protestant Organisation and the USAID as free gift.

In order to make India self-sufficient UNICEF have further agreed to give additional equipment worth \$380,000 besides 8 Shelf driers, 4 Centrifugal driers and other ancillary equipment already supplied by them. Preliminary action for the installation of the additional equipment at Patwadangar and Belgaum Institute is being taken. So far about 171 million doses of Freeze Dried Smallpox Vaccine have been produced at the four Vaccine producing Institutes located at Patwadangar (U.P.), Belgaum (Mysore), Guindy (Tamil Nadu) and Hyderabad (Andhra Pradesh).

With the installation of the additional equipment the production capacity of the four Institutes will be raised from 60 million doses to 156 million doses annually.

#### **CHOLERA**

During the year 1969 (up to end of December), 14,272 cases and 2,364 deaths due to cholera were reported in the country as against 20,749 cases and 3,353 deaths during the previous year.

The Central Cholera Organisation undertook the task of delineation of endemic foci. For the 58 selected endemic districts, data were collected in respect of smaller administrative units in order to analyse and pinpoint the endemic foci in these districts.

#### MATERNITY

Maternity and Child Welfare are very important components of health service. 15 States and two Union Territories have established posts of Assistant Directors of Health Services to direct Maternity & Child Welfare Services.

Non-official bodies engaged in welfare work are the Indian Council for Child Welfare, New Delhi; The Kasturba Gandhi Memorial Trust; The Central Social Welfare Board; and the Indian Red Cross Society.

In the rural areas maternity and child welfare services are incorporated as a function of the primary health centres. Upto March 31, 1967, 5,083 primary health centres and 17,521 sub-centres—attached to the Primary Health Centres—have been established.

In Urban area M.C.W. services are available at M.C.H. Centres established by voluntary organisations, local bodies and State Governments.

#### DEFECTIVES

It is estimated that the total number of blind is about 4.39 million and the deaf between 10 and 15 lakhs.

There are in all 131 institutions for the blind and 71 for the deaf and 51 for the mentally handicapped, 23 institutions cater for the orthopaedically handicapped children.

The Government of India give scholarships to blind and deaf persons between the age of 16 and 30 in order to help them to undertake higher academic education, or, professional, vocational or technical training in normal institutions of learning. Scholarships are also awarded to orthopaedically handicapped children and adults who fall in the age-group of 12-30.

The Training Centre for the Adult Blind at Dehra Dun imparts training in engineering and non-engineering trades.

The Central Braille Press at Dehra Dun has already published several Braille books in English, Hindi and other regional languages.

The National Library for the Blind in Debra Dun has 590 members on the roll which circulates about 1,200 volumes of braille literature every month.

There are special employment exchanges for the physically handicapped at Bombay, Delhi, Madras, Hyderabad, Bangalore, Calcutta, Ahmedabad, Chandigarh and Kanpur and the total number of placements made by these exchanges since their inception upto 31st Dec. 1965 is 2.189.

There are also Centres at Bombay, Delhi and Narendrapur (W. Bengal) for the Training of Teachers of the Blind on regional basis. During 1966-67 about 30 teachers completed their training.

#### MENTAL DISEASES

The number of mentally ill persons in India who need institutional treatment is estimated at 1.5 million, and of psycho-neurotics about 3 million. The number of hospital beds is a little less than 25,000. Qualified psychiatrists number about 250, and those practising but formally unqualified about 1,000.

There are at present 51 institutions (25 Government and 26 private) for mentally retarded and handicapped.

Major centres are in: Chandigarh (1), Uttar Pradesh (5), Mysore (2), Maharashtra (19), Tamil Nadu (1), Madhya Pradesh (1), Kerala (1), Gujarat (3), Delhi (7), Bihar (2) and Andhra Pradesh (2).

At present there are 41 mental hospitals with accommodation for about 25,000 patients.

The following is a list of mental hospitals in India:

Government Mental Hospital, Waltair; Hospital for Mental Diseases, Hyderabad; Mental Hospital, Tezpur; Hospital for Mental Diseases, Ranchi; Ranchi Manasika Arogya Shala, Ranchi; Mental Hospital, Ahmedabad; Mental Hospital, Baroda; Mental Hospital, Bhavnagar; Mental Hospital, Branchi; Mental Hospital, Jamnagar; Mental Hospital, Srinagar; Mental Hospital, Jamnagar; Mental Hospital, Trichur; Mental Hospital, Calicut; Government Mental Hospital, Madras; Mental Hospital, Indore; Mental Hospital, Gwalior; Government Mental Hospital, Government Mental Hospital, Dharwar; Mental Hospital, Thana; Mental Hospital, Dharwar; Mental Hospital, Thana; Mental Hospital, Ratnagir; Central Mental Hospital, Miraj; Mental Hospital, Nagpur; Private Hospital, Miraj; Mental Hospital, Jodhpur; Orissa Red Cross Mental Health Institute, Cuttack; Mental Hospital, Varanasi; Mental Hospital, Agra; Mental Hospital, Bareilly; Nur Manzil Psychiatric Centre, Lucknow; Mental Observation Ward, Calcutta; Lumbinipark Mental Hospital, 24 Parganas; Bangiaunmad Ashram, Calcutta; Mental Hospital, Calcutta; Mental Hospital, Mankundu, Hooghly; Mental Hospital, Delhi; Mental Hospital, Panaji; Kasturba Sevashram Mental Hospital, Masood Bazar.

The All-India Institute of Mental Health, Bangalore, conducts various Post-Graduate Courses in: (i) M.D. in Psychological Medicine; (ii) Diploma in Psychological Medicine (DPM); (iii) Diploma in Medical & Social Psychology; (iv) Ph.D. in Clinical Psychology; (v) Diploma in Psychiatric Social Work (DPSW). In addition to these, M.S. Course in Neurosurgery has been sanctioned. The M.D. course in Neurology is to commence soon. The Institute is affiliated to the Bangalore University for Post-Graduate courses. Post-certificate course in Psychiatric Nursing (D.P.N.) is also conducted at the Institute. This Diploma is recognised by the Government of India and the Indian Nursing Council.

#### PUBLIC HEALTH MEASURES

There were up to September 30, 1968, 4,840 primary health centres and 21,752 sub-centres had been established in 4,997 C.D. blocks.

Total number of primary health centres functioning on Sept. 30, 1968 (Statewise): Andhra Pradesh 409; Assam 99; Bihar 587; Gujarat 250; Haryana 89; Jammu & Kashmir 69; Kerala 163; Madhya Pradesh 428; Tamil Nadu 293; Maharashtra 377; Mysore 243; Nagaland Nil; Orissa 282; Punjab 120; Rajasthan 161; Uttar Pradesh Nil; West Bengal 12; Union Territories: Delhi 2; Himachal Pradesh 50; Manipur 12; Tripura 15; N.E.F.A. 68; Pondicherry 12; A. & N. Islands 1; L. M. & A. Islands 3; Goa: Nil; Dadra and Nagar Haveli 1; Chandigarh: Nil.

### Water Supply and Sanitation

National Water Supply and Sanitation Programme: Forty-four urban schemes at a total estimated cost of Rs. 633·61 lakhs were approved by the Central Public Health Engineering Organisation during 1968-69. Six hundred rural water supply schemes at a total estimated cost of Rs. 159·4 lakhs were approved by the State Governments.

#### DRUGS

The control over imported drugs is exercised by the Central Government through its offices at the ports of Bombay, Calcutta, Cochin and Madras.

Manufacture by units having fixed assets (investment in plant and machinery exceeding Rs. 7·5 lakhs is regulated by the Directorate-General of Technical Development, Central Government. Manufacture by units with fixed assets less than Rs. 7·5 lakhs is regulated by the respective State Directorates of Industries. Control over 'new drugs', imported or indigenously manufactured is exercised by the Central Drugs Control Organisation.

The Drugs and Cosmetics Act has been amended empowering the Central Government to assist State Governments in exercising control over the quality of drugs and cosmetics manufactured in the country. Ayurvedic and Unani medicines have been brought under the purview of the Drugs and Cosmetics Act. Rules for the control of Homoeopathic medicines under the Drugs and Cosmetics Rules have been published and have been brought into force.

#### NURSING

At the end of the year 1967, there were 59,914 registered nurses, 65,589 registered midwives, 3,307 registered health visitors and 17,592 auxiliary nurse-midwives. The total number of qualified health visitors in India on 31st December, 1967, was about 5,884.

The number of training institutions for nursing personnel and of students under training at the end of 1968 were as follows (The figures within brackets indicate the number of students): Nurses 255 (20,186); Midwives

219 (3,737); Auxiliary Nurse-Midwives 337 (11,088); Health Visitors 19 (1,426).

Of these 218 schools give a 6 to 9 months course to qualified nurses and the remaining one school gives a 12 to 18 months course in midwifery to candidates who are not qualified nurses.

## The Countess of Dufferin's Fund

The Fund which is now a Govt. of India body grants scholarships to Lady Post-graduate and Under-graduate Medical students and B.Sc. (Nursing) and Public Health Nursing students studying in Medical and Nursing Colleges respectively in India.

# MEDICAL EDUCATION

There are 94 medical colleges in the country with an annual admission of about 11,700 as compared to only 30 medical colleges with 2,500 admissions in 1950-51. Only nine more medical colleges are proposed to be opened during the Fourth Plan. The doctor: population ratio which at present is 1:5,112 will improve to 1:4,300 by 1974.

List of medical colleges university-wise in India during

Agra University, Agra: S. N. Medical College, Agra. Allahabad University, Allahabad: M.L.N. Medical College, Allahabad. Andhra University, Waltair: Andhra Medical College, Visakhapatnam; Guntur Medical College, Guntur; Rangaraya Medical College, Kakinada. All India Institute of Medical Sciences, New Delhi. Aligarh Muslim University, Aligarh: J. L. N. Medical College, Aligarh. Bihar University, Muzaffarpur: Darbhanga Medical College, Laheriasarai. Banaras Hindu University, Varanasi: College of Medical Sciences, Varanasi. Baroda University, Baroda: Medical College, Baroda. Bombay University, Bombay: Grant Medical College, Bombay; Seth G. S. Medical College, Bombay; T. N. Medical College, Bombay; Goa Medical College, Panaji; L. T. N. Medical College, Sion, Bombay. Bangalore University, Bangalore: Bangalore Medical College, Bangalore; St. John's Medical College, Bangalore. Calcutta University, Calcutta: Medical College, Calcutta; R. G. Kar Medical College, Calcutta; N.R.S. Medical College, Calcutta; Calcutta Nat. Medical Instt., Calcutta; B.S. Medical College, Bankura. Delhi University, Delhi: Lady Hardinge Medical College, New Delhi; Maulana Azad Medical College, New Delhi. Dibrugarh University, Dibrugarh (Assam): Assam Medical College, Dibrugarh. Gauhati University, Jalikbari (Gau-hati): Gauhati Medical College, Gauhati; Medical College, Silchar (Assam). Gujarat University, Ahmedabad: B. J. Medical College, Ahmedabad; M. P. Shah Medical College, Jamnagar; Municipal Medical College, Ahmedabad. Jiwaji University, Gwalior : G. R. Medical College, Gwalior. University of Indore, Indore: M.G.M. Medical College, Indore. University of Jabalpur, Jabalpur: Medical College, Jabalpur. Karnatak University, Dharvar: Karnatak Medical College, Hubli; Medical College, Belgaum; Medical College, Gulbarga. Nagpur University, Nagpur: Medical College, Nagpur. Kerala University, Trivandrum: Medical College, Trivandrum; Medical College, Calicut; Medical College, Kottayam; T.D. Medical College, Alleppey (Kerala). University of Lucknow, Lucknow: K. G. Medical College, Lucknow; G.S.V.M. Medical College, Madras University, Madras: Medical College, Madras; Stanley Medical College, Madras; Stanley Medical College, Madras; Christian Medical College, Vellore; Kilpauk Medical College, Madras; Medical, College, Pondicherry; Thanjavur Medical College, Thanjavur; Medical College, Combatore. Madurai University, Madurai Madurai Medical College, Madurai University, Madurai : Madurai Medical College, Madurai ; Tirunelveli

Medical College, Tiruneveli. Marathwada University, Aurangabad: Govt. Medical College, Aurangabad. Mysore University, Mysore: Mysore Medical College, Mysore; Medical College, Bellary; Kasturba Medical College, Manipal; Medical College, Davangere. Osmania University, Hyderabad: Osmania Medical College, Hyderabad; Gandhi Medical College, Hyderabad; Kakatiya Medical College, Warangal. Panjab University, Chandigarh: Medical College, Amritsar; Christian Medical College, Ludhiana; Govt. Medical College, Rohtak; Dayanand Medical College, Ludhiana; Medical College, Simla. Punjabi University, Patiala: Govt. Medical College, Patiala. Patna University, Patiala: Govt. Medical College, Patiala. Patna University, Patna: P.W. Medical College, Poona; Armed Forces Medical College, Poona. Rajasthan University, Jaipur: S. M. S. Medical College, Jaipur; S.P. Medical College, Bikaner; R.N.T. Medical College, Udaipur; Medical College, Jodhpur; Medical College, Udaipur; Medical College, Jodhpur; Medical College, Ranchi: University, Raipur: J.L.N. Medical College, Raipur. S.V. University, Tirupati: Kurnool Medical College, Raipur. S.V. University, Tirupati: Kurnool Medical College, Kurnool; S.V. Medical College, Tirupati. Shivaji University, Kolhapur: Miraj Medical College, Miraj; Dr. V. M. Medical College, Sholapur. Saugar University, Saugar: S.S. Medical College, Rewa. Utkal University, Bhubaneswar: S.C.B. Medical College, Cuttack. Vikram University, Ujjain: Gandhi Medical College, Bhopal. Jammu & Kashmir University, Srinagar: Govt. Medical College, Srinagar. Meerut University, Meerut: L.L.R.M. Medical College, Meerut. Sambalpur University, Sambalpur: Burla Medical College, Burla. Berhampur University, Berhampur: Medical College, Berhampur. South Gujarat University, Surat: Medical College, Surat.

### DENTAL EDUCATION

There are now fifteen Dental Institutions all affiliated to Universities, training students for the degree of Bachelor of Dental Surgery (B.D.S.) having facilities for about 580 admissions in all the following Dental Colleges:—

Punjab Govt. Dental College and Hospital, Amritsar; Nair Hospital Dental College, Bombay; Govt. Dental College & Hospital, Bombay; Dr. R. Ahmed Dental College & Hospital, Calcutta; Dental Wing, K. G. Medical College, Lucknow; Dental Wing, Medical College, Madras; Dental College and Hospital, Bangalore; Dental College, Trivandrum; Dental Wing, Osmania Medical College, Hyderabad; Dental College & Hospital, Patna; College of Dentistry, Indore; Govt. Dental College and Hospital, Ahmedabad; College of Dental Surgery, Kasturba Medical College, Manipal (S. Kanara); Govt. Dental College & Hospital, Nagpur; and Dental Wing, Govt. Medical College, Patiala.

The eight specialities for Post-graduate education in Dentistry as prescribed by the Dental Council of India are:—Prosthetic Dentistry, Oral Surgery, Operative Dentistry, Orthodontia, Periodontia, Oral Diagnosis and Dental Radiology, Dental Pathology and Bacteriology, and Pedodontia and Preventive Dentistry.

Thirty-four Post-graduate Departments in the various specialities of dentistry have been established at the following centres:—

Govt. Dental College and Hospital, Bombay:—Prosthetic Dentistry, Periodontia, Orthodontia, Dental Pathology & Bacteriology, Oral Surgery, Operative Dentistry and Dental Radiology.

Nair Hospital Dental College, Bombay: Prosthetic Dentistry, Periodontia, Operative Dentistry, Orthodontia, Dental Pathology & Bacteriology, Dental Radiology and Oral Surgery.

Dental Wing, K. G. Medical College, Lucknow: Prosthodontics, Periodontics, Orthodontics, Oral Surgery & Preventive Dentistry.

Dental College, Trivandrum: Operative Dentistry & Prosthetic Dentistry.

Dental College, Bangalore: Orthodontia, Oral Surgery and Periodontia.

Punjab Govt. Dental College, Amritsar: Dental Prosthetics, Crown & Bridge Work and Pedodontia & Preventive Dentistry.

Dental Wing, Madras Medical College, Madras: Oral Surgery and Periodontology.

Armed Forces Medical College, Poona:—Prosthetic Dentistry.

Government Dental College & Hospital, Ahmedabad: Operative Dentistry, Prosthetic Dentistry, Periodontia, Oral Pathology & Bacteriology and Oral Diagnosis & Radiology.

The Dental Mechanics course extends over a period of two academic years and that for Dental Hygienists lasts for one year.

Facilities for the training of Dental Mechanics are available at: Govt. Dental College & Hospital, Bombay, Dental Wing, K.G. Medical College, Lucknow, Dental College, Trivandrum, Dental Wing, Madras Medical College, Madras, Dental College, Bangalore & various centres of the Armed Forces for Army personnel only.

Facilities for the training of Dental Hygienists are available at: Govt. Dental College & Hospital, Bombay; Dental College, Trivandrum; Dental Wing, Madras Medical College, Madras and Armed Forces Medical College, Poona for Army personnel only.

Dental Faculties:—The following three Universities have separate Dental Faculties:—(i) Bombay University, Bombay, (ii) University of Calcutta, Calcutta and (iii) Gujarat University, Ahmedabad.

Progress in Dental Research: The Indian Council of Medical Research and the Government of India have sanctioned at Lucknow Dental College & Hospital a Research Project under PL 480 Grant in (i) Prophilaxis Procedure on the Control of Periodontal Diseases for Rs. 7,62,377 for three years, and (ii) another Research Project under PL 480 Grant for Rs. 6,54,580 for five years on Sodium Fluoride Intake and Dental Caries. There is already a permanent Research Unit in Periodontology at Lucknow sanctioned by the Indian Council of Medical Research for five years for about Rs. 5,00,000. The Dental College at Ahmedabad has also been sanctioned a Research Project in 'Oral Cancer' by the Indian Council of Medical Research under PL 480 Grant for Rs. 10,74,799 for six years. A PL 480 Grant Research Project on 'Oral Cancer' is already in operation at Madras for Rs. 4,02,290 for five years. During 1967 the Indian Council of Medical Research has approved Research Grants for Rs. 3,05,165 for 20 old and new research schemes. One important work is at Lucknow on "Sodium Fluoride Tooth Pastes and Fluoride Phosphate Solution" to arrest Dental Caries in children.

There are roughly 350 Dental Clinics, mostly at District Hospitals and during the next five years more such clinics are expected to be opened at District and Tehsil Hospitals. A sizeable number of School Dental Clinics are expected to be opened in various parts of the country. Each School Dental Clinic shall be designed to look after 3,000 school-going children between the age of 5-10 years.

#### **PHARMACY**

The Pharmacy Council of India (Central Council), constituted under the Pharmacy Act of 1948 and situated at Temple Lane, Kotla Road, Post Box No. 337, New Delhi-1, prescribes and regulates the minimum educational standards of pharmacy namely, the educational regulation; approves courses and examinations in pharmacy which are in conformity with the education regulations and qualifications in pharmacy granted outside the extent of the Act for the purpose of qualifying for registration as pharmacist; encourages the development of pharmaceutical courses; educates the public about the profession and prospects in pharmacy; has also recommended a code of pharmaceutical ethics for the members of the profession; maintains a books library and films library on various aspects of pharmacy.

# Enforcement of the Pharmacy Act, 1948:

With a view that the practice of pharmacy is restricted to properly qualified and competent persons, the State Governments constitute a Registration Tribunal which prepare the first Register of all persons who have been in the profession up to a particular date. This leads to the constitution of the State Pharmacy Council which maintains the register thus formed and effect subsequent registration.

Then after 3 years, only those persons who have passed an approved examination in conformity with the Education Regulations are considered eligible for fresh registration. The State Governments can restrict the practice of pharmacy by unregistered pharmacists by enforcing section 42 of the Act. Now the Education Regulations have taken effect in almost all the States.

#### Pharmaceutical courses:

The names of 45 institutions which impart the pharmaceutical courses are given below:—

Department of Pharmacy, Andhra University Colleges, Waltair (Andhra Pradesh; B. Pharm); Government Polytechnic for Women, Kakinada (Andhra Pradesh; \*D. Pharm); Kamala Nehru Girls Polytechnic, Mukram Jahi Market, Hyderabad (Andhra Pradesh; \*D. Pharm); Government Polytechnic, Hyderabad (Andhra Pradesh; D. Pharm); Government Polytechnic, Visakhapatnam (Andhra Pradesh; \*D. Pharm); Government Polytechnic, Tirupati (Andhra Pradesh; D. Pharm); Government Polytechnic, College, Dibrugarh (Assam; \*D. Pharm); Pharmacy School, Patna (Bihar; \*D. Pharm); L.M. College of Pharmacy, Navrangpura, Ahmedabad (Gujarat, \*D. Pharm, Inter Pharm, \*B. Pharm); Calicut Medical College, Calicut (Kerala, D. Pharm); Maharaja's College, Ernakulam (Kerala, M.Sc. Pharmaceutical Chemistry); Pharmacy Department, University of Saugar, Sagar (Madhya Pradesh; \*B. Pharm); S. V. Government Polytechnic, Bhopal (Madhya Pradesh; \*D. Pharm); Madras Medical College, Park Town, Madras (Madras; \*D. Pharm, \*B. Pharm); Madurai Medical College, Madurai (Madras, \*D. Pharm); Madurai Medical College, Madurai (Madras, \*D. Pharm); Bombay College of Pharmacy, Kalina, Bombay (Maharashtra, \*D. Pharm); Government Polytechnic, Karad (Maharashtra; \*B. Pharm); Government Polytechnic, Jalgaon (Maharashtra; \*D. Pharm); Government Polytechnic, Jalgaon (Maharashtra; \*D. Pharm); Government Polytechnic, Amravati (Maharashtra; \*D. Pharm); Government Polytechnic, Amravati (Maharashtra, \*D. Pharm); Department of Chemical Technology, Bombay-19 (Maharashtra; B. Pharm); Poona College of Pharmacy, Poona (Maharashtra, \*D. Pharm); Government College of Pharmacy, Bangalore

(Mysore, \*D. Pharm, \*B. Pharm); National Education Society's Institute of Pharmacy, Shimoga (Mysore, \*D. Pharm); The Kasturba Medical College, Manipal (Mysore, \*D. Pharm, \*B. Pharm); V.L. College of Pharmacy, Raichur (Mysore, \*D. Pharm); Sc.B. Medical College, Cuttack (Orissa, \*D. Pharm); School of Pharmacy, Belgaum (Mysore, D. Pharm); Medical College, Burla, Sambalpur (Orissa, \*D. Pharm); Government Medical College, Patiala (Punjab; \*D. Pharm, and Dressers' Course); Medical College, Amritsar (Punjab, \*D. Pharm and Dressers' Course); Rohtak Medical College, Rohtak (Haryana, \*D. Pharm); Birla Institute of Technology, and Science, Pilani (Rajasthan, \*B. Pharm (Hons.), B. Pharm (Tech.)); College of Technology, Banaras Hindu University, Varanasi (U.P., \*B. Pharm); Government Polytechnic for Women, Ambala (Haryana; D. Pharm); S.M.S. Medical College, Jaipur (Rajasthan, M. Pharm Pharmacology); G.S.V.M. Medical College, Kanpur (U.P., \*D. Pharm); Pharmacy Training Centre, Jalpaiguri (West Bengal, \*D. Pharm); Jadavpur University, Calcutta (West Bengal; B. Pharm); Government Polytechnic for Women, Chandigarh (Union Territory; \*D. Pharm); Deptt. of Pharmacy, Punjab University, Chandigarh (Union Territory; \*B. Pharm); Goa College of Pharmacy, Panaji (Goa; \*D. Pharm, B. Pharm); Pusa Polytechnic, Pusa, New Delhi (Union Territory, \*D. Pharm).

Qualifications granted outside the extent of Pharmacy Act: The Central Council have approved the following qualifications for the purpose of qualifying for registration as a pharmacist in respect of the Indian Nationals: Degree in Pharmacy granted by any accredited college of pharmacy of the U.S.A.; Degree in Pharmacy of B.Sc. (Pharm) of a British University; Diploma of Chemist and Druggist and Pharmaceutical Chemist of the Pharmacy Society of Great Britain; Diploma in Pharmacy of the University of Adelaide, South Australia; Doctorate in Science (Pharmaceutical Chemistry) granted by the University of Frankfurt a/m, West Germany; Diploma in Pharmacy granted by the Universities of Switzerland before December, 1973; Certificate of Proficiency granted by Ceylon Medical College Council, Ceylon; "Qualification as Pharmacist" granted by Maximillian University, Wurzburg (West Germany); "Qualifying Examination for Pharmaceutical Chemist" granted by Pharmacy Board of New Zealand; Pharmaceutical Diploma granted by the Government of Goa (Pre-independence); Compounder's Diploma in Pharmacy granted by the Government of Burma; Diploma granted by the Ceylon Authorities to those who have practised Pharmacy for a period of five years; Diploma for Pharmacist granted by East Bengal Government; and Dresser's Diploma Grade I, II and III granted by the Federated Malaya States +.

#### Practical Training:

The student pharmacists have to undergo a practical training in an approved institution — hospital/dispensary for a period of not less than 750 hours covered in not less than three months. The Central Council has approved 255 institutions having a training capacity of 1,233 student pharmacists. State-wise number of institutions and available seats respectively are as under:—

Assam: 7; 27; Andhra: 19; 109; Bihar: 14; 91; Gujarat: 24; 21; Haryana: 7; 28; Tamil Nadu: 25; 287; Maharashtra: 55; 189; Mysore: 39; 117; Punjab: 22; 88; U. P.: 3; 29; West Bengal: 21; 110; Delhi: 9; 82; Chandigarh: 1; 4; Kerala: 2; 25; Orissa: 6; 26.

## Registration of Pharmacists:

There were 75,120 pharmacists registered by the end of December 1967 in India.

<sup>\*</sup> Approved by the Pharmacy Council of India for qualifying for registration as a pharmacist under The Pharmacy Act, 1948.

<sup>†</sup> These courses are recognised for registration in First Register only.

# RESEARCH

RESEARCH in pure science is carried out mainly in the universities, scientific surveys of the Government, and in some research institutes such as the Tata Institute of Fundamental Research. The Council of Scientific & Industrial Research (C.S.I.R.) and the Department of Atomic Energy provide facilities for fundamental or basic research in their laboratories and institutes, and also sponsor such research in universities and research institutions all over the country.

Research in applied science and for industrial development is done mainly under the auspices of the C.S.I.R., the Co-operative Industrial Research Associations, institutes functioning under various Ministries and the laboratories attached to a few industrial concerns.

The Shri Ram Institute for Industrial Research, Delhi, undertakes, on a 'non-profit' basis, researches on projects sponsored by industrial concerns, groups of companies, individuals and Government agencies.

Research in engineering subjects is undertaken in some of the C.S.I.R. laboratories and institutes, the Indian Institute of Science, Bangalore, Central and State Hydraulic Engineering Research Stations, higher technological institutions, like the Indian Institute of Technology, Kharagpur, and in a few engineering colleges, such as the College of Engineering and Technology, Jadavpur.

The Council of Scientific & Industrial Research, also sponsors engineering research in various institutions through its research committees.

Agricultural research is looked after by the Indian Council of Agricultural Research, New Delhi, The Indian Agricultural Research Institute, New Delhi, and the various Central Committees for agricultural commodities like the Indian Central Cotton Committee, Indian Central Jute Committee, etc. and the research institutes functioning under the Ministry of Food and Agriculture. (See article on Agriculture.)

The Indian Veterinary Research Institute, Izatnagar (U.P.) is concerned with veterinary diseases. The National Dairy Research Institute at Karnal in the Punjab works on dairy research.

Research in forestry and forest products is undertaken by the Forest Research Institute and Colleges at Dehra Dun.

Medical research is carried out under the auspices of the Indian Council of Medical Research, institutes functioning under the Ministry of Health, and the Council of Scientific and Industrial Research.

Research in the humanities—literature, language, the arts, etc.—is done at individual institutions scattered throughout the country.

Research in social problems such as social tensions, social welfare and labour welfare is conducted as part of their work at many universities.

About 275 research journals (English) are published in India. These cover a wide range of subjects, grouped as follows: General science, 31; Engineering, including civil, electrical, telecommunication and aeronautical, 31; Chemistry, including biochemistry, chemical technology, plastics, paint, oils and fats, soap, and food, 21; Agriculture, including forestry, 35; and Medical sciences, 64.

#### SCIENTIFIC SOCIETIES

Role of Scientific Societies: (i) Bringing together of scientists specialized in the same area of knowledge;

(ii) Affording them an opportunity for inter-communication of ideas within a discipline or between various disciplines through conferences, special discussions and publication of journals; (iii) Serving as a platform for discussing general problems of science, such as organization, education, problems of manpower; (iv) Acting as a forum for crystallization of ideas regarding the relation of science to society and as a centre for disseminating and popularizing science; (v) Recognizing contributions to science of its members and conferring distinctions on them.

## PHYSICAL SCIENCE SOCIETIES

Indian Mathematical Society: Hansraj College, Delhi-6; Indian Geographical Society: University Centenary Buildings, Madras-5; Institution of Chemists (India): Chemical Department, Medical College, Calcutta-12; The Indian Physical Society: 2 and 3, Raja Subhod Mallik Road, Jadavpur, Calcutta-32; Calcutta Statistical Association: Calcutta University, Asutosh Building, Calcutta-12; National Geographical Society of India: Department of Geography, B.H.U., Varanasi-5; Hyderabad Science Society: 12-2-460, Malkapur, Asifnagar, Hyderabad-6 (A.P.); Deccan Section of the Royal Institute of Chemistry: Indian Institute of Science, Bangalore; Indian Society of Agricultural Statistics: Library Avenue, P.B. No. 310, New Delhi-12; Bharat Ganita Parisad: Department of Mathematics, Lucknow University, Lucknow; Geographical Society of India: C/o Geography Department, Calcutta University, 35, Ballyganj, Circular Road, Calcutta-19; The Electrochemical Society of India: Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore-12; The Indian Society of Theoretical and Applied Mechanics: Indian Institute of Technology, Kharagpur; Indian Meteorological Society: Meteorological Office, Lodi Road, New Delhi-3; Geological Society of India: Race Course Road, Bangalore-1; Indian Interplanetary Society: 9, Hastings Street, Calcutta-1; Institute of Himalayan Geology: Delhi University, Delhi.

#### MEDICAL SCIENCE SOCIETIES

Ahmedabad Medical Society: (Branch of Indian Medical Association), Opp. H. K. Arts College, Ashram Road, Ahmedabad-9; Bombay Sanitary Association: Public Health Department, Municipal Offices Building, Bombay-1; Association of Medical Women in India: New Hospital for Women, New Queen's Road, Bombay-4; Mysore Medical Association: Fort, Bangalore-2; No. of Branches: 26; All India Ophthalmological Society: Bombay Mutual Building, Sir P. Mehta Road, Bombay-1; Gujarat Research Society: Samsodhan Sadan, South Avenue, Khar, Bombay-52; Indian Psychoanalytical Society: 14, Parsibagan Lane, Calcutta-9; Association of Surgeons of India: Madras; Madras Psychology Society: Department of Psychology, Madras-5; All India Dental Association: India House, Cumballa Hill, Bombay-26; Society for the Study of Industrial Medicine: 243, Khetwadi Main Road, Bombay-4; Indian Society of Anaesthetists: K. E. M. Corner, Indore (GPO), M.P.; Cardiological Society of India: 67, Dharamtolla Street, Calcutta-13; Federation of Obstetric & Gynaecological Societies of India: Purandare Griha, Chowpatty Sea Face, Bombay-7; The National Society of India for Malaria & Other Mosquito Borne Diseases: 22, Alipore Road, Delhi-6; Neurological Society of India: (Temporary address) C/o Dr. Anil D. Desai, 534, Sandhurst Bridge, Bombay-7; Indian Cancer Society: Hospital Avenue, Parel, Bombay-12;

The Indian Association of Physio-Therapists: Patel Chambers, 5th Floor, French Bridge, Bombay-7; Indian Public Health Association: 110, Chittaranjan Avenue, Calcutta-12; Indian Association of Leprologists: Govt. Leprosy Subsidiary Centre, Attur (Salem District), Tamil Nadu; Indian Society of Haematology: Secretary's Office, 28, Lady Hardinge Road, New Delhi; The Indian Association of the Chest Diseases: C/o The Patel Chest Institute, University Campus, Delhi-6; Indian Academy of Dentistry: Govt. Dental College Hospital, Bombay-1; The Anatomical Society of India: Department of Anatomy, B. J. Medical College, Poona; Indian Academy of Medical Sciences: I.C.M.R. Building, Ansari Nagar, New Delhi-16; Indian Association of Dermatologists and Venereologists: (Western India Branch), Queen's Road, Bombay-4.

## BIOLOGICAL SCIENCE SOCIETIES

The Royal Agri-Horticultural Society of India: 1, Alipore Road, Alipore, Calcutta-27; Indian Botanical Society: School of Plant Morphology, Meerut College, Meerut; The Indian Veterinary Association: 7, First Street, Vidyodaya East, T. Nagar, Madras-17; The Bengal Natural History Society: Natural History Museum, Darjeeling; Bombay Natural History Society: Horn Bill House, Shahid Bhagat Singh Road, Bombay-1 BR; Indian Society of Soil Science: Indian Agricultural Research Institute, New Delhi-12; Botanical Society of Bengal: 35, Ballygunge Circular Road, Calcutta-19; The Physiological Society of India: 50/2, Dharamtolla Street, Calcutta-13; The Entomological Society of India: Indian Agricultural Research Institute, New Delhi-12; The Palaeobotanical Society: Lucknow; The Birbal Sahni Institute of Palaeobotany: 53, University Road, Lucknow; Maharashtra Association for the Cultivation of Science: Law College Road, Poona-4; Ethnographic and Folk Culture Society\*: Department of Anthropology, University of Lucknow, Lucknow; Indian Phytopathological Society: Indian Agricultural Research Institute, New Delhi-12; Palaeontological Society of India: Lucknow; The Bombay Aquarium Society: Taraporewala Aquarium, Bombay-2; International Society of Plant Morphologists: Department of Botany, University of Delhi, Delhi-6; The Bombay Biological Association: 92, Waterfield Cross Road, Bandra, Bombay-50; Mycological Society: Department of Botany, University College of Science, 35, Ballygunge Circular Road, Calcutta-19; International Society of Tropical Ecology: Department of Botany, B.H.U., Varanasi-5; Society of Biological Chemists, India: Indian Institute of Science, Bangalore-12; Indian Society for Plant Physiology: Division of Botany, Indian Agricultural Research Institute, New Delhi-12; Association of Microbiologists of India: P-27, Prinsep Street, Calcutta-13; Marine Biological Association of India: Mandapam Camp, Tamil Nadu; The Zoological Society: 35, Ballygunge Circular Road, Calcutta-19; Society of Indian Foresters: F. R. I., Dehra Dun, U.P.; Zootomical Society of India: G/14, Beyond Ladies Colony, Banaras Hindy, University, Varenesi, 5: Ribar Academy Banaras Hindu University, Varanasi-5; Bihar Academy of Agricultural Science: P. O. Sabour, Bhagalpur; Indian Society of Genetics & Plant Breeding: Division of Botany, Indian Agricultural Research Institute, New Delhi-12; Oil Technological Research Institute: Anantapur, Andhra Pradesh; Himalayan Zoological Park Society: Darjeeling.

# ENGINEERING AND TECHNOLOGICAL SOCIETIES

Indian Engineering Association: 6, Netaji Subhash Road, Calcutta-1; The Bombay Textile & Engineering Association: 343, Satar Building, Grant Road, Bombay-7; Mining, Geological & Metallurgical Institute of India: 29, Chowringhee Road, Calcutta-16; The Mechanical Engineers' Association (India): Janmabhoomi Chambers,

29, Fort Street, Ballard Estate, Fort, Bombay 1; The Institution of Engineers (India): 8, Coknale Road, Calcutta-20; The Association of Engineers: 24, Netaji Subhasi Road, Calcutta-1; Piectrical Engineering Society: Indian Institute of Science, Bangatore 12; The Sugar Technologists Association of India; P.O. Kalyanpur, Kanpur; Indian Geramic Society Co Banaras Hindu University, Vannasi-5; The Indian Institute of Architects: Prospect Charbers America, Dr. Dinabhai Naoroji Road, Bombay; The Octobers America, Dr. Dinabhai Naoroji Road, Bombay; The Octobers America, Presidency College, Calcutta-12; The Oil Technologists' Association of India: Nawabgani, Kanpur; Indian Society of Engineers: 12-B Nawabganj, Kanpur; Indian Society of Engineers: 12-B Netaji Subhash Road, Calcutta-1; The Indian Institute of Metals: 31, Chowringhee Road, Calcutta-16; The Textile Association: "Santosh", 72-A, Shivaji Park, Bombay-28; Gujarat Institute of Civil Engineers & Architects: Law College Road, Ahmedabad-6; The Aeronautical Society of India: 13/B. Indraprastha Estate, New Delhi-I; Institution of Surveyors: Kashmir House, King George's Avenue, New Delhi; Quality Control Association: 4, Richmond Road, Bangalore-25; Indian Institute of Chemical Engineers: Jadavpur University Campus, Calcutta-32; The Institution of Telecommunication Engineers: F/12, South Extension Part II, Ring Road, New Delhi; Indian Society of Rayon Technologists; 144, Dharavi Road, Bombay-17; Indian Leather Technologists' Association: Mercantile Buildings, Lal Bazar, Calcutta-1; Essential Oil Association of India: H. B. Technological Institute, Kanpur; Institute of Consulting Engineers: Central Office, 9, Hastings Street, Calcutta-1; International Commission on Irrigation and Drainage: Golf Links, New Delhi-3; The Society of Power Engineers: 'Cleremont', Simla-4; The Chemical Engineering Association: Indian Institute of Science, Bangalore-12; Indian Society of Theoretical and Applied Mechanics: Kharagpur.

TE OF EDUCATION

#### GENERAL SOCIETIES

Asiatic Society: 1, Park Street, Calcutta-16; Indian Association for the Cultivation of Science: Jadavpur, Calcutta-32; Bose Institute: 93/1, Acharya Prafulla Chandra Road, Calcutta-9; Indian Science Congress Association: 14, Dr. Birish Guha Street, Calcutta-17; Vijnana Parishad: Muir College, Compounds, Thornhill Road, Allahabad-2; The National Academy of Sciences: 5, Lajpatrai Road, Allahabad-2; National Institute of Sciences of India: Bahadur Shah Zafar Marg, New Delhi.

Indian Science News Association: 92, Acharya Prafulla Chandra Road, Calcutta-9; The Current Science Association: Bangalore; Science Club: 1110, S. N. Banerjee Road, Calcutta-13; Banqiya Bijnan Parishad: 294/2/1, Acharya Prafulla Chandra Road, Calcutta-9; Assam Science Society: Department of Mathematics & Statistics, Gauhati University, Assam; Kamarupa Anusandhan Samiti: Assam Rosearch Society, Gauhati; The Institute of Information Scientists: C.S.I.R. Building, Rafi Marg, New Delhi-1; All India Science Teachers' Association: 33, Probyn Road, Delhi-6; The Rajasthan Academy of Sciences: Pilani (Rajasthan); Indian Chemical Society: 92, Acharya Prafulla Chandra Road, Calcutta-9; Geological Mining and Metallurgical Society of India: Geology Department, Presidency College, Calcutta.

#### RESEARCH IN HUMANITIES

Research in the humanities—literature, language, arts, etc.—is engaging the attention of individual institutions scattered throughout the country.

Anjuman-Islam Urdu Research Institute, D. Naoroji Road, Bombay 1; Anthropological Society of Bombay, C/o K. R. Cama Oriental Research Institute, 136, Apollo

<sup>\*</sup> This has been included in this group for want of a separate grouping for this discipline.

Street, Bombay; Bangiya Sahitya Prashad, 243-1, Upper Circular Road, Calcutta; Bhandarkar Oriental Research Institute, Poona; Bharatiya Itihasa Samshodhaka Mandal, Sadashiv Peth, Poona; Bharatiya Vidya Bhawan, Chowpatty, Bombay; B. J. Institute of Learning and Research, Bhadra, Ahmedabad; B. M. Institute of Child Development, Pharmacy College, Navrangpura, Ahmedabad; Bureau of Psychology, Allahabad; D. A. Memorial Institute, C/o Bharatiya Itihasa Samshodhaka Mandal, Poona; Deccan College of Post-Graduate and Research Institute, Poona; Department of Anthropology, Indian Museum, 27, Chowringhee Road, Calcutta; Department of Archaeology, Ministry of Education, New Delhi; Department of Historical and Antiquarian Studies, Gauhati; Dharmakosha Mandal (Vedic Research Institute). C/o Prajna Pathshala, Wai, District Satara; Ganganath Jha Research Institute, Allahabad; Gokhale Institute of Politics and Economics, Poona; Gujarat Research Society, Bombay; Hindi Vidya Pith, Deoghar, Bihar; Indian Institute of Education, 11, Horniman Circle, Bombay; Indian Institute of Philosophy, Amalner, Dt. Jalgaon, Maharashtra; Kannada Research Institute, Dharwar; Karnatak Research Society, Dharwar; K. F. Jayaswal Research Institute, Patna; K. R. Cama Oriental Institute, 136, Apollo Street, Bombay; Kuppuswami Sastri Research Institute, Mylapore, Madras; Mandir Vidya Pith, Bhagalpur, Bihar; Marathi Sanshodhan Mandal, Mumbai Marathi Granth-sengrahalaya, Thakurdwar, Bombay; Mithila Institute of Post-Graduate Studies and Research in Sanskrit Learning, Darbhanga, Bihar; Nalanda Pali Institute, P.O. Nalanda, Patna; National Archives of India, Ministry of Education, New Delhi; Oriental Research Institute, Mysore; Rajasthan Vishva Vidya Peeth, Udaipur; Rajwade Samshodhan Mandal, Dhulia, Maharashtra; Scindia Research Institute, Ujjain; Shri G. K. Institute of Rural Education, Gargoti, Kolhapur District; Sheth Bholabhai Jeshingbhai Institute of Learning and Research, Bhadra, Ahmedabad; Shri Farbes Gujarati Sabha, Bombay; Tata Institute of Social Scien-ces, Chembur, Bombay; The Asiatic Society, 1, Park Street, Calcutta; Vachan Mantapa (Kannada Research Institute), Belgaum; Venkateswara Research Institute Tirupati; Vaidika Samshodana Mandal, Tilak Memorial. Poona; Vaishali Prakrit Institute, Muzaffarpur; Vishveshwaranand Vedic Research Institute, Hoshiarpur, Punjab.

#### OTHER RESEARCH SOCIETIES

Physical Science: Association of Applied Physicists, 92, Acharya P. C. Ray Road, Calcutta-9; Calcutta Mathematical Society, 92, Acharya P. C. Ray Road, Calcutta-9; Indian Chemical Society, 92, Acharya P. C. Ray Road, Calcutta-9; Bombay Geographical Association, Parle College Mablon, Bombay-57; Association of Indian Geographers, P.B. No. 644, New Delhi.

Medical Science: Association of Pediatricians of India, Back-Bay View, New Queen's Road, Bombay-4; Association of Physicians of India, "Dream Lands", New Queen's Road, Bombay-4; Helminthological Society of India, School of Tropical Medicine, Calcutta-12; Indian Medical Association, Shri Niwas, S. V. Patel Road, Bombay-4; Society of Experimental Medical Science (India), P-27, Prinsep Street, Calcutta-13; Tropical Diet Research Society, 1/6, Fakir Chakravarti Lane, Calcutta-6; Indian Society of Gastroenterology, D/3, Ansari Nagar, New Delhi-16; Association of Otolaryngologists of India, Lampert's Hospital, Marshal's Road, Egmore, Madras-8; The Indian Radiological Association, 148, Big Street, Madras; Madras Medical Association, Madras Medical College, Madras; Bombay Veterinary Medical Association, Rani Nagar, H. No. A-7/1, Nagpur.

Biological Science: Horticultural Society of India, Indian Agricultural Research Institute, Pusa Road, New Delhi-12; Indian Dairy Science Association, Hosur Road, Bangalore-1; Indian Ecological Society, I.A.R.I., Pusa Road, New Delhi-12; Indian Society of Agronomy, I.A.R.I., Pusa Road, New Delhi-12; South Indian Horticultural Association, Lawley Road, P.O. Coimbatore; Zoological Society of India, Zoological Survey of India, Calcutta.

Engineering & Technological: Engineering Association of Northern India, G.T. Road, Batala (Gurdaspur), Punjab; Indian Metallurgical Association, 20, Strand Road, Calcutta-1; Indian Pharmaceutical Association, Bharati Bhavan, 3rd Floor, 213-219, Frere Road, Fort, Bombay-1; Institute of Industrial Engineers, Hindustan Lever Ltd., Bombay; Society for Corrosion and Coating Technology, Govt. Test House, Alipore, Calcutta; Society of Electronics Engineers, Electronics Research and Development Establishment, P.O. Box No. 108, Bangalore-1; Institution of Electrical Engineers, 1, Forbes Street, Fort, Bombay-1; Technological Association, Dept. of Chemical Technology, Matunga Road, Bombay-19; Indian Roads Congress, Jamnagar House, Mansingh Road, New Delhi; Minerological Society of India, A.C. College Building, Guindy, Madras-25; Indian National Society of Soil Mechanics and Foundation Engineers, New Delhi.

General: Indian Academy of Sciences, Hebbal P.O., Bangalore.

# COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Scientific research under state auspices in India is carried out mainly through the Council of Scientific and Industrial Research and the various National Laboratories/Institutes set up under its control and in the universities and research institutes aided by the Council.

The promotion, guidance and coordination of industrial research in India and the utilization of the results of the researches towards the development of industries in the country are the main aims of this Council. During the past 20 years, the laboratories of the Council have carried out pioneering work in the development of technological knowledge for utilising the vast resources of the country. The services rendered by them in investigation and research on indigenous raw materials and adaptation of processes to Indian conditions have helped in the establishment of major industries in the country.

The research projects are selected on the priority basis by a Board of Scientific and Industrial Research consisting of scientists, technologists and industrialists. Greater emphasis is now being laid on applied research. The research programmes of the Council are currently being recriented to the needs of the country and to put to maximum advantage the available resources. The Council's laboratories have released about 270 processes to the industry, out of which about 135 processes are in actual production. Besides there are about 250 processes which are now ready for exploitation.

The Council has a liberal system of grants-in-aid through which scientists in other technical institutions, industrial laboratories and universities are supported to pursue fundamental and applied research and develop their own specialised fields of research. It also grants fellowships to qualified persons who wish to pursue science as career.

# National Research Development Corporation

(See under All India Corporations).

RESEARCH 53

#### NATIONAL LABORATORIES

There are 37 National Laboratories/Institutes/Units and three museums functioning under the Council of Scientific and Industrial Research. There are a number of regional foundry stations, drug farms and factories and other regional centres functioning under the various laboratories and institutes.

The names of the Laboratories/Institutes and Units with their locations (in Italics), at various centres in the country and the functions entrusted to them are as follows:—

National Physical Laboratory, New Delhi:—Research in problems relating to Physics, both fundamental and applied. Maintenance of Standards Testing facilities are also available.

National Chemical Laboratory, Poona:—Fundamental and applied research covering the whole field of chemistry for which other specialised institutes have not been set up. The National Collection of Type Cultures is housed in the Laboratory.

Central Fuel Research Institute, Jealgora (Bihar):—Fundamental and applied research on fuels—solid, liquid and gaseous. Physical and chemical surveys of Indian coals are conducted through seven coal survey stations under the Institute. It maintains seven coal survey stations.

Central Glass and Ceramic Research Institute, Calcutta-32:
—Applied research on different aspects of glass, pottery, refractories, vitreous enamels and mica; evaluation and utilization of indigenous raw materials, import substitution, development of new processes and products, improvement in quality of industrial products, standardisation, etc.; Undertakes investigations and projects sponsored by industry and operates pilot plants for the production of optical glass and radiation shielding windows.

Central Food Technological Research Institute, Mysore:— Food processing and conservation of food, food engineering and all aspects of fruit technology. Regional Fruit and Vegetable Preservation Stations at Trichur, Nagpur, Bombay, Lucknow, Mangalore, Simla, Jummu-Tawi and Cuddapah have been recently established.

National Metallurgical Laboratory, Jamshedpur:—Fundamental & applied metallurgical research. It maintains four regional foundry research stations; located in Punjab, Tamil Nadu and West Bengal.

Central Drug Research Institute, Lucknow:—All aspects of drug research including evaluation & standardisation of crude drugs, discovery of substitutes for pharmacopoeial drugs and plants, pharmaceutical and synthetic chemicals, biochemistry and biophysics, infection, immunisation, pharmacology, chemotherapy & experimental medicine.

Central Road Research Institute, New Delhi:—Research on road materials, testing of road materials and road surfaces.

Contral Electro-Chemical Research Institute, Karaikudi (Tamil Nadu):—Research on different aspects of electro-chemistry, including electro-metallurgy, electro-deposition and allied problems. The institute has two testing centres at Madras and Ramanathapuram.

Central Leather Research Institute, Madras:—Fundamental and applied aspects of leather technology. The institute has five extension centres at Calcutta, Rajkot, Jullundur, Kanpus and Bombay.

Central Building Research Institute, Roorkee:—Engineering and structural aspects of building and human comforts in relation to buildings.

Central Electronics Engineering Research Institute, Pilani (Rajasthan):—Design and construction of electronic equipment and components and test equipment.

National Botanic Gardens, Lucknow:—Collection & large-scale cultivation of economic and medicinal plants of industrial importance.

Central Salt & Marine Chemical Research Institute, Bhavnagar:—Investigation of production of pure salts, reduction in cost of production; economic utilisation of by-products of salt manufactures, development of new methods and technique for the recovery, production & utilization of various marine & allied chemicals.

Central Mining Research Station, Dhanbad:—Research in methods of mining, safety in mines and mine machinery.

Regional Research Laboratory, Hyderabad:—Research in problems relating to the industries and raw materials of the region.

Indian Institute of Experimental Medicine, Calcutta:— Research in various aspects of biochemistry as applied to medicine, bacteriology, etc.

Birla Industrial & Technological Museum, Calcutta:—A museum to depict scientific and technological advancement.

Regional Research Laboratory, Jammu-Tawi (Jammu & Kashmir):—Research in problems relating to the industries and raw materials of the region & research specially directed to medicinal plants of the Himalayas (Kashmir Region).

Central Mechanical Engineering Research Institute, Durgapur (W. Bengal):—Research in Mechanical Engineering in all its aspects. It maintains mechanical Engineering Research and Development Centres at Ludhiana, Poona and Madras.

Central Public Health Engineering Research Institute, Nagpur:—Research in all aspects of public health engineering and co-ordination of work of all interested agencies in this field in the country. A number of Field Centres and Units at various places have also been established by the Institute. The field centres are located at Sewage Farm Road, Ahmedabad and Dr. Annie Besant Road, Worli, Bombay.

National Aeronautical Laboratory, Bangalore:—Scientific investigations of the problems of flight with a view to their practical application to the design, construction and operation of aircraft in India.

Regional Research Laboratory, Jorhat:—Research problems relating to more efficient utilisation and better conservation of important national resources of Assam and surrounding areas with a view to aiding the industrial development of the region.

Regional Research Laboratory, Bhubaneswar:—Identification and exploration of problems of the region, bringing projects of potential local application to the attention of local industries and providing assistance to associated local industries in the testing of their products and quality control.

Central Indian Medicinal Plants Organisation, 4, Sapru Marg, Lucknow:—Co-ordination of activities in the development of cultivation and utilisation of medicinal plants and to develop the vegetable drug resources of the country. It has two zonal centres located at Bangalore and Haldwani (U.P.), and maintains four drug farms and factories in Jammu and Kashmir.

Central Scientific Instruments Organisation, Chandigarh:—Promotion and development of indigenous manufacture of scientific instruments for teaching, research and industry. Its service centres are located in New Delhi and Madras.

Indian Institute of Petroleum, Dehra Dun:—Research in petroleum refining and processing of natural gas, petro-chemicals, etc., and providing facilities for the training of personnel for oil and petroleum industries.

National Geophysical Research Institute, Hyderabad:—Gravitational, magnetic, electrical and seismic surveys for understanding the crustal structure of India and also study and improvement of methods and techniques of exploration.

National Institute of Oceanography, Miramar, Panaji, Goa:—Research on various aspects of physical biological, geological and chemical oceanography including prospecting for petroleum and minerals in sea bed. The Institute maintains Indian Biological Centre, Indian Ocean Physical Oceanographic Centre at Ernakulam. The International Biological Programme also functions at I.O.P.O. Centre, Ernakulam.

National Biological Laboratory (in planning), Palampur (Kangra Valley), Himachal Pradesh:—Both fundamental and applied research in modern aspects of biological sciences.

Structural Engineering Research Centre, Roorkee:— Research in specialised design and development work in structural problems connected with buildings, bridges and other structures.

Industrial Toxicological Research Centre, Lucknow:— To study the harmful effects of industrial toxins on skin, blood, gastro-intestinal tract, central nervous system, bones, etc.

Visvesvaraya Industrial & Technological Museum, Bangalore:—A museum to depict scientific & technological advancement.

Scientific and Technical Personnel:—The National Register maintained by the Division of Scientific and Technical Personnel, CSIR, is a clearing house of information regarding availability and utilisation of our scientists, engineers, technologists, medical personnel and social scientists in India and abroad. Based on the data in the Register and on independent surveys, the Division carries out man-power research on the general and special characteristics of scientific and technical personnel, and their utilisation or wastage. Research reports are published periodically in the Technical Manpower Bulletin. These studies help formulation of scientific personnel policies, recruitment, and man-power planning.

The Council operates a Scientists' Pool. It provides temporary placement and employment assistance to highly qualified scientific and technical personnel, particularly those returning from abroad. Special studies on the characteristics of Indians with recent foreign training, and their subsequent utilisation are being made.

Publications and Information Directorate: A major publication of the Directorate is the Dictionary of Indian Raw Materials and Industrial Produce published under the "Wealth of India".

The Directorate also brings out periodicals: Journal of Scientific and Industrial Research, Indian Journal of Chemistry, Indian Journal of Pure and Applied Physics, Indian Journal of Technology (Monthlies), Indian Journal of Experimental Biology, Indian Journal of Biochemistry, and Research and Industry (Quarterlies). Monographs on botanical and zoological topics and proceedings of symposia are among the other major publications.

A monthly journal entitled "Science Reporter" is brought out from 1964. A monthly journal in Hindi Vigyan Pragati is also published.

Documentation: The Indian National Scientific Documentation Centre (INSDOC), New Delhi established with technical assistance from UNESCO, provides a complete range of documentation services to individuals and institutions all over the country. Publications: Indian Science Abstracts (monthly) 1965 and Annals of Library Science and Documentation (Quarterly) 1954.

Sponsored Research: Through a liberal system of grants-in-aid, scientists in other technical institutes, industrial laboratories and universities are enabled to pursue fundamental and applied research and develop their own special fields. There are, at present, more than 720 such schemes in progress at more than 100 centres. Apart from the practical results achieved, the schemes provide opportunities of training of young research workers and develop centres of independent research. Junior and senior fellowships tenable in the universities as well as in national laboratories are also being awarded to talented young persons, besides financial aid to retired scientists. At present more than 1,220 such fellowships are tenable at universities, laboratories, and other research organisations.

Co-operative Research Associations: Co-operative research associations in different Industrial fields are being assisted in their capital and recurring expenditure and by way of technical advice, preparation of plans and procurement of experts and materials. Ten such associations now functioning are catering to the textiles, rubber, silk, art silk and paint, plywood, wool, tea and cement industries. Similar associations are in the process of being formed for foundry, automobile, radio and electronic industries.

Liaison & Extension Services: Active Industrial Liaison & Information Units have been set up in most of the National Laboratories to make direct contact with the industry, trade associations and users of research to identify the problems of industry and formulate them into research projects for the laboratories.

# NUCLEAR RESEARCH AND ATOMIC ENERGY

. The Tata Institute of Fundamental Research is the National Centre for advanced study and fundamental research in nuclear physics and mathematics and consists of a school of physics and a school of mathematics.

The Institute is the largest centre for cosmic ray research in India. Its nuclear emulsion group for the study of elementary particles is one of the largest in the world. The Institute also houses, as a national facility, an advanced and modern computer CDC 3600-160A. It also has a IMoV Cascade Generator. A high resolution radiotelescope for solar studies has been installed, at Kalyan, near Bombay.

A large cylindrical radiotelescope being constructed at Octacamund will be used for lunar occultation studies of radio sources.

Two other important institutions conducting research in nuclear physics are the Saha Institute of Nuclear Physics, Calcutta and the Physical Research Laboratory, Ahmedabad.

A high altitude research laboratory is functioning at an altitude of 9,000 ft. at Gulmarg in Kashmir. A similar laboratory is being established at Kodaikanal.

55

Two other units under the administrative control of the Department are the Radiation Medicine Centre and the Tata Memorial Centre in Bombay.

Considerable fundamental research in nuclear science and cosmic rays is also being conducted at various universities and research institutions all over India with financial assistance from the Department of Atomic Energy.

The development and control of atomic energy in India is regulated by the Atomic Energy Act (Act No. 33 of 1962) and the Department of Atomic Energy handles all business of the Government of India relating to atomic energy and functions of the Central Government under the Act.

The Atomic Energy Commission is responsible for (a) formulating the policy of the Department of Atomic Energy, (b) preparing the budget of the Department for each financial year and getting it approved by the Government, and (c) implementing Government's policy in all matters concerning atomic energy.

The scientific and technical work of the Department is carried out by the Atomic Minerals Division and the Bhabha Atomic Research Centre at Trombay near Bombay.

Some of the more important functions of the Atomic Minerals Division are: (a) geological survey for and development of atomic minerals, (b) geographical survey, (c) geochemical survey, (d) mineral technology, (e) drilling, (f) mining, (g) stockpilling, (h) conservation of minerals and (i) technical assistance and training.

# Bhabha Atomic Research Centre, Trombay

The Bhaba Atomic Research Centre (BARC), is India's principal centre for research in and development of atomic energy for peaceful purposes.

The work of BARC is organised under six major groups, viz. Physics, Engineering, Electronics, Metallurgy, Biomedical and Administration. Each group is under the charge of a Director and comprises three or more divisions. There is also a Directorate of Radiation Protection.

Every year about 150 science graduates and engineers are recruited and given intensive training for one year prior to being absorbed in the various projects of the Atomic Energy Department.

Research Facilities: Besides the reactors, the following principal facilities exist: (1) A 5.5 MeV Van de Graaff accelerator, (2) Mass spectrometers, (3) A 200 kv electron diffraction camera fabricated in the Establishment, (4) A slow chopper built in the Establishment, (5) A mechanical monochrometer built in the Establishment, (6) Crystal spectrometers and a double crystal spectrometer, (7) Spectrometers including double beam and vacuum grating ones, (8) Plasma torch built at Trombay, (9) Cloud chambers, (10) Magnetometers, (11) Various types of electronic instruments, (12) A multi-arm spectrometer built at Trombay, (13) Electro-magnetic isotope separator, (14) Experimental Electroliser to produce very pure hydrogen, (15) Various instruments used in chemical analysis such as fluorimeters, polarometers, spectro-photometers, calorimeters etc., (16) Freeze drying units storing blood plasma etc.

A 400-channel nuclear data processor has been built. There are a Seismic Station at Gauribidanur near Bangalore to detect underground nuclear explosions and a Gamma Garden at Trombay for carrying out investigations and studies on induction of mutations in plants.

The Radiation Medicine Centre is now adopting most of the recognized methods for the diagnosis and treatment of diseases with the aid of radioisotopes.

Production Facilities: (1) Uranium Metal Plant & Thorium Plant, (2) Fuel Element Fabrication Plant, (3) Radioisotope Production Facilities, (4) Heavy Water Pilot Plant, (5) Heavy Water Reconcentration Plant, (6) Plutonium Plant, (7) Electronic Instruments, (8) Vacuum equipment, mass spectrometers etc., etc. The Electronics Corporation of India Ltd. has been set up at Hyderabad for the commercial production of electronic equipment developed at Trombay.

## INDUSTRIAL OPERATIONS

Electronics Corporations of India Ltd., Hyderabad: It took over the activities of the Electronics Production Unit of the Bhabha Atomic Research Centre with a view to producing on a commercial scale a variety of nuclear instruments, control panels, etc. developed at B.A.R.C.

Rare Earths Plant, Alwaye and Thorium Plant, Trombay: See under "Government Industrial Undertakings".

Uranium Ore Mill: A uranium mill with a capacity to treat 1,000 tonnes of uranium ore per day is in operation at Jaduguda in Bihar. The process employed was developed in the B.A.R.C. at Trombay.

Uranium Corporation of India Ltd.: This company's registered office is in Jaduguda, Bihar. It is responsible for developing the uranium mine and for the operation of the Uranium Mill at Jaduguda.

Mineral Sand Industry: Indian Rare Earths Ltd. is currently operating two plants in Manavalakurichi (on the West Coast of Tamil Nadu) for the separation of ilmenite, monazite, rutile and zircon.

Uranium Metal Plant: This plant has an annual capacity of about 30 tonnes of nuclear grade uranium. A process for the production of ceramic grade uranium dioxide has been successfully developed on the basis of which design of a 250-tonne uranium oxide plant has been completed.

Heavy Water Reconcentration Plant: The plant is designed for the reconcentration of down-graded heavy water.

A small-scale electrolyser assembly for reconcentration of down-graded heavy water has also gone into operation.

A pilot plant for producing enriched Boron-10 used in neutron counters has been designed, fabricated and installed at Trombay.

Heavy Water Plant: The first Heavy Water Plant in Asia designed to produce 15 tonnes of heavy water annually in conjunction with the Fertilizer Corporation of India's Nangal Unit has been producing nuclear grade heavy water. It has been decided to set up at Kota a plant with a capacity of 100 tonnes of heavy water per year to meet the needs of the atomic power stations in Rajasthan and Tamil Nadu.

#### ATOMIC MINERALS

The Atomic Minerals Division of the Department of Atomic Energy has been engaged in country-wide exploration, prospecting and development of atomic minerals, particularly those of uranium, thorium, beryllium, columbium-tantalum, lithium, etc.

As a result of the investigations carried out, several uranium occurrences of variable grade, size and importance have been located in different parts of the country, the major deposits being those at Jaduguda, Narwaphar and Bhatin in the Singhbhum Copper Belt of Bihar. Favourable indications of uranium recently located in the Himalayan region in Kulu, Rampur-Bushahr and Garhwal, are currently under investigation.

The coastal tracts of India, together with several inland areas, particularly those of Ranchi (Bihar) and Purulia (West Bengal) are sources of large amounts of monazite and provide India with the largest thorium deposits in the world. Indian monazite contains 8 to 10 per cent  $\rm ThO_2$  and upto 0·3 per cent  $\rm U_3O_8$ . Total reserves of monazite are estimated at some 5 million tons with  $\rm ThO_2$  content of 0·45 million tons and  $\rm U_3O_8$  content of 15,000 tons.

Ilmenite, which is associated with monazite, forms reserves of about 100-150 million tons, of which 65·32 million tons are measured reserves, the rest accounting for indicated and inferred reserves. Reserves of zircon, which is also found in association with monazite-bearing sands, are estimated at about 10 million tons, of which 3·34 million tons constitute measured reserves and the rest indicated and inferred reserves.

Intensive prospecting has also led to the location of several new occurrences of beryllium, columbium-tantalum and lithium minerals, in addition to those already known in the mica belts of Bihar, Rajasthan, Madhya Pradesh and Andhra Pradesh, besides smaller ones in Tamil Nadu and Mysore.

The Division also helps private parties including universities and institutions interested in prospecting and mining atomic minerals by providing technical advice, loan of G.M. counters, analysing samples free of charge and by extending such other help as would promote and widen the field of exploration.

#### **NUCLEAR REACTORS**

Apsara: The first nuclear research reactor in Asia, outside the USSR, attained criticality on August 4, 1956. It is an enriched uranium light water moderated and cooled pool type reactor. The reactor is designed for a maximum power level of 1 MW.

A number of experimental facilities have been provided in the reactor which has proved to be extremely useful for fundamental and applied research in basic sciences and engineering, radicisotope production and training of personnel.

The first fuel charge was removed from the reactor in December 1964 since it had attained its maximum burn-up. Maintenance of various reactor components as well as improvements in cooling and control systems, were carried out in the first quarter of 1965. The reactor was started up with the second charge of fuel elements—also hired from United Kingdom—in June 1965.

The standard element of second fuel charge contains 140 gms. of U-235 (80 per cent enriched uranium). For normal operation the reactor core contains about 25 fuel elements.

Cirus: (formerly known as CIR) is India's second research reactor, built as a joint Indo-Canadian project under the Colombo Plan. The reactor attained criticality on July 10, 1960. The total cost of the project is approximately Rs. 10 crores, being shared in roughly equal proportions by the two countries.

Cirus is a natural uranium heavy water moderated and light water cooled high flux research reactor with a terminal power of 40,000 KW. It is operated round the clock. The reactor is used for basic and applied research

in physics, chemistry, biology, metallurgy and reactor technology, for the production of large quantities of high activity radioisotopes as well as plutonium-239 and uranium-233 and for the training of personnel for future reactor programmes.

The standard fuel rod contains about 55 kg. of natural uranium. For normal operation the reactor core contains about 185 fuel rods and 20 tonnes of heavy water.

Zerlina: Is India's third research reactor. It is a zero energy reactor for lattice investigations and new assembly studies. The reactor attained criticality on January 14, 1961 with a natural uranium—heavy water loading. The reactor is operated on a two shift basis upto a maximum power of 100 W and is being extensively used for physics and studies of uranium—heavy water lattices.

The standard fuel rod contains about 45 kg. of natural uranium. The standard core contains 80 fuel rods and about 8 tonnes of heavy water.

The natural uranium fuel elements of CIRUS and ZERLINA are fabricated in Trombay.

#### Directorate of Radiation Protection

The Department of Atomic Energy is responsible for country-wide radiation safety.

A country-wide film badge service is being conducted by the Directorate for persons working with radiation sources. The Service now covers nearly 1,100 institutions monitoring some 13,500 radiation workers. It is expected that the film badge service, radiological protection surveys and prior approval of plans for radiation installations will be made compulsory in the near future.

The Directorate conducts (i) a one year postgraduate course in radiological physics; and (ii) four short-term courses every year on the industrial, medical and other applications of radiation and the associated safety aspects. It does research and development in fields such as hospital physics, radiation dosimetry and instrumentation, radiation applications and radiation bio-physics. It is also responsible for the formulation and promulgation, under the Atomic Energy Act, of various rules and regulations relating to radiation safety.

#### Fuel Element Fabrication Facility

It went into operation in June 1959. The entire charge of fuel elements used for CIRUS and ZERLINA was fabricated here. The present capacity of this plant is about 30 to 40 tonnes of fuel elements per year.

A plant is being set up at Hyderabad for the fabrication of fuel elements for power reactors. A good deal of development work has been carried out in the existing facility at Trombay for the fabrication of power reactor fuel elements, which consists of sintered uranium oxide pellets clad in zircaloy.

## Central Workshops

A manufacturing facility for the production of specialised equipment and apparatus required for the country's nuclear research and development programme has been set up at Trombay at an approximate cost of Rs. 2·3 crores. The value of routine work-load on these shops is expected to be over Rs. 50 lakhs a year excluding work-load on major projects and large-scale fabrication of prototype equipment and experimental set ups. The workshops have already started fabrication equipment for the Rajasthan Atomic Power Project. Similar fabrication is being undertaken for other projects, resulting in savings in cost and foreign exchange. The workshops also undertake fabrication of Centaur two-stage rockets.

## Graphite Shop

This is a facility set up for the purpose of machining graphite of grades of nuclear purity. This shop undertakes machining of graphite required for the three reactors viz., APSARA, CIRUS and ZERLINA besides numerous other works such as graphite moulds, crucibles and other components required by the various Divisions of the Trombay Establishment for their research and development work.

## Radiochemistry Laboratory

This laboratory is equipped with the most modern facilities for handling plutonium and other higher radio-active elements. Research on various aspects of the fission of heavy elements is being carried out using radio-chemical techniques. Fission product isotopes are being supplied to various customers. A large number of scientists from the establishment as well as outside institutions including those from outside India have been trained in radiochemical techniques. The laboratory has now been shifted to its new permanent building, the Radiological Laboratories.

## Isotope Laboratory

This Laboratory is responsible for the production and processing of radio-isotopes like iodine 131, phosphorus 32, chromium-51, iron-59 etc. The laboratory has also facilities for the production of radiopharmaceuticals required for diagnostic purposes in nuclear medicine, and for the production of organic compounds labelled with carbon-14 and tritium. Facilities have been provided for the fabrication of multicurie scaled radiation sources of cobalt-60 and irridium-192 required for industrial use and also for development work connected with the applications of radioisotopes to industrial problems such as gamma radiography, siltation studies, etc. The Laboratory is now being shifted to the Radiological Laboratories.

#### Plutonium Plant

The irradiated fuel contains a small amount of plutonium, a valuable nuclear material along with a large quantity of radioactive fission products. Investigations have been conducted on the separation of plutonium from the irradiated fuel. A plant has been built at Trombay for treating primarily the natural uranium fuel rods irradiated in CIRUS for recovering plutonium from them.

A bigger reprocessing plant being built at Tarapur is expected to be completed by the end of 1973.

# Electronic Instruments and Components

The Electronics Division of Trombay Establishment has designed, developed and fabricated a variety of nuclear and industrial instruments which include Geiger Counters, Radiation Survey Meters, Contamination Monitors, High and Low Voltage Units, Scalers, Single Channel Analysers, Pulse Amplifiers, pH Meters, Electronic Multimeters, Oscilloscopes, Strain Gauge Amplifiers, Magnetic Amplifiers, Serve Amplifiers, Moisture Gauges, Density Gauges, Analog computer, Medical Spectrometers and Counting Systems, for use in the Trombay Establishment, Universities and Colleges and Medical Institutions using radiation sources and also for use of the Tarapur Atomic Power Station. A digital computer TDC-12 and a helium-neon gas laser have also been fabricated.

The Division has also produced High Stability Film Resistors, A computer facility built around H.400 Honeywell system has also been set up.

# Tarapur Atomic Power Station

The 380 MWE station at Tarapur has gone into operation. The station consists of two reactors of the boiling water type, and was built by the General Electric Company of the U.S.A. under a turn-key contract, on the basis of specifications provided by the Tarapur Atomic Power Project of the Department of Atomic Energy. The power station became critical at 8-37 a.m. on Feb. 1, 1969. Nuclear power began to flow from the station when it became operational at 8-15 p.m. on April 1, 1969.

# Rajasthan Atomic Power Project

The first unit of the station is expected to be in commercial operation by early 1971. The second unit, also of 200 MW is expected to be commissioned by 1973.

# Madras Atomic Power Project

Preliminary civil works of the station, which will consist of two reactors of 206 MW(e) each, is proceeding at Kalpakkam.

# SPACE RESEARCH

The Thumba Equatorial Rocket Launching Station (TERLS) has been established near Trivandrum, Kerala, by the Indian National Committee for Space Research (INCOSPAR) of the Department of Atomic Energy. The rocket launching facility became operational on Nov. 21, 1963 when the first Nike-Apache Rocket carrying a Sodium Vapour Payload was fired.

The scientific programme at TERLS is conducted on the basis of bilateral collaborative agreements between India and France, the USA and the USSR. The objective of the programme is to provide better understanding of problems of Equatorial Aeronomy including meteorology, particularly in the region up to 170 km.

A second rocket launching station is being set up on the east coast of India—on Sriharikota Island in the Nellore District of Andhra Pradesh. This station will be useful for launching satellites.

There is a Satellite Telemetry Station in operation, since 1961, at the Physical Research Laboratory, Ahmedabad, Currently, it is monitoring X-ray data from NRL Solar Radiation Satellite. It is also participating in a world-wide programme of ionospheric studies with S-66 ionospheric beacon satellites.

# Satellite Communication Station

The Government of India in the Department of Atomic Energy in collaboration with the United Nations has set up an Experimental Satellite Communication Earth Station at Ahmedabad in the area known as Jodhpur Tekra for the purpose of research and training in communications via satellites.

The Station went into operation in August 1967. There is a College of Satellite Communication Technology attached to the station.

The Department of Atomic Energy is building a Commercial Satellite Communications Earth Station at Arvi near Poona for the Overseas Communications Service.

# OTHER RESEARCH BODIES

Mineral Research: I. Geological Survey of India, Calcutta maps out the mineral resources of the country. 2. The Indian Bureau of Mines and The Mineral Information Bureau at Delhi help in the prospecting and working of minerals. 3. The Oil and Natural Gas Commission is responsible for the prospecting and exploitation of mineral resources.

Animal and Plant Research: 1. The Botanical and Zoological Surveys both in Calcutta conduct systematic surveys of the animal and plant resources of the country. 2. The Bose Research Institute in Calcutta conducts research in physics, chemistry, zoology and plant breeding. 3. The Birbal Sahani Institute of Palaeobotany at Lucknow carries on research in plant fossils.

Map Research: 1. The National Atlas Organisation in Calcutta does cartographic work. 2. The Survey of India with its headquarters at Dehra Dun is engaged in large-scale mapping of river basins and in the preparation of topographical maps.

Meteorological Research: The Meteorological Department of the Government of India at Delhi and Poona are concerned with meteorological, climatological, hydrometeorological and snow surveys.

Anthropological Research: The Department of Anthropology in Calcutta is concerned with ethnographic surveys and a variety of other studies in anthropology.

Physical and Chemical Research: The Indian Association for the Cultivation of Science in Calcutta is engaged in physical and chemical research, both in its theoretical and applied aspects.

Research in Radio Physics, Mathematics and Electronics: The Indian Institute of Radio Physics and Electronics in Calcutta conducts research in radio physics and electronics while research in cosmic rays and theoretical physics is carried out at the Physics Research Laboratory in Ahmedabad. The Institute of Mathematical Sciences at Madras carries on research in mathematics, applied mathematics and theoretical physics.

#### **ENGINEERING RESEARCH**

The Indian Standards Institution at New Delhi lays down specifications for materials, tools and products.

Among engineering institutions providing facilities for research the following may be mentioned:

All India Institute of Hygiene and Public Health, Calcutta: Sanitary engineering.

Central Building Research Institute, Roorkee (U.P.): Building engineering, prestressed concrete engineering, etc.

Central Electronics Engineering Research Institute, Pilani (Rajasthan): Electronics and telecommunication engineering.

Central Mechanical Engineering Research Institute, Durgapur (W. Bengal): Mechanical engineering.

Central Public Health Engineering Research Institute, Nagpur: Public Health and sanitary engineering.

Central Road Research Institute, New Delhi: Road engineering.

Concrete Research Laboratory, Chepauk, Madras: Structural engineering.

Indian Institute of Science, Bangalore: Aeronautical engineering, internal combustion engines, and power, hydraulic and electrical communication engineering.

National Aeronautical Laboratory, Bangalore: Aeronautical engineering.

Indian School of Mines and Applied Geology, Dhanbad : Mining engineering.

M. S. University, Baroda: Civil, mechanical and telecommunication engineering. P.S.G. & Sons, Charities College, Coimbatore: Civil, mechanical and electrical engineering.

Government College of Technology, Coimbatore: Heat engineering, hydraulic engineering, soil mechanics.

Indian Institute of Technology, Kharagpur: Mechanical engineering.

Madras Institute of Technology, Madras: Aeronautical and automobile engineering and soil mechanics.

University College of Science and Technology, University of Calcutta: Heat and Illumination engineering.

Indian Institute of Technology, Madras: Civil Engineering, Chemical Engineering.

Indian Institute of Technology, Bombay: Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgical Engineering.

Indian Institute of Technology, Kanpur: Aeronautical Engineering, Chemical Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, Metallurgical Engineering.

Indian Institute of Technology, Delhi: Mechanical Engineering, Chemical Engineering, Applied Mechanics, Civil Engineering, Electrical Engineering, Textile Technology.

A number of Ministries and Departments of the Government of India have development and research sections in engineering.

The Indian Agricultural Research Institute, New Delhi has a Division of Agricultural Engineering which is concerned with agricultural equipment.

The Ministry of Communications has a Research and Development Directorate which sees to the specifications, certification and manufacture of aircraft and aircraft material.

The Ministry has a Telecommunications Research Centre in Delhi.

The Technological Development Wing of the Ministry of Industries offers advice on engineering equipment in general and more especially on machine tools and internal combustion engines.

The Central Board of Irrigation and Power conducts eleven research stations the chief of which are in Poona, Amritsar and Poondi (Tamil Nadu State). The one at Khadakvasla near Poona is the most important. It conducts research in hydraulic engineering, soil mechanics, concrete materials and navigation.

The All India Radio has a research unit of its own in New Delhi.

The Railway Board has centres in Lucknow, Lonavla and Chittaranjan to investigate problems connected with railways.

Research projects connected with roads, bridges, ports, harbours are taken up for investigation by the Roads Organization under the Ministry of Transport.

Institute for Research in Reproduction, Opp. K.E.M. Hospital, Parel, Bombay 12.

Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry.

It may be added that two Power Engineering Research Organizations in Bangalore and Bhopal, are being set up with the assistance of the U.N. Special Project Fund with UNESCO acting as the executive agency.

## IRRIGATION RESEARCH

(See under article on Irrigation)

#### MEDICAL RESEARCH

Medical research is conducted chiefly under the auspices of the Indian Council of Medical Research, Medical Enclave (Ansari Nagar), Post Box No. 4508, New Delhi-16.

The control and management of the Council is vested in a Governing Body which, in scientific and technical matters, is assisted by a Scientific Advisory Board and its Expert Committees/Ad-hoc Expert Groups on specific subjects.

The Council publishes a Report on the research work carried out under its auspices and a monthly journal known as 'Indian Journal of Medical Research'. Special reports are also published from time to time.

The Council has established a Research Cadre and a Supernumerary Research Cadre to attract workers interested in biomedical research. A scheme for appointment of Emeritus Medical Scientists has been initiated to enable eminent retired scientists to pursue the research work in which they are specialised and to train younger workers.

The Council maintains the National Institute of Nutrition of Hyderabad, the Virus Research Centre, Poona (Virus-caused diseases), the Tuberculosis Chemotherapy Centre, Madras (Research on Tuberculosis), the Cholera Research Centre, Calcutta (to study various aspects of Cholera), the Indian Registry of Pathology, New Delhi (Reservoir of original case material and supply of teaching material for medical colleges in India) and an Occupational Health Institute, Ahmedabad (Research on problems relating to occupational health).

It has established a number of Units for important subjects. A Blood Group Reference Centre, a Reproductive Biology and a Contraceptive Testing Unit have been set up in Bombay. Besides, a large number of ad-hoc research schemes are sanctioned by the Council each year. In collaboration with the Central Council of Ayurvedic Research, the Council has set up a number of circuits for undertaking a comprehensive programme of research on indigenous drugs.

The Council also awards a number of research Fellowships. It also maintains a Library at Kasauli. Microfilm and Photocopy Service Unit has been set up at Kasauli.

Other prominent research institutions in medicine are:

School of Tropical Medicine, Calcutta: Diseases peculiar to tropical climate.

All India Institute of Hygiene and Public Health, Calcutta: Preventive and social medicine.

Indian Cancer Research Centre, Bombay: Cancer.

Vallabhbhai Patel Chest Institute, Delhi: Tuber-culosis and diseases of chest.

Central Leprosy Teaching and Research Institute, Tirumani (Chingleput): Leprosy.

Haffkine Institute, Bombay: Plague, malaria, virus diseases, nutrition. It also manufactures vaccines and sera.

Central Research Institute, Kasauli: Microbiology, biochemistry, serology.

Pasteur Institute, Cooncor: Rabies, influenza, tropical eosinophilia, anti-venom serum, serological reactions.

King Institute of Preventive Medicine, Guindy, Madras: Vaccines, specially against smallpox and therapeutic sera.

Bengal Immunity Research Institute, Calcutta (Private): Prevention, control and cure of disease, and anti-malaria drugs.

Central Drug Research Laboratory, Calcutta: Biological and chemical assays of drugs. It also gives technical advice to drug manufacturing firms.

Drug Research Laboratory, Jammu: Research in medicinal plants. Has two farms. Promotes standardization of indigenous drugs.

Central Drug Research Institute, Lucknow: Work on drugs.

National Institute of Communicable Diseases, Delhi:

Nutrition Research Laboratories, Hyderabad: Nutrition and allied subjects.

# SCHEDULED CASTES, TRIBES AND BACKWARD CLASSES

THE regional organisation of the Commissioner for Scheduled Castes and Scheduled Tribes, comprising 17 offices of the Deputy Commissioners for Scheduled Castes and Scheduled Tribes located in various States was wound up in June 1967, and the offices were transferred to the charge of the Directorate General, Backward Classes Welfare, a newly set up organisation in the Union Department of Social Welfare.

The total population of the Scheduled Castes and Scheduled Tribes according to the 1961 census, respectivel were 64,417,366 and 29,837,266 as against 55,327,021 and 22,525,477 respectively in 1951 census, while the percentage to the total population being 14.67 and 6.80 respectively in 1961 against 15.32 and 6.23 respectively in 1961.

See article on 'Population' for State-wise figures.

#### SAFEGUARDS

The Constitution of India has laid down certain safeguards for Scheduled Castes, Scheduled Tribes and Back ward Classes, the weaker sections of the people. These include reservation of seats in the legislatures, recruitment of tribal candidates to services and posts in the Union and State Governments, appointment of a Commission to report on the administration of the Scheduled areas and the welfare of the tribes.

A high power official committee set up by the Union Government has suggested that the special safeguards to Scheduled Castes and Scheduled Tribes be terminated by 1975. The committee is also understood to have made several proposals in detail for the revision of the lists of Scheduled Castes and Scheduled Tribes for purposes of entitlement to political, educational and economic benefits provided by the constitution.

The Union Government has decided to extend the period of reservation of seats in Parliament and State Legislatures for Scheduled Castes and Scheduled Tribes for a further period of 10 year from 1970. The Government has also decided to maintain the status quo in respect of the present list of Scheduled Castes for purposes of education and other safeguards.

# WELFARE SCHEMES Expenditure 1967-68

The estimated expenditure for 1967-68 under State and Central Welfare Schemes for Scheduled Castes and

Scheduled Tribes respectively (in Rs. Lakhs) was 473.18; 506.26 and 348.81; 605.32.

State-wise estimated expenditure on welfare schemes for Scheduled Castes and Scheduled Tribes respectively (Rs. lakhs) was as follows:—Andhra Pradesh 25·31; 45·76; Assam 28·27; 101·06; Bihar 51·05; 120·37; Gujarat 51·16, 107·38; Haryana 29·49; (a); Jammu & Kashmir 5·00; (a); Kerala 31·75; 7·02; Madhya Pradesh 36·57; 228·43; Maharashtra 143·81; 59·35; Mysore 20·00; 12·12; Nagaland (b); (b); Orissa 16·75; 133·00; Punjab 46·30; (a); Rajasthan 24·65; 39·01; Tamil Nadu 142·42; 13·97; Uttar Pradesh 173·20; (a); West Bengal 93·52; 50·73; Andaman & Nicobar Islands (c); 0·58\*; Chandigarh (b); (a); Dadra & Nagar Haveli (c); (a); Delhi 4·94\*; (a); Goa, Daman & Diu 0·99\*; 1·54\*; Himachal Pradesh 7·69\*; 5·50\*; Laccadive (c); 0·20\*; Manipur 1·02\*; (a); Pondicherry 3·19\*; (a); Tripura 2·16; 27·99; All-India 989·44; 954·13.

Forty-five per cent of those who benefited as a result of distribution of about one crore acres of land during the last 16 years, belonged to the Scheduled Castes.

Allocation and expenditure on Scheduled Castes and Scheduled Tribes for 1967-68 under Central and State Sectors respectively (Rs. lakhs) were as follows:

Scheduled Castes (Central Sector) 230 · 55; 506 · 26; State Sector 475 · 61; 473 · 18.

Scheduled Tribes (Central Sector): 563.07; 605.32; State Sector 394.90; 348.81.

#### TRIBAL DEVELOPMENT

As of January 1968, only less than 50 per cent of the tribal population was covered by the 415 tribal development blocks and 43 special multi-purpose tribal blocks. Each tribal block covers about 513 sq. km. and 25,000 people of whom, at least 66.6 per cent are tribals. It is proposed to cover areas of 50 per cent tribal population.

# State-wise allocation and expenditure under State & Central Sectors on welfare programmes of Scheduled Castes during 1967-68

(Rs. lakhs)

			Educa	ation	( Control of	P. C. Law	Economi	ic Uplift		Heal	th, Hous	ing & oth	ers
States/ Territories	NAT OF	Alloca	ation	Expen	diture	Alloca	tion	Expen	diture	Alloca	ation	Expend	liture
Territories		Central	State	Central	State	Central	State	Central	State	Central	State	Central	State
A. Pradesh	1	10.75	7.50	17.81	7.50	_		Para la	10 100	1.50			-
Assam		1.90	7.00	9.77	15.00	tools -	1.25	-	1.03	0.50	1.75	0.50	1.97
Bihar		15.30	19.05	30.05	17.53	969	1.85	100	1.68	1.40	2.80	-	1.79
Gujarat		15.80	14.00	29.62	18.83	-	2.23	-	2.00	0.75	0.20	0.62	0.09
Haryana		2.80	11.90	7.29	11.90	-	7.53	-	7.53	0.25	2.52	0.25	2.52
J. & Kash	mir	0.20	2.80	0.20	2.80	-	0.25	-	0.25	1.50	0.25	1.50	0.25
Kerala		8.30	14.94	8.30	14.94		3.45		3.45	0.25	4.81	0.25	4.81
M. Pradesl	h	11.45	18.34	15.97	18.34		1.33	_	1.33	0.50	0.43	0.50	0.43
Maharasht	ra	50.10	17.80	101.77	15-29		6.72	-	1.20	0.55	18.00	0.55	25.00
Mysore		9.00	21.33	27.89	21.33	-	5.03		5.03	0.50	5.25	0.50	5.25
Orissa		2.45	9-70	3.80	9.70		- 1		-	0.25	3.00	0.25	3.00
Punjab		4.15	18.00	21.51	18.00		4.70	_	4.69	0.85	1.46	0.85	1.25
Rajasthan		2.50	10.78	8.67	10.78		3.10		3.10	0.50	1.60	0.50	1.60
Tamil Nad	lu	16.30	55.30	32.05	57.56	-	23.52	-	22.07	0.75	39.00	0.89	29.85
Uttar Prad	lesh	44.00	34.60	123 - 10	34.60		14.00		14.00	1.50		1.50	
West Beng	gal	24.00	26.15	59.80	25.91	Brant .	4.51	_	3.67	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3.65	1000-	4.14
Delhi			2.25	-	1.24		0.05	WTO LES	0.03		4.15	-	3.67
Goa, Dan & Diu	nan		0.44		0.44					_	0.55	_	0.55
Him. Prad		The same	4.85	S JEE	4.85	N. K. Mary	1.65		1.65		1.19	100	1.19
		_	0.30		0.30		0.20	THE IN	0.20	_	0.52	-	0.52
Pondicherr			1.74	The Maria	1.19	1	0.47		0.31		1.46	-	1.69
Tripura		7710	0.56	MARK	0.52		1.55	-	1.36		0.30	-	0.28
Total		219.00	299.33	497.60	308-55	-	83.39		74.78	11.55	92.89	8.66	89.85

No allocations have been made for welfare programmes of the Scheduled Castes in Nagaland and for the territories of Andaman & Nicobar Islands, Chandigarh, Dadra and Naga, Haveli and Laccadives.

<sup>(</sup>a) No allocation under Scheduled Tribes. (b) State scheme only.

<sup>(</sup>b) No allocation under Backward Class Sector.

<sup>(</sup>c) No allocation under Scheduled Castes.

State-wise allocation and expenditure under State & Central Sectors on welfare programmes of Scheduled Tribes during 1967-68.

(Rs. lakhs)

		Edu	cation		JAL SEA	Econon	nic Uplift		Hea	lth, Hou	sing & ot	hers
States/ Territories	Allo	cation	Expen	diture	Alloc	ation	Expen	diture	Alloca	tion	Expen	diture
Terroories	Central	State	Central	State	Central	State	Central	State	Central	State	Central	State
A. Pradesh	1.25	2.28	1.91	1.061	24.40	15.17	24.40	16.71	2.25	1.66	1.07	0.61
Assam	9.00	19.50	26.02	19.502	43.10	6.00	43.10	5.772	1.25	5.50	1.49	5.182
	16.00	22.00	33.55	16.97	65.70	4.80	63 - 73	4.46	1.20	1.80		1.66
Gujarat	6.50	34.36	11.15	30.64	56.10	4.84	60.15	3.23	1.05	5.64	0.89	1.32
Kerala	0.20	1.66	0.20	1.66	0.80	1.99	0.80	1.99	-	2.37		2.37
M. Pradesh	9.10	56.93	10.03	56.93	134.60	18.21	134.60	18.21	2.70	5.96	2.70	5.96
Maharashtra	3.80	18.10	5.29	3.463	45.70	3.25	45.70	1.01	0.70	3.50	0.70	3.19
Mysore	1.10	3.40	1.10	3.40	4.10	2.25	4.10	2.25	_	1.37	to the same	1.37
Orissa	2.60	34.49	3.70	34.49	82.30	5.39	82.30	5.39	3.00	4.12	3.00	4.12
Rajasthan	2.20	5.26	4.25	5.26	20.70	7.20	20.70	7.20	1.55	0.05	1.55	0.05
Tamil Nadu	0.60	5.30	0.61	3.34	3.50	3.44	4.14	2.60	2.32	5.14		3.28
Uttar Pradesh		0.00	N.A.				Schemes					
West Bengal A. & N.	2.90	30.08	3.92	28.42	8.22	6.12	7.79	5.31	0.78	5.35	0.68	4.61
Islands	T-A-TAIL	0.38		0.24		0.82		0.22		0.71		0.14
Goa, Daman		0 00		0.21		0.04						
& Diu	-	1.67		1.54	_				9 9 4		-	-
H. Pradesh		1.90		1.90		2.40		2.40	4	1.20	_	1.20
Laccadives				_	4 12		L Mirans	1		0.20	-	0.20
Manipur	Harry VIII	الالله عالم		THE PERSON				To Links	1 10 -5			-
Tripura		2.16		1.85	-	27.21	100 m	24.19	to the	2.27		1.95
Total	57.05	239-97	101.73	210.66	489-22	109.09	491.51	100.94	16.80	45.84	12.08	37.21

In the States of Haryana, Jammu & Kashmir, Nagaland, Punjab, Uttar Pradesh, and the Territories of Chandigarh, Dadra & Nagar Haveli Delhi and Pondisherry no allocations have been made for the welfare programmes of the Scheduled Tribes.

<sup>1</sup> The figure relates to Telengana Region only. <sup>2</sup> For Plains only. <sup>3</sup> Anticipated.

#### **Voluntary Organisations**

Voluntary Organisations have been rendering a useful service in the cause of the backward classes. The Government of India have been assisting some such organisations of all-India character to undertake welfare work.

Information as regards the name of the organisation, grants-in-aid paid and the amounts spent respectively for the welfare schemes of Scheduled Castes during 1967-68 were as follows:—All India Harijan Sevak Sangh, Delhi, Rs. 5,67,500; Rs. 5,07,038; Bharatiya Depressed Classes League, New Delhi, Rs. 1,14,583; Rs. 1,24,560; Ishwar Saran Ashram, Allahabad, Uttar Pradesh, Rs. 66,920; Rs. 62,113; Indian Red Cross Society, New Delhi, Rs. 2,03,655; Rs. 1,47,674; Hind Sweepers' Sevak Sangh, NewjDelhi, Rs. 52,412; Rs. 52,088; Thakkar Bapa Ashram, Nimakhandi, Orissa, Rs. 8,000; Rs. 8,000; Ramakrishna Mission Vidyapith, Deoghar, Bihar N.A.; Rs. 27,500; Total Rs. 10,13,070; Rs. 9,28,973.

Name of the organisation, grants-in-aid and expenditure incurred for the Scheduled Tribes respectively during 1967-68 were:

Bharatiya Adimjati Sevak Sangh, New Delhi, Rs. 1,18,001; Rs. 2,15,974; Indian Council for Child Welfare, New Delhi, Rs. 38,930; Rs. 38,930; Andhra Pradesh Adimjati Sevak Sangh, Hyderabad, Rs. 70,577; Rs. 67,828; Ramakrishna Mission, Shillong, Rs. 24,120; N.A.; Ramakrishna Mission, Cherrapunji, Rs. 2,67,240; Rs. 2,42,453; Ramakrishna Mission, Kaladi, Kerala, Rs. 79,310; Rs. 96,000; Ramakrishna Mission Sevashram, Silchar, Assam, Rs. 19,200; Rs. 19,200; Andhra Rashtra Adimjati Sevak Sangh, Nellore, Rs. 14,500; Rs. 14,500; Central Social Welfare Board, New Delhi, Rs. 55,955; Rs. 43,000; National Council of Educational Research

and Training, New Delhi, Rs. 1,31,563; Rs. 77,222; Total Rs. 8,19,396; 8,15,107.

# REPRESENTATION IN LEGISLATURES

(Please see under lists of legislatures)

# REPRESENTATION IN GOVERNMENT Services

The quota reserved for Scheduled Castes and Scheduled Tribes in the Government of India services is as follows:—

Direct Recruitment on all-India Basis:

12½ per cent of vacancies filled by open competition and 16¾ per cent of the vacancies filled otherwise have been reserved for Scheduled Castes, and five per cent of the vacancies in all cases for the Scheduled Tribes filled through open competition or otherwise.

In cases of promotion, the following orders have been issued:

For Non-Selection Posts:

- (a) if promotion is made subject to the passing of a qualifying departmental examination, the standard of qualification for Scheduled Castes and Scheduled Tribes need not be so high as prescribed for other candidates:
- (b) if promotion is made otherwise than by a qualifying examination, Scheduled Caste and Scheduled Tribe Candidates should be adjudged sympathetically without applying too rigid a standard and the candidates belonging to these castes and tribes should not be superseded without their cases being reviewed at high levels.

## For Selection Posts:

(a) if promotions are to be made on the basis of a competitive examination, the communal orders will

apply and any Scheduled Caste and Scheduled Tribe candidates, who are above the minimum standard for necessary efficiency, may be selected for appointment against their reserved quota;

(b) if the promotion is made otherwise than through a competitive examination, no relaxed standards of merit are to be applied for Scheduled Caste or Scheduled Tribe candidates.

Employment Exchange Statistics (1967)

Scheduled Castes: Registrations during the year 421,272; Placements 47,621; No. on the live register at the end of the year 3,05,978; Number of vacancies notified as reserved for Scheduled Castes under Central Government 4,893; Vacancies notified under Union Territory 266; Vacancies notified under State Governments 3,444; Vacancies notified under State Governments 3,444; Vacancies notified for Scheduled Castes by others 1,014; (Total notified vacancies as reserved 9,617).

Scheduled Tribes: Registrations during the year 69,695; Placement effected 9,024; No. of applicants remaining on live register at the end of the year 53,792; Total number of vacancies notified as reserved for Scheduled Tribe applicants 4,042 (Central Govt. 2,842; State Govts. 960; Union Territories 34; and Others 206).

# Occupational Categories

The occupational classifications according to the live register, as on Dec. 31, 1967, of Scheduled Caste and Scheduled Tribe persons registered with the Employment Exchanges show the educational qualifications, viz. non-matric, matric and graduates\* respectively in bracket.

Scheduled Castes: Doctors 7 (—;—; 7); Engineers 103 (—;—; 103); Typists 2,853 (43; 2,737; 73); Stenographers 116 (3; 98; 15); Assistants/Clerks 29,208 (907; 25,646; 2,655); Teachers 6,122 (1,525; 4,374; 223); Craftsmen & Production process workers 11,942 (9,327; 2,599; 16); Unskilled workers 68,266 (65,877; 2,389;—); Unskilled labourers other than office workers 88,361 (87,793; 568;—); Others 99,000 (67,391; 29,466; 2,143); Total 3,05,978 (2,32,866; 67,877; 5,235).

Scheduled Tribes: Doctors 1 (—; —; 1); Engineers 11 (—; —; 11); Typists 207 (4; 202; 1); Stenographers 19 (—; 19; —); Assistants/Clerks 3,834 (113; 3,583; 138); Teachers 794 (231; 502; 61); Craftsman & Production process workers 1,990 (1,522; 468; —;) Unskilled office workers 11,800 (11,071; 729; —); Unskilled labourers other than office workers 15,631 (15,326; 305; —); Others 21,681 (15,771; 5,587; 323); Total 55,968 (44,038; 11,395; 535).

#### LEGAL AID, EDUCATION

Legal aid is provided by some State Governments from their own funds or from grants made by the Central Government. Allocations for legal aid in the Third Plan under the State Sector for Scheduled Castes and Scheduled Tribes respectively were Rs. 4.00 lakhs and Rs. 3.55 lakhs.

#### Education

Provision is made for grants of pre-matric scholar-ships to the Scheduled Caste and the Scheduled Tribe students. Most of the State Govts, are incurring a large expenditure out of their own budget also for grant of scholarships and stipends to the deserving students. In almost all the States, hostels are being run to make it possible for Scheduled Caste and Scheduled Tribe students to continue their studies. A limited number of students belonging to other communities are also admitted to

these hostels to avoid segregation. In many States mid-day meals to Scheduled Caste and Scheduled Tribe students have been started.

# **Educational Concessions for Converts**

The Government of India has decided to extend educational concessions at the College level to Scheduled Caste Converts to neo-Buddhism in Maharashtra and to Christianity in the south. There are about 360,000 neo-Buddhists in Maharashtra and 1,260,000 such converts to Christianity in the south. Special reservations in the Central Government Services are also considered for the Converts.

#### Girls' Hostels

The programme of setting up hostels for Scheduled Caste and Scheduled Tribe girls in the middle and secondary stages of education was continued during 1967-68. The hostels are put up in rural and semi-urban areas, where concentration of Scheduled Castes/Scheduled Tribes population and facilities for girls are inadequate. An amount of Rs. 9-00 lakhs and Rs. 11·25 lakhs was allocated, out of which Rs. 8·97 lakhs and Rs. 10·01 lakhs have been spent for Scheduled Castes and Scheduled Tribes respectively.

# Ashrams & Sevashrams

Ashram schools are residential institutions where training in different trades or crafts like carpentry, weaving, smithy, tailoring and agriculture is given along with general education. All expenses are borne by the Government. Sevashrams are day schools where training in spinning and gardening is given along with general education. The students are supplied with clothing, books, spinning material, etc., free of charge.

Many of the States have established ashram schools for spreading education at the primary and middle stages amongst the Scheduled Tribes.

Post-matric Scholarships: The number of post-matric scholarships awarded during 1967-68 to Scheduled Castes and Scheduled Tribes was 103,760 and 21,721 and the expenditure was Rs. 5,14,46,660 and Rs. 1,10,91,202 respectively.

Overseas Scholarships: During 1966-67 and 1967-68, 10 Scheduled Caste and 5 Scheduled Tribe candidates were awarded overseas scholarships under the Govt. of India Overseas Scholarship Scheme.

#### COMPLAINTS

During 1967-68, 1,429 complaints were received at the headquarters and regional offices of the Commissioner's organisation. The nature of complaints and their number in each case are as follows:—Practice of untouchability and harassment 120; Land and housing problem 145; Service matters 801; Education 177; Housing 120; Miscellaneous matters 66.

#### BACKWARD CLASSES

The principal criterion for determining Backward classes is their low social position in the traditional caste hierarchy of the Hindu Society. As many as 930 communities have been included in the above category and their estimated population is 115 millions. The Government of India have no recognised list of backward classes; but the State Governments have been advised to have their own lists of such classes based on economic criteria.

The Government of India has decided not to draw up any all India lists of Backward Classes and has advised

<sup>·</sup> Graduates include post-graduates also.

the State Governments to apply preferably economic tests than caste.

Following a judgement of the Supreme Court, the Central Govt. have accepted economic factors and not caste as the basis for determining the backwardness of people. Some of the State Governments have accepted this as the criterion for judging backwardness and other State Governments are being persuaded to fall in line.

# Denotified, Nomadic and Semi-Nomadic Tribes

In the past, denotified communities, originally known as criminal tribes, were subjected to severe police controls and kept outside the fold of the society. Schemes have been undertaken for them like establishment of ashram schools, provision of houses and house-sites, settlement on land and grant of subsidy for the development of house-hold industries, etc.

# METEOROLOGY

Normal Monthly and Annual Maximum Temperature in Shade at Selected Stations in India

Stations		Eleva- tion in metres	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
			°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.
Hill Stations															
Darjeeling			9.3	11.1	14.8	18.0	18.6	19.3	19.8	19.8	19.9	18.6	15.3	11.9	16.4
Shillong		1,500 $2,202$	15·5 8·5	$17.1 \\ 10.3$	21:5 14:4	$23.8 \\ 19.2$	23.7	$23 \cdot 7 \\ 24 \cdot 3$	$24 \cdot 1 \\ 21 \cdot 0$	$24 \cdot 1 \\ 20 \cdot 1$	23.6	21·8 17·9	$18.9 \\ 15.0$	16·4 11·3	$\frac{21 \cdot 2}{17 \cdot 1}$
		2,202	00	10 5	14 4	10 2	20 1	21 0	21.0	20 1	20.0	11.0	10 0	11 3	
Coastal Statio	ns														
Bombay		11	29.1	29.5	31.0	32.3	33.3	31.9	29.8	29.5	30.1	31.9	32.3	30.9	31.0
Madras		16	28.8	30.6	32.7	34.9	37.6	37.3	35.2	34.5	33.9	31.8	29.2	28.2	32.9
Stations on Plains	the														
Allahabad		98	23.7	26.7	33.3	38.8	42.1	39.8	33.6	32.1	32.8	32.6	29.0	24.8	32.4
Calcutta		6	26.8	29.5	34.3	36.3	35.8	34.1	32.0	32.0	32.3	31.8	29.5	27.0	31.8
Kanpur Cuttack		126 27	22·8 28·9	$26.0 \\ 31.5$	$32.7 \\ 35.9$	38·3 38·3	41·7 38·8	39.9	33.7	$32 \cdot 1 \\ 31 \cdot 6$	$\frac{32 \cdot 7}{32 \cdot 2}$	$32.7 \\ 32.0$	28·9 30·1	24·3 28·4	$\frac{32 \cdot 1}{32 \cdot 9}$
New Delhi		216	21.3	23.6	30.2	36.2	40.5	39.9	35.3	33.7	34.1	33.1	28.7	23.4	31.7
Lucknow		111	23.3	26.4	32.9	38.3	41.2	39.3	33.6	32.5	33.0	32.8	29.3	24.8	32.3
Patna		53	23.6	26.3	32.9	37.6	38.9	36.7	32.9	32.1	32.3	31.9	28.9	24.9	31.6
Plateau Statio	ns														
Dehra Dun		682	19·1 28·6	$\frac{21 \cdot 4}{32 \cdot 5}$	26·4 36·4	$32 \cdot 1 \\ 39 \cdot 7$	36·2 42·8	35.3	$30 \cdot 4 \\ 31 \cdot 2$	29·5 30·4	29.6	28·2 31·9	$24 \cdot 7 \\ 29 \cdot 9$	20.9	27·8 33·5
Nagpur		310	28.0	34.0	30.4	33-1	42 0	30 E	31 2	30 4	31.0	01.0	25 0	20	00 0
	No	ormal N	Monthly	and A	Annual	Minim	um Ten	nperatu	re in Sh	ade at S	elected :	Stations	in India	1	
Hill Stations															
Darjeeling			3.0	4.3	7.7	10.8	12.9	14.7	15.4	15.4	14.6	11.5	7.4	4.4	10.2
Shillong		а	3.6	6.4	10·5 6·8	$\frac{14 \cdot 1}{11 \cdot 2}$	15·5 15·0	17·4 16·2	18.1	17·8 15·2	16·6 13·8	12·9 10·8	7·7 7·3	4.5	12·1 10·1
Simla		maximum als	1.9	2.1	0.9	11.2	13.0	10.2	13.0	10.2	13.0	10.0	1.0	7.2	10 1
Coastal Station Bombay		xin	19.4	20.3	22.7	25.1	26.9	26.3	25.1	24.8	24.7	24.6	22.8	20.8	23.6
Madras	••	ma	20.3	21.1	23.1	26.0	27.8	27.6	26.3	25.8	25.4	24.4	22.5	21.0	24.3
0	the	table of mare re normals													
Allahabad		ta.	9.1	11.6	17.0	22.5	27.4	28.9	26.6	26.0	25.2	20.4	13.1	9.3	19-8
Calcutta		see	13.6	16.5	21.5	25.0	26.5	26.7	26.3	26.3	26.1	23·9 19·6	18.4	14·2 8·5	22·1 19·3
Kanpur Cuttack		1, 8 Der	8·6 15·7	$\frac{11 \cdot 0}{18 \cdot 2}$	16·3 22·1	22·0 25·3	27·2 26·9	28·7 26·5	26·6 25·6	25·8 25·6	25.5	23.7	18.8	15.5	22.5
New Delhi	• •	ation, see tal temperature	7.3	10.1	15.1	21.0	26.6	28.7	27.2	26.1	24.6	18.7	11.8	8.0	18.8
Lucknow		elevation, tempe	8.9	11.5	16.3	21.8	26.5	28.0	26.6	26.0	25.1	19.8	12.7	9.1	19.4
Patna	***		11.0	13.4	18.6	23.3	26.0	27.1	26.7	26.6	26.3	23.0	16.1	11.7	20.8
Plateau Station	28	For						00.0	00.1	00 =	07.0	10 1	70.0		10.0
Dehra Dun			$6.1 \\ 12.7$	$\frac{8 \cdot 2}{15 \cdot 1}$	12·4 19·1	$17.0 \\ 23.9$	21.5	23.6	$23 \cdot 1 \\ 24 \cdot 0$	22·7 23·7	21·3 23·1	16·1 20·0	10·3 14·1	$\frac{7 \cdot 0}{12 \cdot 1}$	15·8 20·3
Nagpur			12.1	19.1	19.1	20.0	20 1	200	44.0	Second Second					20 0
											The state of the s	• 8 7 U. U. O			

Normal Monthly and Annual Rainfall at Selected Stations in India

Stations	Eleva- tion in metres	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Hill Stations		mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
01. 111		$10 \cdot 9$ $14 \cdot 0$ $64 \cdot 8$	$31 \cdot 7$ $29 \cdot 2$ $70 \cdot 1$		$113 \cdot 3$ $146 \cdot 1$ $45 \cdot 7$	$231 \cdot 4$ $295 \cdot 4$ $59 \cdot 7$	597·1 475·7 149·1	809·5 358·9 416·1	$643 \cdot 4$ $342 \cdot 7$ $419 \cdot 1$	$445.5 \\ 302.3 \\ 182.4$	$142.5 \\ 188.2 \\ 33.3$	$   \begin{array}{r}     19 \cdot 6 \\     38 \cdot 3 \\     10 \cdot 2   \end{array} $	6·3 6·1 27·7	3105 · 2253 · 1542 ·
Madras	4 0	4·1 45·5	2·0 12·5	1·5 13·2	1·5 17·5	18·3 37·9	464·8 44·7	613·4 86·6	328·9 113·0	286·0 119·4	64·5 305·8	17·5 350·3	2·3 139·2	1804· 1285·
CL T. A.L.		19·6 11·9	20·6 27·9	14·5 34·0	5·3 50·5	14·0 133·9	96·0 290·1	313·4 331·2	261·1 334·0	217·4 252·7	$34 \cdot 3$ $127 \cdot 3$	8·6 27·2	7·6 4·1	1012· 1624·
Kanpur Cuttack New Delhi	ion,	13.7 $11.2$ $20.8$	18·3 27·7 23·6	$8 \cdot 4$ $21 \cdot 6$ $12 \cdot 9$	$   \begin{array}{r}     6 \cdot 1 \\     30 \cdot 7 \\     9 \cdot 7   \end{array} $	8·4 80·0 9·7	70·1 230·9 67·6	262·4 353·1 186·2	$274 \cdot 1$ $353 \cdot 6$ $169 \cdot 9$	$179 \cdot 1$ $236 \cdot 5$ $134 \cdot 9$	$30 \cdot 2$ $141 \cdot 7$ $14 \cdot 2$	$6.6 \\ 45.2 \\ 2.0$	7·4 7·1 8·6	884 · 1539 · 660 ·
Lucknow . Patna Plateau Stations		17·5 15·5	20.6 22.1	8·6 9·4	9.1	15·0 30·0	88·9 158·0	308·1 276·1	286·5 340·4	213.1 237.7	35·1 54·6	5·6 8·9	6.3 5.3	1014· 1166·
Dehra Dun . Nagpur .		57·9 11·4	66.8	37·9 16·8	19·6 16·3	35·8 20·8	184·4 222·0	$655 \cdot 6$ $376 \cdot 2$	$713.0 \\ 286.3$	$304.5 \\ 184.7$	41·9 54·6	7·6 19·8	$   \begin{array}{c}     24 \cdot 9 \\     9 \cdot 9   \end{array} $	1242

Statement of Sub-divisional means of rainfall in millimetres during the period June to September 1968 based on data of the India Meteorological Department observatories only.

Sub-Divisions		Actual	Normal	Departure from normal	Percentage departure from normal
Bay Islands		1552	1597	- 45	- 3
North Assam (including NEFA)		1497	1567	- 71	- 5
South Assam (including Nagaland, I	Manipur &			THE RESERVE	
Tripura)		1588	1551	37	2
Sub-Himalayan West Bengal		2067	2114	- 47	- 2
Gangetic West Bengal	**	1262	1107	155	14
Orissa		1010	1197	-187	-16
Bihar Plateau		1092	1109	— 17	- 2
Bihar Plains		963	1042	<b>—</b> 79	- 8
Uttar Pradesh, East		835	977	-143	-15
Uttar Pradesh, West		718	894	-176	-20
Haryana (including Delhi)		649	601	49	8
Puniah		522	493	29	6
Himachal Pradesh		862	1178	-316	-27
Jammy and Vachmin	**	330	357	- 27	- 8
Painathan West		97	261	-164	-63
Deineth Dei	**	470	631	-162	-26
Madhan D. 1 1 W	**	890	968	<del>- 78</del>	- 8
	***	996	1231	-235	-19
Madhya Pradesh, East Gujarat Region (including Daman, I	Dodno and	990	1201	200	
NY TI		597	824	-226	-27
		390	544	-154	-28
Saurashtra and Kutch (including Diu)	19		2218	-481	-22
Konkan (including Goa)		1737		<del>- 70</del>	-13
Madhya Maharashtra	**	456	525	- 77	-12
Marathwada		575	653	-139	-14
Vidarbha	** 0 ** :	825	965	-217	-39
Coastal Andhra Pradesh		338	555		-28
Felangana		560	774	-214	-24
Rayalaseema		294	388	- 94	-15
Tamil Nadu (including Pondicherry)		226	267	<b>— 41</b>	0
Coastal Mysore		2941	2945	- 4	-11
Interior Mysore, North		516	580	<b>—</b> 64	10
Interior Mysore, South		459	417	42	39
Kerala		2317	1663	654	19
Arabian Sea Islands		1171	987	183	19

Note:—In calculation of excesses, defects and their percentages rainfall figures are taken 0.1 mm. The plus sign is omitted where the departures are above normal.

FISHERIES 65

#### MONSOON RAINFALL SUMMARY

(June to September 1968)

The chief features were (1) Normal onset of monsoon over most parts of north India despite its late arrival over the rest of the country; (2) Serious floods and droughts in many states; and (3) Early withdrawal of the monsoon from north-west India at the end of August and its rapid withdrawal from the remaining parts of the country outside the south Peninsula in the second week of October.

Season as a whole: The monsoon set in over Kerala and Assam at the beginning of the second week of June, about a week later than the normal date. But it advanced into most parts of the north and Central India by about the normal dates and covered the entire country by 9th July. During June, July and August, spells of heavy rains led to flood in many states, notably in Kerala in July and in Gangetic West Bengal and Gujarat State in August causing serious havoc and loss of lives. There were prolonged spells of scanty rainfall in Andhra Pradesh and parts of Mysore and Maharashtra States in August and in Rajasthan, Gujarat State and Haryana in September.

The monsoon withdrew from northwest India at the end of August, about a fortnight earlier than the normal date. The further withdrawal was delayed till the second week of October, when it rapidly withdrew from the rest of the country and remained confined to the south Peninsula from 15th October. The noteworthy features of this year's monsoon was spells of heavy rains leading to devastating floods in some states and severe drought conditions in certain states including a few affected by floods.

The rainfall for the season was in defect over a large part of the country — in large defect in west Rajasthan, in moderate defect in Himachal Pradesh, east Rajasthan, Gujarat State, coastal Andhra Pradesh and Telangana and in slight defect in Orissa, Uttar Pradesh, east-Madhya Pradesh, Maharashtra State, Rayalaseema, Tamil Nadu and north interior Mysore. It was normal in the Bay Islands, Assam, Sub-Himalayan, West Bengal, Bihar State, Haryana, Punjab, Jammu & Kashmir, West Madhya Pradesh and coastal and south interior Mysore. Only over a small area, it was in excess — slightly so in Gangetic West Bengal and the Arabian Sea Islands and in moderate excess in Kerala.

# FISHERIES

India produces about 0.89 million tons of marine fish out of a total fish production of 1.3 million tons, which is only a quarter of the country's requirements estimated at about 4 million tons annually. About 1.9 lakh fishing craft including 1.16 lakh powered craft are estimated to be employed. The average catch is about 2,500 lbs. per man per year. The annual per capita availability of fish in India is estimated to be 3.4 lbs. as against 16 lbs. in Ceylon, 70 lbs. in Burma and 90 lbs. in Japan. The fishing industry in India offers employment to about a million persons and contributes annually over Rs. 60 crores towards the national income. About 27,000 tons of fish products, consisting mostly of dry, dry-salted and wet-salted fish, are annually exported to neighbouring countries.

Some of the steps taken by Government to improve fish production are mechanisation of fishing craft, training centres for fishermen, cold storage facilities, formation of deep-sea fishing stations and research at the four main central stations, viz., Central Inland Fisheries Station, Calcutta, Central Marine Fisheries Research Station, Mandapam, Deep-sea Fishing Station, Bombay and the Central Fisheries Technological Research Station, Cochin.

Today more than 1·1 lakh mechanised boats are operating on Indian coastline. In Bombay the local types of boats are being mechanised. New designs have been evolved for boats in Tamil Nadu, Kerala and Andhra States. Experiment in improved types of fishing with small power craft is also in progress.

Cold storage facilities exist in Bombay, Mangalore, Calicut, Cochin, Quilon, Trivandrum, Madras and Calcutta. Additional plants are being installed in many other places. Some of these plants have been provided under T.C.M. and Norwegian aid programmes.

PRODUCTION
Production is shown in the table below. About two-thirds of the catch are marine-fishes.

					0.	,0 001111000
Year				Marine	Inland	Total
1965	***		•	824	507	1,331
1966		-		889.9	477.5	1,367.4
1967				863 • 4	536.8	1,400 · 2
1968			1100	-	A STATE OF	1,620

The following is a list of the names of fishes showing within brackets their production in metric tons in 1966 and 1967 respectively:

Elasmobranches (37,428; 29,564); Eels (2,425; 2,534); Cat Fish (22,564; 24,299); Chirocentrus (7,877; 9,015); Oil Sardine (2,52,700; 2,59,102); Other Sardine (59,075; 32,202); Hilsa Itisha (1,542; 1,106); Other Hilsa (8,432; 6,835); Anchoveilla (26,677; 29,237); Thrissocles (8,831; 9,222); Other Clupeids (23,260; 22,332); Harpodon Nehereus (77,362; 74,882); Saurus (2,205; 1,768); Hemi hamphus and Belone (1,831; 1,485); Flying Fish (3,699; 3,094); Perches (12,136; 8,422); Red mullets (4,692; 1,358); Polynemids (4,589; 2,654); Sciaenids (25,999; 24,458); Ribbon Fish (45,110; 29,433); Caranx (19,680; 24,337); Chorinemus (3,473; 2,836); Coryphaenas & Elacate (314; 649); Trachinotus (22; 10); Leionathus (39,834; 43,769); Gazza (48; 54); Lactarius (5,872; 8,669); Pomfrets (17,832; 27,460); Mackerel (31,960; 29,194); Seer Fish (10,111; 9,917); Tunnies (3,063; 3,683); Sphyraena (1,069; 4,403); Mugil (1,488; 3,155); Bregmaceros (2,659; 2,107); Soles (7,431; 6,072); Penaeid Prawns (55,487; 62,170); Non-penaeid Prawns (35,432; 29,639); Other Crustaceans (3,716; 6,299); Cephalopods (997; 526); Miscellaneous (22,968; 24,732); Total marine (8,89,942; 8,63,443); Total Inland (4,77,458; 5,36,800); Grand Total (13,67,400; 14,00,243).

The total landing of marine fish by States for 1966 & 1967 is shown below:

	(In tonnes)			
	1966	1967		
	9,796	18,953		
	80,071	76,054		
Pondi-				
	1,47,530	1,32,505		
	3,46,729	3,64,129		
	65,639	49,185		
	1,34,257	1,33,302		
	89,339	75,633		
	24,600	12,460		
	330	410		
	660	812		
	8,89,942	8,63,443		
	Pondi-	1966  9,796 80,071  Pondi 1,47,530 3,46,729 65,639 1,34,257 89,339 24,600 330 ds 660		

## RESEARCH

Research in Fisheries is carried out primarily under the aegis of the following main central stations.

Central Inland Fisheries Research Institute, Barrackpore; Central Marine Fisheries Research Institute, Mandapam, Tamil Nadu; Central Institution of Fisheries Technology, Ernakulam, Kerala State.

The fishery research institutions have been brought under the jurisdiction of the reorganised ICAR.

#### MARKETING

For the improvement of fish marketing, six refrigerated railway vans are running—two at Palasa (Orissa)-Calcutta route, two in Calicut-Madras and two in Vijayawada-Howrah. One broad gauge and two metre gauge vans were introduced in 1968-69. Construction of three more refrigerated vans is in progress and was expected to be completed in 1969-70. These vans have highlighted the need for more such vans not only on these routes but on others as well. Arrangements are, therefore, being made for the construction of six more refrigerated vans.

To meet the urgent requirements of refrigerated road transport, arrangements were made for importing 26 road vans. A few such trucks were also fabricated locally. Six ice and cold storages were established one each in Gujarat and M.P., two each in Kerala and Orissa. Work on four freezing plants with provision for frozen storage one each in Andhra, Goa, Kerala and Orissa is being completed. During the year 1966, 25 ice plants, 19 cold storages, 6 walk in coolers and 4 freezing plants were established and 26 out of 50 ice plants, 50 cold storages, eight freezing plants and 11 storages were under construction. Four ice plants and 11 cold storages were completed during the year. Apart from the 41 ice plants, 46 cold storages, 11 freezing plants and 12 frozen storages were in various stages of erection during 1968-69.

The Central Fisheries Co-operatives (Marketing and Development) procured 1,108 tonnes of fish in 1967-68. During April 1968 to Dec. 1968, 897 tonnes of fish were procured against 680 tonnes in the corresponding period during the year 1967.

Exports: During 1966-67, 1967-68 and 1968-69 India exported fish and fish products valued at Rs. 111-0 million, Rs. 179-5 million and Rs. 230-0 million respectively.

#### TRAINING

The first two-year course for training District Fishery Officers in all aspects of fisheries, both marine and inland was imparted at the Central Institute of Fisheries Education at Versova.

For training fishermen there are centres at Satpati near Bombay, Veraval in Saurashtra, Cochin in Kerala and Tuticorin in Tamil Nadu. New training centres are being opened at Mangalore in Mysore State and at Kakinada in Andhra Pradesh. At these centres batches of 20 candidates are admitted for 6 months training.

The Central Deep-sea Fishing Station at Bombay gives training in modern fishing methods. During the seven years (since its starting in 1961) 136 candidates (including 17 from neighbouring countries) have completed this training in six batches and 47 candidates from 7th and 8th-batches are in training. Trainees have been absorbed in State/Central services. At the Central Institute of Fisheries Operatives, Ernakulam, the first batch of trainees for the Master Fisherman's Certificate Course and 34 for the Engine Drivers Course completed their training.

In order to meet the additional requirements of fishery operations in the Fourth Plan, three more training units are proposed in suitable centres. A training course for boat building foremen and gear technicians has commenced from July 1966. The Marine Products Training Centre, Mangalore (started with Japanese collaboration) provides training in canning, freezing, microbiology etc.

#### FOREIGN AID

The FAO, TCM and Indo-Norwegian Foundation continued to give valuable technical assistance. The term of the project for fisheries Training Institute, Bombay assisted by UNDF(SF) has been extended by another six menths with no extra cost. In addition a new scheme for Pelagic Fisheries investigation on Goa-Cochin sector at a total cost of 2.6 million dollars has been sanctioned. Also one fellowship on fisheries for overseas training was offered by UNDF(SF). Under the Indo-Norvegian projects signed in March 1967, for five years practical training and demonstration on deep sea exploratory fishing and modern technology are encouraged.

# FISHING HARBOUR

The construction of the fishing harbours at Veraval (Gujarat), Nagapattinam and Cuddalore (Tamil Nadu), Baypore (Kerala), Bhatkal (Mysore) and Vishakapatnam is completed. Eight fishing harbours have been constructed at Jaffrabad and Navabundar (Gujarat), Kagalhimi (Mysore), Kakinada (Andhra) and Azhikode and Ponnani (Kerala). Another eleven at Porbunder, Jaffrabad (2nd stage) and Umbergaon (Gujarat), Karwar, and Mangalore (Mysore), and Cannanore, Baliapatnam and Vizhinjam (Kerala) is in the process of completion. A similar one is proposed at the Tuticorin intermediate port (in Tamil Nadu). Two fishing harbours to accommodate mechanised boats and larger fishing vessels have been sanctioned for Bombay and Madras.

# ANDHRA PRADESH

Andhra Pradesh has a coast-line of about 600 miles. The continental shelf extends to 20 miles on an average with a fishable area of 12,000 sq. miles. There are 350 fishing villages in seven marine districts of A.P. According to the 1961 census the total number of fishermen and related workers engaged in fishing industry was 99,521 of which 22,223 were in the production of marine fish and 78,298 in the production of fresh water fish. The total number of fishing craft and tackle employed by them are 23,135 and 2,31,672 respectively as per the 10th Quinquennial Livestock Census of 1966.

The fish production of the State is estimated at 1,47,264 metric tons of marine fish and 75,921 metric tons of inland fish during 1968.

Marketing: Fish is being exported to Orissa and West Bengal. Exports of fish to West Bengal during 1968 from railway stations Vijayawada, Eluru, Tadepalligudem, Pithapuram, Samalkot, Kakinada, Tuni and Waltair stood at 18,168 qtls. 78 kgs.

Co-operatives: At the end of 1968-69 there were 557 fishermen cooperative societies with a membership of 53,467 and a share capital of Rs. 11·20 lakhs including 13 marketing and two apex central societies.

#### GUJARAT

Gujarat has a coast line of over 1,600 kilometres extending from Lakhpat in the north to Umbergaon in the south. It has a total fishable area of 120,000 sq. kilometres including the Gulf of Kutch and Gulf of Cambay.

FISHERIES 67

There are 46 important fishing ports and 130 other small roadsteads and fishing hamlets. No. of fishermen 2.5 lakhs; no. of active fishermen 30,000; no. of fishing vessels used in estuarine, coastal and offshore fishing: about 4,171 ranging from 1 to 15 tons. Total capital invested in fishing boats, engines, fishing gear and other accessories by fishermen and their co-operatives amounts to Rs. 2.5 crores.

Total landings in 1968-69: 1·27 lakh metric tonnes worth Rs. 6·17 crores. Local consumption in the State: 31,000 tons. Balance is exported to Bombay, Delhi, Calcutta, Ceylon, Burma, Singapore, Mauritius and U.S.A. Value of fish exported to foreign countries: Rs. 25 lakhs.

Inland fisheries are restricted to the districts of Baroda, Kaira, Panchmahals, Mehsana, Banaskantha, Kutch, Broach, Surat, Dangs and Bulsar. There are 2,300 fishermen engaged in inland fisheries. 41 lakhs of fish seed of major Carps and common Carps were supplied to the pisciculturists during 1968-69. Two fish farms and eight fish seed centres have been established.

Per capita earning of fishermen: Rs. 875 a year.

No. of ice factories 84; ice production 1,032 tonnes a day; no. of cold storages available 13; no. of mechanised boats: 1,179 (June, 1969). Quantity of fishing twine supplied: 40,000 kgs. Service stations 3; fishery schools: one each at Baroda, Bhadbhut, Umarsadi and Kolak; Cultural centres 27; Shark liver oil extraction centres 3; fish meal plant: one at Jaffrabad; Govt. of India institutions in the State: Marine Fisheries Research Station at Veraval; Survey Centre at Veraval; Offshore Fishing sub-station at Veraval; Central Institute of Fisheries Technology at Veraval.

The State has 69 co-operatives with about 15,388 members.

A research wing has been opened in the Directorate to conduct research on the offshore fisheries.

## KERALA STATE

Kerala State has a coast line of 590 Km. spread over 264 marine fishing villages. In addition to nearly 13,800 indigenous fishing canoes of various sizes and 8,500 catamarans, about 1,700 mechanised boats are also operating in Kerala waters. The fishing gear in use consists of 4,500 shore-seines, 21,300 boat seines, 35,800 gill nets and thousands of hooks and lines.

In 1968-69, 3,56,183·5 tonnes of marine fish worth Rs. 3,71,62,391 was landed. 9,757·4 tonnes of inland fish valued at Rs. 1,63,49,201 was also landed during the year.

Oil Sardine, Prawns, Horse mackerel, Soles, Lactarius, and Shark are the most important marine fisheries whereas Prawns, Barbus, Clarius, Mullet, Etroplus, Murrels etc. form the major inland fishery.

Approximately 55 per cent of the marine catches are consumed as fresh fish and 15 per cent are canned, salted and sun-dried. 18 per cent is frozen mainly for export, 7 per cent is used for preparation of fish meal and oil extraction, and 5 per cent for manufacture of fish manure. It is estimated that 60 per cent of the total produce is consumed in the State, 22 per cent sent to other countries and 18 per cent exported to foreign countries.

With only 10 per cent of the country's coastline, the State accounts for 40 per cent of the marine fish production in India, and 85 per cent of the foreign exchange earning of the country from Marine products.

In order to train fishermen in the use of mechanised fishing boats and modern fishing equipments 5 Fishermen Training Centres are functioning at Vizhinjom, Neendakara, Ernakulam, Beypore and Cannanore. 1,989 fishermen have completed training in these training centres, till the end of 1968-69. Besides these, there is a Staff Training Centre and 3 Regional Fisheries Technical High Schools.

There were 823 Producers' Co-operative Societies, 194 Credit Societies, 15 Regional Marketing Societies and 2 Marketing Federations in the State as on 31-3-1969. The total membership in these Societies is 1,03,630 and the paid up share capital is Rs. 16,59,887. Mechanised boats, Nylon nets etc. are distributed to fishermen through the Co-operative Societies.

There are 6 Research Stations in the State engaged in the research of marine, estuarine and fresh water fisheries.

There are 4 brakish water fish farms, one fresh water fish farm and nine major reservoir fishery centres.

Mechanisation of fishing, construction of fishing harbours with necessary shore installation like Ice Plants and Cold Storages, Boat Building Yard and Repairing yards, Training Centres etc., construction of feeder roads and community amenities like construction of houses, wells, latrine, issue of thatching grant, development of Reservoir fisheries etc. form part of the developmental activities of the State. During 1969-70 it is expected that six indigenous Gingha Trawlers would be acquired and commence fishing operation by the Kerala Fisheries Corporation.

#### TAMIL NADU

Tamil Nadu has a coastline of 997.47 kilometres with 9,000 square miles of inshore waters and a continental shelf of about 30,000 square miles and about 19,52,280 acres of inland waters. There are about 3.75 lakhs of fishermen spread over 415 inland and 308 marine fishing villages of the State. There are at present about 25,000 catamarans, 794 mechanised fishing boats, and about 103,455 fishing nets of different types and 2,18,000 hooks and lines.

The estimated landings of marine fish in 1967-68 were about 2,04,916 tonnes valued at Rs. 2,305·31 lakhs. The estimated landings of inland fish from various inland waters were about 1,15,935·66 M. Tons valued at Rs. 731·17 lakhs.

The four marine biological stations, Ennore, Krusadai Island, Tuticorin and Kanya Kumari, the three technological stations at Tuticorin, Nagapattinam and Kanya Kumari and the Fresh Water Biological Station at Bhavanisagar and Hydrological Station at Madras do research on fisheries problems.

The Pearl and Chank fisheries of Tamil Nadu are state monopolies and yield substantial revenue besides supporting a large population of skilled divers. About 2½ lakhs of chanks are fished every year in the departmentally operated Tirunelveli Chank Fishery, yielding a revenue of about Rs. 2 lakhs.

A quantity of 461.69 lakhs of fingerlings was collected during the year 1968-69. 779.27 lakhs of hatchlings were produced by induced carp spawning methods.

For providing suitable landing and berthing facilities, fishing harbours have been constructed at Cuddalore and Nagapattinam. Major fishing harbours at Madras and Tuticorin are under construction.

As on 1-8-1968 five fish curing yards are maintained by the Government wherein good quality salt is supplied to fishermen at subsidised rates for curing fish hygienically under the technical supervision. A quantity of 1,954-234 tonnes cured fish was released from the yards during the year 1967-68.

One ice plant, fifteen ice plant-cum-cold storage plants, two cold storage plants and six walk-in coolers are provided at important fish landing centres and fish markets.

A fish canning factory and a fish meal plant are working at Tuticorin. One freezing plant is working at Ennore and two other freezing plants one at Mandapam under Indo-Norwegian Project and another at Tuticorin are under erection.

The Department provides insulated, refrigerated motor vehicles to Fishermen Co-operative Societies and Fishermen Marketing Unions on hire and on hire-purchase basis for quick transport of fish from landing centres to marketing and consuming centres.

The fisheries of major reservoirs formed by hydel and irrigation projects have been taken over by the Fisheries Department for development and exploitation.

There were 184 inland and 252 Marine Fishermen Cooperative Societies, 8 Fishermen Cooperative Federations and 9 Fishermen Cooperative Marketing Unions during 1968-69.

There are six Fisheries Training Centres at Tuticorin, Nagapattinam, Cuddalore, Mandapam, Colachel and Madras training 50 fishermen per batch. One training centre for inland fishermen is located at Mettur Dam for giving training to 20 fishermen per batch.

An aquarium is located at Madras.

#### MAHARASHTRA

Maharashtra State has a coast line of 700 km. extending from Reddi in the south and ending at Zai in the north and aligning the maritime districts of Thana, Kolaba, Ratnagiri and Greater Bombay.

Catch of fish from marine and inland resources during 1968-69 was estimated at 2,26,900 tonnes and at 13,250 tonnes respectively. Value of marine catch to producers was estimated at Rs. 13.83 crores during the year 1968-69.

Out of 2.6 lakhs of fisher community, 52,100 fishermen are actively engaged in the industry, 32,100 in marine fisheries and 20,000 in inland areas.

Fishing crafts: Total number of vessels: 10,617.

Fishery Survey: Four medium sized trawlers of the department have completed survey of 12,431 sq. km. of sea, between Ratnagiri, Kolaba & Thana which resulted in the gainful exploitation of fishing with trawl nets.

Trawler Fishing: 150 mechanised vessels have successfully taken to trawling in the private sector, and four 36' trawlers for exploitation of deeper and farther seas.

Fish Farms: The four fish farms one each in Bhandara, Kolaba, Poona and Parbhani districts and 30 nursery units serve as a composite unit for demonstration of scientific methods of fish culture, biological studies of culturable varieties of fishes under controlled conditions and fish seed production centres.

Fisheries Technology: Technological work on fisheries is carried out at the Fisheries Technological Laboratory at Sassoon Docks.

In the year 1968-69, sale proceeds of Shark Liver Oil products and fish meal amounted to Rs. 21,33,710. The

production of neat shark liver oil with Vitamin 'A' potency 8000 I.U./g. was 33,677 litres.

The departmental fish canning plant, produced 78,895 fish cans in the year 1968-69.

The fish meal scheme recorded a sale of 673 metric tonnes of fish meal during 1968-69.

There are at present 66 ice factories and cold storages in the State with cold storage capacity of 1,834 tonnes.

Government continues to grant financial assistance to fishermen's Co-operative Societies for establishment of ice factories, cold storages and quick freezing plants.

Fishery education: The department has under its control eight fisheries vocational schools, one each at Satpati and Nawapur, District Thana, Karanja and Bagmandla in the Kolaba District, Ratnagiri, Sakrinate, Mithbao and Tarkarli in the Ratnagiri District. Total number of pupils in these schools is about 4,218. No fees are charged to pupils and text-books are provided to deserving pupils free of charge.

The Fisheries Department has also established a fisheries high school at Satpati, District Thana.

The departmental training centres are established at Versova, Ratnagiri, Alibag, Kolaba, and Bassein.

Mechanisation of fishing craft: Under this scheme financial assistance in the shape of loan and subsidy was so far being granted to groups of fishermen for purchase of engines and winches and construction of boats, decked boats and decking.

Government assistance to the fishing trade: Financial assistance: loan of Rs. 10.65 lakhs, subsidy of Re. 0.82 lakhs and Non-redeemable share capital of Rs. 13.35 lakhs were distributed to the Co-op. Societies for 67 engines, 29 winches, 63 boats, 6 decked boats and for decking of 21 boats under the mechanisation scheme. Loans of Rs. 4.24 lakhs were also disbursed to fishermen under other schemes.

Taraporevala Aquarium: During the year 1968-69, 7,20,909 persons including foreign dignitaries visited the aquarium.

Research & Investigation: The fisheries department has well equipped research stations at Bombay and Ratnagiri, where research is carried out on fisheries of regional importance and such aspects of marine biology as have a direct bearing on fisheries.

During 1968-69 as against the budget provision of Rs. 89,37,800 an expenditure of Rs. 59,15,400 was incurred on plant schemes.

Budget: Initial budget of the department for the year 1968-69: Rs. 2,72,98,500.

## MYSORE

Inland Fisheries: There are about 30,000 minor tanks, 2,700 major tanks, 17 reservoirs and about 3,800 miles of rivers in the State.

Inland Fisheries development is extended to all over the State.

Artificial Fish Breeding Centres: Tungabhadra fish farm, Hessarghatta fish farm, Neerasagar fish farm, Vanivilas Sagar fish farm and Bhadra fish farm.

An Inland Fisheries Research Station has been started at Bangalore with field laboratories at important inland centres.

The estimated fish production at present from the inland resources is nearly 40,000 metric tons.

Acreage of inland waters in the state is 10,20,000 (approximate). Inland fishermen population is estimated at 6,00,000.

Marine Fisheries: Mysore State has 200 miles of coastline on the Arabian Sea. Along this sea coast, there are many fishing centres, the most important of them being Karwar, Ankola, Kumta, Honnawar, Bhatkal, Majali, Bingi Chendia, Gangolli, Malpe, Udiyawar, Bokapatnam and Mangalore.

More than 40 varieties of sea fishes are landed out of which the most important are Sardine, Mackerel, Seer and Sharks and Prawns. The total fish production on Mysore coast is over 20 per cent of India's marine fish production.

The total landings on the Mysore coast is  $1\cdot 28$  lakh metric tons. Nearly 400 tons of frozen and canned prawns valued at about Rs. 40 lakhs are exported.

Value of fish exploited :-

Quantity of fish in metric tons and the approximate value:—North Kanara: 73,358; Rs. 2·81 crores; South Kanara: 42,225; Rs. 2·21 crores.

There are about 20,000 fishermen actively engaged in fishing, about 6,500 boats and about 37,000 nets. The number dependent on the fishing industry is estimated at over 1,00,000.

Average catch per fisherman per annum on Mysore coast 5.75 tons.

Capital value of the industry together for North and South Kanara districts is estimated at Rs. 2.5 crores.

Two boat building yards, one each at Mangalore and Karwar have been set up.

No. of fish curing yards:—North Kanara: 15; South Kanara: 15; fish seed production: 2.20 crores.

Under Indo-Norwegian project, work on providing harbour facilities, training of fishermen, boat construction and setting up of processing facilities have been taken up. At the Marine Products Processing Training Centre, Mangalore, training of technicians in fish (food) processing technology has been taken up in collaboration with Japan. It is expected that the collaboration projects with Norway and Japan will continue in the Fourth Plan. An applied nutrition programme sponsored by the UNICEF has been introduced.

Feasibility reports prepared by Messrs. Invest-Import of Yugoslavia for the development of six fishing harbours are being considered by the Government. The reports envisage an investment of Rs. 90 crores over fifteen years.

#### ORISSA

Kinds of sea fish caught: White Baits, Silver bellies, Jew fish, Seer fish, Ribbon fish, Perches, Sardines, Mackerel, Flat fish, Silverbar, Glass fish, Pomfret, Bombay duck, Catfish, Threadfins, Sharks, Rays, Skates and Eels, many types of clupeids like Pelone, Megalops, Indian shed etc. besides crustaceans such as Prawns and Lobsters.

Kinds of estuarine fish caught: Hilsa, Megalops, Elopes, Perches, Mullets, Milk fish, Catfish, Threadfins, Pomfrets, Shrimp, Croackers, Sawfish, Sharks, Rays etc. besides crustaceans like Prawns and Crabs.

Kinds of Inland Fish caught: Major Indian Carps, such as Rohu, Mrigal, Catla and Calbasu, the minor carps, Mahaseer, Catfishes like Wallago (Boalfish), Silondia, Pangus, Mystus, Bagarius, Perches, Murrels, many types of mud fishes, minnows, feather backs etc.

Important Marine fishing centres: Pattisonapur, Markandi, Gopalpur, Prayagi, Aryapalli in Ganjam district, Arkhakuda, Puri and Konark in Puri district, Paradeep in Cuttack district, Chandnipal, Aruhabad, Eram, Chandipur and Kirtania in Balasore district.

Important Estuarine Fishing centres: Sonapur and Surala (Bahuda estuary in Ganjam Dist.). Damodarpur and Gajapatinagar (Rusikulya estuary in Ganjam). Rambha, Koshpur, Chilka, Balugaon, Gangadharpur, Kuhuri, Kaluparaghat, Bhusandapur and Satpara in Chilka area. Astaranga and Machagaon in Devi river estuary, Kujanga, Jatadhara and Hookitola in Mahanadi estuary, Satbhaya, Chandinipal, Karanjmal in Dhamra estuary and Kirtonia in Subarnarekha estuary in Balasore district.

Important inland lake and reservoirs: Hirakud reservoir in Sambalpur district, Ansupa lake in Cuttack district, Bhanjanagar and Surada reservoir in Ganjam district. The reservoir at Chiplima (Sambalpur District) is being taken up as a carp breeding farm.

Processing Plants: Fish canning factory — Majhidiha; Fish freezing plant-cum-frozen storage — Majhidiha, Paradeep.

Preservation: In Orissa there are 8 ice plants-cum-cold storage in marine and inland fishing centres, 12 walk-in-coolers for preservation in smaller quantities and 2 mobile-flake ice plants.

Transportation: There are three refrigerated vans, besides a few insulated vans for special fish transport. During the year, these vans had transported four tonnes of prawns to Calcutta for export to U.S.A.

Marine fishermen cooperative societies (Districtwise): There are 99 co-operative societies. They are in Paschimbad, Adhuan, Arohabad and Balasore in Balasore district; Sonapur, Pattisonapur, Gopalpur and Merkandy in Ganiam district: Puri and Balugaon in Puri District.

Important Inland Fish farms: Kausalyaganga, Brickfield (Puri), Pipli, Laxmisagar, Kiakani and Kanjia (Baranga) in Puri District; Chaudwar, Killa (Cuttack), Barimul and Jajpur in Cuttack District; Dighi (Balasore), Amarda, Kathapal (Mayurbhanj), Digdan (Keonjhar Dist.), Angul (Dhenkanal Dist.), Sambalpur, Barapalli and Bomlei (Sambalpur Dist.), Bolangir, Loisinga and Sonepur (Bolangir Dist.), Humari, Berhampur, Balguntha, Parlakhemedi in Ganjam Dist., Jeypore in Koraput Dist., Bhawanipatna and Kokasara in Kalahandi Dist., Phulabani in Phulabani Dist. and Sundergarh in Sundergarh District.

Aquarium: There is a small experimental aquarium attached to the Fisheries Department at Cuttack.

Fishing Harbours: Under a scheme sponsored by Govt. of India, fishing harbours are to be constructed at a cost of Rs. 20 lakhs during the year 1969-70 at Gopalpur, Bauda in Ganjam district, Sarlicut in Puri district, Paradeep in Cuttack district and Adhuan and Chandipur in Balasore district.

Research: A scheme known as "Applied Research on Intensive Fish Production and Exploitation in Inland Waters" has been taken up in the year 1969-70.

Production (1968-69): Riverine Spawn 5,335 cups (1 cup is 50,000), Induced Breeding Spawn 277 cups, Carpio Spawn 139 cups, Fry 296 lakhs, Marine fish 800 M. tons, Inland fish 40·34 M. tons, Estuarine fish (Chilka) 3,160 M. tons, Canned fish products 752 kgs. Production of ice 1,283 M. tons.

Seven air conditioned fish breeding yards were expected to be established during 1969-70.

Orissa Fisheries Development Corporation: Established as a fully Govt.-owned concern for commercial exploitation of fisheries, it has not been successful during the last seven years. It owns four Polish trawlers for deep-sea fishing.

#### WEST BENGAL

Kinds of sea fish caught: Pomfret, Bhetki, Mackerel, Prawn, Topsi, Hilsa, Chanda, Bhola, Bombay Duck, Ribbon, Shark, Rays, Rock Cod, Skate, Eel, Cat fish, Phasa, etc.

Total quantity of fish caught in 1966-67: 120,000 tonnes (based on internal production only).

Potential demand for fish in the local market: 5,10,000 metric tonnes (the State as a whole).

Gear used: Grill net, Drift net, Drag net, Fixed net, Herring trawl etc.

Ancillary industries like shark liver oil, gelatin, glue, fish-meal, and their production: One scheme for production of shark liver oil, fish-meal, processed fish and utilisation of other fish by-products is operated at Contai coast.

Extent to which production meets the demand: 20 per cent.

Budget allotment for the Department for 1969-70: Rs. 72,36,000.

Research: There is one Freshwater Fisheries Research Station at Kalyani. There is one Technological Research Station at Junpat for production and standardisation of various fish bye-products and fish curing yards both at Junpat and at Fragergunge. Brackish Water Experimental Fish Farm at Junput, Hill-Stream Fisheries Research Station at Kalimpong and a number of Fish Seed Farms in a number of districts.

State Fisheries Development Corporation Ltd.: A State Govt. undertaking under the name and style 'State Fisheries Development Corporation Ltd.' has been functioning since 1967, with the sole object of developing all hitherto neglected large water areas through 'Master Plans' for increasing the internal fish output. The Corporation has already taken in hand so far three projects at Digha, Alampore and Maharajgunge covering 2,200 acres.

# ALCOHOL INDUSTRY

INDUSTRIAL alcohol is a very valuable material in the manufacture of acetone acetic acid, ether, chloroform, ethyl acetate polyethylene, styrene, polystyrene, etc. It is also necessary as a solvent in the manufacture of fine chemicals, medical preparations, toilets, etc. Since the last war, its importance has increased. It is now essential in the manufacture of ammunition and of artificial rubber.

(The details about the progress and achievements during the three Plans have been fully discussed in the Directory for the year 1965-66.)

It is estimated that during the Third Plan, Rs. 4.0 crores had been invested for attaining a capacity target of 324 million litres of alcohol by 1965-66. The imported component was likely to be about Rs. 40 lakhs.

The actual production of power and industrial alcohol are given below:

Thousand litres

Production									
Year	Power	Rectified spirit	Denatured spirit*						
1964	1,442	160,702							
1965	815	188,624							
1966	2,466	195,115							
1967	613	127,961	CONTRACTOR OF THE PARTY OF THE						
1968	381	163,153	NO WEST						

<sup>.</sup> Supply of statistics discontinued from 1964.

There was decline in capacity utilisation by the alcohol industry from 67 per cent in 1966 to 47 per cent in 1968. Total availability of alcohol, i.e., production plus imports minus exports was about 189,888 kilo litres in 1965. It shot up to 191,000 kilo litres in 1966 but came down to 143,000 kilo litres in 1968. The demand for alcohol is expected to go up to 300,000 kilo litres by 1971.

According to the Tariff Commission, there were 19 distilleries with a total production of 60,000 kilo litres at the time of independence. In 1965, there were 60 distilleries in the country with a capacity of 2.75 lakh kilo litres. Of these 37 were attached to sugar factories, and the rest were independent units. The latest data as available from D.G.T.D., put the present number of units at 65, with aggregate installed capacity of 3.12 lakh kilo litres.

The Maharashtra Government has granted a licence to Maharashtra Sugar Mills for the manufacture of potable liquor. A new brewery, built to a British design is also being planned to be set up in Maharashtra for the manufacture of Skol beer. The project is being promoted by Shaw Wallace and Co. Ltd. The brewery will cost £10 lakhs and have a capacity of 62,500 barrels. Because of the Government's regulations, all its brewing equipment will be manufactured in India. Its production is likely to go on stream by 1971. India is also seeking the assistance of FAO to make wines and to set up agro-industries.

Over the years, an acute shortage of alcohol has been felt by a number of industries. Prices of alcohol have risen by almost 50 to 80 per cent during the recent years. Almost Rs. 50 crores have been invested in industries dependent upon adequate availability of alcohol; these industries had been having a hard time in getting the same. The supply position had worsened since some States had begun setting up distilleries to manufacture alcohol for potable purpose.

Supply of alcohol has remained erratic over the years. Total licensed capacity for the production of ethyl alcohol was around 351 million litres, of which over 300 million litres had already been installed. But because of fluctuating production, India has had to import as much as 27 million gallons of alcohol in 1968.

Fall in output is mainly due to less production of sugar and molasses in the past few years.

# ARECANUT INDUSTRY

A RECANUT is one of the most important commercial crops of India. It has an important place in the religious, social and cultural life of our people irrespective of caste, creed or social status. Chewing of arecanut with betel leaves and lime (Thambulam, Pan Supari) has become a habit with some people and a luxury of many in the country.

India ranks first in the world both in the acreage and production of arecanut. It is a source of livelihood for nearly four million people in the country.

The chief arecanut growing States in the country are Kerala, Mysore and Assam. These States account for nearly 93 per cent of the total area and production of the crop according to latest available official estimates. It is also cultivated to a smaller extent in certain areas of West Bengal, Tamil Nadu, Maharashtra, Andhra Pradesh, Orissa and Union Territory of Goa. Recently, Gujarat has also taken up its cultivation.

The overall average per capita consumption of betelnut in India is estimated at 0.33 kg. In Kerala it is 0.67 kg. and in Mysore 0.66 kg. Among the cities, Delhi and Nagpur are two of the most important consuming markets.

Betelnut (processed arecanut) varieties are numerous in India and can be broadly classified into unboiled, boiled and coloured varieties.

During 1967-68 the country had an estimated area of 148,000 hectares under arecanut cultivation with a production of 129,000 tonnes of cured arecanut. The Statewise break-up is given below:

State		Area (in thousand hectares)	Production (in thousand m. tonnes)
Kerala	 	76.0	47.2
Mysore		35.9	48.0
Assam		26.4	26.3
Tamil Nadu		3.0	2.5
West Bengal	200	3.1	1.3
Maharashtra		2.3	2.4
Andhra Pradesh		0.2	0.2
Goa	 	1.3	1.2
Total		148.2	129-1

The production of arecanut is at present inadequate for meeting the demand for internal consumption. In the past, substantial quantities were being imported from other producing countries viz., Ceylon, Malaya and Singapore to wipe out the deficit. In recent years, owing to restrictive import policy adopted by the Government, the imports steadily came down. At present there is no import of this commodity. Small quantities are being exported to Nepal, Kenya, Aden, Saudi Arabia and Mozambique.

Development: An additional production of 24,000 tonnes of arecanut has been proposed to be achieved by the end of the Fourth Five Year Plan, mainly through intensive cultivation in the existing areas. Increase in area is normally not recommended particularly in view of the need for conserving as much area as possible for food crops and also in view of the increased production potential from the less productive regions. The developmental activities during the Fourth Plan period will be concentrated in the three major States of Kerala, Mysore and Assam. The measures

proposed are intensive cultivation practices like proper manuring, irrigation and plant protection in addition to proper cultural practices, under planting and gap filling etc. Implementation of suitable package programmes wherein loans and subsidies will be granted for manuring, plant protection and irrigation purposes is programmed on extensive scale. Organisation of field demonstrations is also programmed in the important crop growing regions to educate the farmers on modern methods of cultivation.

The Government of India have sanctioned two separate demonstration schemes under the central sector during the Fourth Plan period for the organisation of field demonstrations in growers' fields in Assam and for the establishment of a model garden in Goa in the Central sector. The Government of India have also agreed in principle to meet the cost of the staff for implementing the package programme for arecanut in the states of Kerala, Mysore and Assam. The target for additional production during the Fourth Plan has been set at 24,000 tonnes proposed to be achieved through scientific cultivation practices.

Marketing: Financial assistance in the form of managerial subsidy, share capital contribution and loan and subsidy for construction of godowns is being offered by the National Cooperative Development Corporation to meet the cost of management of the cooperative marketing societies in all important regions of production during the initial period in collaboration with the State Governments. There are 35 arecanut cooperative marketing societies located in the States of Kerala, Mysore, Tamil Nadu, Maharashtra and Goa, of which at present only four societies are receiving financial assistance for development of marketing of arecanut. The marketing societies in Mysore State handled about 35 per cent of the marketable surplus during the year.

The total quantity of arecanuts sold by the cooperative marketing societies during 1967-68 was 1,25,522 qtls. valued at Rs. 7·49 erores, which formed about 13 per cent of the total marketable surplus in the country, against 1,34,927 qtls. valued at Rs. 8 erores in 1966-67. The total membership and share capital of these societies rose from 60,509 and Rs. 46·30 lakhs during 1966-67 to 68,568 and Rs. 52·95 lakhs respectively during 1967-68.

Regulated Markets: Regulated markets have been established in the important assembling centres in Mysore and Kerala (Malabar region) States under the Agricultural Produce Markets Act. The regulated markets besides checking the malpractices prevailing in the trade, also collect and disseminate market intelligence for the benefit of growers and traders.

Grading: With a view to standardising the grading of arecanut and introducing Agmark grade standards at farmers' level in Mysore and Tamil Nadu states, the Government of India in collaboration with the respective State Governments have implemented schemes on an experimental basis in respect of sun dried whole, boiled whole and boiled split types of arecanuts. It was reported that the graded arecanuts had a favourable demand and fetched a premium price in the markets. The grade specifications which were on trial under this scheme have been taken up with the Agricultural Marketing Adviser to the Government of India for prescribing Agmark grade standards under the Agricultural Produce Grading and Marketing Rules.

Publicity: Propaganda materials in the form of bulletins, leaflets, pamphlets, charts, posters, etc. on the improved methods of cultivation based on the results of research, selection of seed materials, control of pests and diseases, market prices of the important trade varieties in the country and other matters of general importance to the farmers, are brought out and distributed amongst the

growers in all the important producing areas of the country. Besides this, at the various exhibitions/fairs etc. the techniques of improved agricultural practices are explained to the farmers. The Government of India also publishes a Quarterly Bulletin on arecanut and spices in English, Malayalam and Kannada languages for the benefit of the growers.

# **CASHEW NUT INDUSTRY**

THE Cashew is grown extensively in several parts of the country and there are over 150 cashew processing factories, about 100 of which are situated in and around Quilon, which is the nerve centre of this industry. India has not reached self-sufficiency in the production of cashew nuts. The Cashew Development Council, Calicut is introducing a development programme by which an additional area of six lakh acres could be brought under cashew plantation and replanting scheme in old plantation areas, during the Fourth Plan period.

#### CASHEW TREE

The cashew tree (Anacardium Occidentale) is a drought resistant tree, adaptable to different kinds of soils and thriving under a variety of climatic conditions. But maximum production is obtained from good soil, preferably deep loam with adequate moisture.

Cashew tree ordinarily grows to a height of 20 to 30 ft. but in certain favourable conditions reaches a greater height.

#### **CULTIVATION**

The cashew tree is usually raised from seed and after sowing, practically no attention is paid to the crop, either by way of watering, manuring or other kinds of intercultivation. Being a hardy plant, it comes up well even under diverse conditions of soil and climate.

#### FLOWERING

The tree commences flowering from the 4th or 5th year. Normal yields can be obtained from the 8th to 10th year onwards and the tree continues to be productive for over 30 years.

The actual yield depends upon a variety of conditions and may vary from about 5 lbs. of dry raw cashew nuts to 50 lbs. per tree.

#### CASHEW APPLE

What distinguishes the cashew from all other fruits, is the formation of the nut which grows at the bottom end of the 'apple'. The 'apple' varies in size from 2 to 3 inches in length and 1½ to 2 inches in width. It has a thin waxy skin and is conical or pearlike in shape. It is a juicy fruit which, when fully ripe, is quite sweet and has a pleasant aroma. This fruit is particularly rich in Vitamin C. Botanically speaking the 'apple' is only the swollen end of the peduncle to which the cashewnut is attached.

A small percentage of the production of the apples is directly consumed and some quantity is used for the manufacture of vinegar, pickles, jam, beverages etc.

#### RAW CASHEW NUT

The whole cashew nut, which is attached to the end of the cashew apple, is about  $1\frac{1}{2}$  inches long and is grey, brown or ash coloured. It is shaped like the kidney.

#### CASHEW KERNEL

The cashew kernel inside the nut, has a delicious taste, pleasing flavour and high nutritive value. It compares favourably with almonds and other nut foods in nutritive value. Cashew kernels contain about 21 per cent carbohydrates and appreciable quantities of calcium, phosphorus, fat, iron and vitamins A and B. Compared to other edible nuts, cashews contain a lower percentage of carbohydrates, fats and alkalinity and this gives it a definite advantage over other nut foods. Cashew kernels are consumed raw or fried, salted or sugared. It is considered as an ideal snack item in many countries. It is also widely used as a flavouring medium in the confectionery and baking industry.

#### **EXPORT**

Accounting for 90 per cent of the world demand for cashew kernels, Indian exports were valued at Rs. 60.9 crores in 1968-69.

#### PROCESSING

After collection of the raw cashew nuts, they are processed in cashew factories. Processing consists of roasting, shelling, peeling and grading.

#### PACKING

Cashews are packed for bulk exports in tins each containing 25 lbs. net weight of cashew kernels. The 'Vitapack' method employed for packing, provides for exhaustion of air from the tins and infusion of Carbon-di-oxide, before the tins are hermetically sealed. The tins are packed in wooden cases, cardboard cartons two in each case/carton and the cases are boxstrapped, before shipment.

Cashews, both plain and salted are also packed in small consumer size containers, of various capacities. While the greater part of exports are made in bulk packings, cashews packed in consumer size packings are also being increasingly exported to foreign markets.

#### QUALITY CONTROL

Qualified entomologists make regular inspection of cashew processing factories, affording all guidance and help to maintain these in hygienic and ideal conditions. To ensure that only cashews of approved standards are exported, a system of compulsory pre-shipment inspection is in force in India.

# DIFFERENT APPROVED GRADES OF CASHEW KERNELS

1. 210 Count Wholes (W 210); 2. 240 Count Wholes (W 240); 3. 280 Count Wholes (W 280); 4. 320 Count Wholes (W 320); 5. 400 Count Wholes (W 400); 6. 450 Count Wholes (W 450); 7. 500 Count Wholes (W 500); 8. Scorched Wholes (S W); 9. Scorched Wholes Seconds or Scorched Wholes 1.A. (SSW or SW 1.A); 10. Dessert Wholes (DW); 11. Butts (B); 12. Splits (S); 13. Large White Pieces (LWP); 14. Small White Pieces

(SWP); 15. Baby Bits (BB); 16. Scorched Butts (SB); 17. Scorched Splits (SS); 18. Scorched Pieces (SP); 19. Scorched Small Pieces (SSP); 20. Scorched Pieces Seconds or Scorched Pieces IA (SPS); 21. Dessert Pieces (DP); 22. Dessert Small Pieces (DSP); 23. Dessert Butts (DB); 24. Dessert Splits (DS).

(Grade designation is given within brackets).

#### CASHEW-NUT SHELL LIQUID

Cashew-nut Shell liquid (CNSL) is a by-product of cashew industry. The nut has a shell of about \( \frac{1}{6} \) inch thickness inside which is a soft honeycomb structure containing a dark reddish brown viscous liquid. It is called the cashewnut shell liquid, which is the pericarp fluid of the cashew-nut.

Chemistry of CNSL: The cashew-nut shell liquid consists chiefly of the two naturally produced phenolic compounds — Anacardic acid (about 90 per cent) and Cardol (about 10 per cent).

Analysis and Specification: The specification of the Indian Standards Institution, New Delhi for untreated cashew-nut shell liquid (IS: 840-1956) is as follows:

Specific Gravity, 30°C/30°C	••		0.940 to 0.960
Viscosity at 30° in centipoises (max	.)		550
Moisture, per cent by weight (max.			1.0
Matter insoluble in toluene, per cent	by	veight	
(max.)			1.0
Volatile matter other than moisture	e, per	cent	
by weight (max.)	1		1.0
Iodine value (Wijs) min			220
			unless other- wise agreed.
Ash, per cent by weight (max.) Polymerisation			1.0
(a) Time in minutes (max.)		100	19
(b) Centipoises at 25°C (min.)		1	30

Uses and Applications: The innumerable industrial applications of the cashewnut shell liquid are based on the fact that it lends itself to polymerisation by various methods.

#### PATENT BOOKS

The Cashew Export Promotion Council, Ernakulam has published a collection (in two volumes) of 243 patents on Cashew-nut Shell Liquid taken in the U.S.A., U.K., Japan and India. The publication describes the various uses and applications of the shell liquid in the manufacture of paints, chemicals, plastics, brake linings, etc.

#### EXPORTS†

The export of cashew kernel and cashew shell liquid fetched Rs. 62·16 crores during 1968-69. But owing to low

production of raw nuts, the country had to import 1.96 lakh tonnes of raw nuts from East African countries, costing Rs. 31.38 crores during the year. The net earning of foreign exchange was Rs. 30.78 crores.

#### **Export of Cashew Kernels**

(Quantity in M. Tonnes)

Countr	ies		1966-67	1967-68	1968-69
U.S.A			22,400	27,400	29,860
U.S.S.R.			15,500	11,100	19,800
U.K			2,900	2,700	2,400
East Germany	7		2,800	2,300	2,470
Australia			1,500	1,600	1,960
Canada			1,400	1,900	2,170
France			500	400	400
Japan			500	300	500
Netherlands			500	600	640
Hong Kong			500	400	600
West German	y		460	500	700
Czechoslovaki	a		430	400	400
Lebanon			300	200	330
Belgium			200	200	140
Malaysia & Si	ngapo	re	170	200	270
New Zealand			110	100	200
Iran			90	30	110
Poland			70	50	140
Sweden			60	60	60
Italy			60	60	40
Spain			60	160	110
Kuwait			60	50	90
Switzerland			40	50	40
Bahrain			30	30	50
Total exports	inclu	ding	MATERIAL PROPERTY.		1
other count	ries		50,760	51,040	63,661
Value in Rupe	ees				
(millions)			428	430	609

#### Export of Cashew-nut Shell Liquid

(M. Tonnes)

				(414	. Louines
Countr	ies		1966-67	1967-68	1968-69
U.K			5,100	4,300	4,510
U.S.A			3,900	2,800	2,320
Japan			2,400	2,100	3,070
Australia			100	30	25
Netherlands			80	12	167
South Korea			60	110	76
Greece			40	20	
Total exports		ding	11,760	9,440	10,415
Value in Rs.	Millio	ons)	20.1	13.9	12.3

# CEMENT INDUSTRY

THE cement industry in India occupies a position of basic and strategic importance in the economy.

During the first Plan period production of cement increased from 2·7 million tonnes to 4·6 million tonnes. During the Second Plan period, it rose from 4·6 million tonnes to about 7·8 million tonnes. By the end of the Third Plan, the production of cement rose sharply to about 12 million tonnes.

The trend of capacity and production during the last five years is indicated below:

			(In la	akh metri	c tons)
	1965	1966	1967	1968	1969*
Capacity	113	126	128	138	72
Production	106	111	117	119	64

<sup>\*</sup> Relates to the first six months only.

<sup>†</sup> Export of cashew kernels from April 1969 to February 1970 amounted to 54,200 tonnes valued at Rs. 51·18 crores against 59,800 tonnes valued at Rs. 57·34 crores during the same period in 1968-69.

From a long-term point of view it is significant that the present level of per capita consumption of cement in the country at 22 kg, is extremely low in comparison with the consumption in advanced countries. The figures of per capita consumption of cement (in kg.) in 1966 in various countries are: Switzerland 715; Austria 593; West

Germany 563; Sweden 481; Belgium 463; France 457; Italy 426; Canada 398; Netherland 378; Japan 365; USA 342; U.K. 305 and India 22.

Even in U.K. which has the lowest level of per capita consumption of cement among the advanced countries consumes as much as 305 kg. per head every year.

The installed capacity, production and despatches of 10 leading companies for the years 1967 and 1968 are given below:
('000 tonnes)

		1967			1968	
	Installed capacity	Production	Despatches	Installed capacity	Production	Despatches
1. A.C.C. Ltd	4,986	4,509	4,490	5,401	4,723	4,674
2. India Cements	880	902	888	863	877	888
3. Jaipur Udyog	818	828	837	819	801	789
4. Birla Jute Mfg	688	637	622	755	707	700
5. Shree Digvijay	657	560	557	840	540	545
6. Saurashtra Cement	533	367	365	533	427	427
7. Dalmia Cement (Bha-						
rat)	419	513	506	451	501	493
8. Orissa Cement	401	345	342	401	443	439
9. Kalyanpur Lime and		Verent Time	17 1 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	10 V (10 V (10 V )		
Cement	197	150	149	350	216	215
10. Rohtas	315	327	312	315	344	326

Cement output in India touched the 95·16 lakh-tonne mark during the nine months ended September in 1969 against 83·70 lakh tonnes recorded in the corresponding period of 1968. The output of 27 companies, which are members of the Cement Manufacturers' Association, increased following a rise in the rated capacity to 110·05 lakh tonnes against 97·56 lakh tonnes during the three quarters of 1968.

#### DIFFERENT TYPES OF CEMENT

- (1) Ordinary Portland Cement: Conforms to IS-269-1958 for ordinary portland cement.
- (2) Low Heat Portland Cement: Conforms to IS 269-1958 for low heat cement.
- (3) Rapid Hardening Portland Cement: This is specially useful for meeting the demands for speed in modern construction. It has the property of rapidly developing a high strength at any early stage, resulting in considerable reduction of construction period. Manufacturers of this type are A.C.C., Dalmia Cement (Bharat) and Orissa Cement Ltd.
- (4) White Cement: Widely used for tiles, terrazzo, artistic decorations and for extension and interior finishes in all types of buildings, this cement is as good as any portland cement and has the same toughness to withstand weathering and wearing. Being pure white this cement can be coloured to any desirable shade by mixing it with pigments. Manufacturers are A.C.C. (at Porbander and Kymore) and Travancore Cements at Kottayam.
- (5) Oilwell Cement: Oilwells are drilled to a depth of 1,000 to 5,000 metres or more. The ambient temperatures at such great depths are very high and ordinary cement grout (when used to cement the sides of the wells) will harden before it is pumped to those depths. Oilwell cement grout remains fluid for enough time under such conditions to allow placement. Once it is placed it develops full strength in a very short time and remains stable. The Shahabad factory of the ACC manufactures this type of cement.
- (6) Hydrophobic Cement: This type has an aversion for water and it can, therefore, be stored for comparatively

long periods under humid conditions. It can also be transported, even when it is raining, without being spoiled. The protective water repellent coating is destroyed by the abrasion of the sand and aggregates when the cement is mixed with these in the presence of water. This type is now manufactured by A.C.C. and Shree Digvijay Cement Co.

(7) Asbestos Cement: The controls on the distribution of asbestos cement sheet had been lifted with effect from June 1, 1966.

#### DECONTROL & PRICE

The control on cement industry was lifted from January 1, 1966. In the place of STC, a new organisation called "Cement Allocation and Co-ordinating Organisation" (CACO) was set up by the cement manufacturers with regional offices at Bombay, Calcutta, Delhi and Madras for the entire distribution of cement throughout the country as well as to meet the requirements of the Government and the public.

However, the Government by the Cement Control Order, 1967 have entrusted cement distribution to Cement Corporation of India Ltd. from January 1, 1968. The functions hitherto entrusted to the industry controlled CACO will be performed by CCI. The Government had announced that the production, sale, distribution and price of cement will be decontrolled with effect from January 1, 1970.\*

# CAPACITY AND AVAILABILITY

The position regarding capacity, availability, demand, surplus/deficit for 1969 to 1974 is given below:

(Million tonnes) Surplus (+) Capacity Availability Demand Year Deficit (-) + 1.19 12.58 1969 15.63 13.77+1.3213.7715.09 1970 18.38 +1.4615.10 19.08 16.56 1971 + 0.85 17.19 16.34 19.58 1972 +0.1917.99 17.80 20.83 1973 - 0.65 19.29 21.03 18.64 1974

<sup>\*</sup> At the time of going to press (April 1970) the decontrol had not been enforced. The matter was still under consideration.

The capacity and availability figures are given on the basis of new factories and extensions actually on hand or which are definitely going to be installed. As further new capacities are bound to be undertaken, the nominal deficit shown in 1974 will turn into a surplus. In fact, additional capacities totalling 2.8 million tonnes have been promised by various producers.

The activities of the Cement Corporation of India are limited for the present to the completion of the two projects already under way and it is decided to establish two more projects during the Fourth Plan period in regions where there are shortages.

# COFFEE INDUSTRY

COFFEE cultivation is mainly confined to the hilly tracts of south India, from one thousand feet to six thousand feet above the mean sea level, and is centred in the Malnad area of Mysore, Tamil Nadu and Kerala. In the lower elevations the better quality Arabica coffee has given place to the hardy but coarser Robusta coffee.

Coffee estates provide employment to nearly three lakh persons. There are over 47,000 registered coffee estates and about 5,000 unregistered estates. The area under coffee is about 1,30,000 hectares. The contribution to the national income from coffee is about Rs. 35 crores and in terms of foreign exchange earning it is about Rs. 18 crores.

There are only two types of coffee grown on commercial scale in India, the one most extensively cultivated being Coffee Arabica and the best in quality, with Robusta coming next in importance. About 21 species and subspecies of coffee are being grown in the Coffee Board's research stations. Many coffee estates are also interplanted with orange. Pepper trees are trained on shade trees and cardamom is grown in the valley slopes and ravines.

The area and production from 1964-65 of the two varieties of coffee are as under:

# AREA IN THOUSAND HECTARES

Year			Arabica	Robusta	Total
1964-65		1	78	52	130
1965-66	1000	1101	78	51	129
1966-67			78	50	128

## PRODUCTION IN M. TONNES

Year			Arabica	Robusta	Total
1964-65			42,304	18,597	60,901
1965-66	***	333	38,331	25,530	63,861
1966-67*		10.1	41,620	36,655	78,275
1967-68*			37,450	19,770	57,220
1968-69*		* *	49,400	23,450	72,850
1969-70*	10.00		44,000	26,000	70,000

<sup>\*</sup> Denotes latest revised estimates, subject to revision.

The final receipts of 1965-66, 1966-67 coffee crops and receipts upto 15-2-'68 in respect of 1967-68 crop (inclusive of gains-in-weight) are as under:

(In tonnes)

Season		Planta- tion	Ar. Cherry	Robusta	Total
1965-66 1966-67		24,925 27,475	13,155 14,079	23,365 36,460	63,445 78,014
1967-68	-35	25,358	11,900	19,655	56,913

The receipts of 1969-70 crop into the pool up to Feb. 28, 1970 amounted to 72,975 tonnes compared with 56,913 tonnes for the corresponding period of last year.

The following table gives the trend of exports:

	Y		Exports in Metric Tons*			
1965-66						28,843
1966-67		And the	1 144			35,074
1967-68		100			**	29,755†
1968-69					100	34,500@

. Out of the season's crop.

+ Released for export by the Indian Coffee Board.

@ Allocation.

Export Duty: The Central Govt. has levied an export duty of 50 paise per kg. or Rs. 50/- per quintal on all export coffee.

#### COFFEE PRICES

The prices of coffee realised in the export sales during the first six months of 1968 ranged from Rs. 292 to Rs. 303·50 per 50 kg. of Plantation A, Rs. 213 to 227 per 50 kg. for Arabica Cherry A B and Rs. 201 to Rs. 228 per 50 kg. for Robusta Cherry A B.

The annual average prices realised in the pool sales for each type of coffee from the year 1965 (in Rs. per 50 kg. inclusive of Central Excise Duty).

Y	Year		lantation 'A'	Arabica cherry Flats/ Arabica cherry AB	Robusta cherry Flate Robusta cherry AB	
A BOAY O	1181	130	Rs. P.	Rs. P.	Rs. P.	
1965		1 440	270 - 32	235-87	231-17	
1966			334-20	296-49	259-77	
1967			313.50	274-50	226.75	
1968		0 14 40	354.00	306.75	272-75	

Under the Development Plan launched by the Board for increased production of coffee, a sum of Rs. 259·00 lakhs has so far been advanced to growers for different purposes as noted below (Rs. lakhs): 1. Long-term loans for intensive cultivation of small holdings 71·21; 2. Short-term loans for working capital 40·25; 3. Loans for acquiring essential equipment and machinery 140·91; 4. Long-term loans for replanting areas of old, uneconomic coffee 6·63; Total 259·00.

AVERAGE INDEX NUMBERS OF WHOLESALE PRICES OF COFFEE (Base 1952-53: 100).

To be	Year									
1965							114-0			
1966			100	- 44	**		136-4			
1967				-			128.9			
1968			100		* *		144.6			

# COFFEE BOARD

The Coffee Board is a statutory organisation constituted under the Coffee Act (Act No. VII of 1942), and functions under the administrative control of the Government of India in the Ministry of Foreign Trade and Supply. The functions of the Board are as under:

- (1) the promotion of the sale and consumption in India and elsewhere of the coffee produced in India;
- the promotion of agricultural and technological research in the interest of the coffee industry;
- (3) assistance to coffee estates for their development;

- (4) the securing of better working conditions and the provision and improvement of amenities and incentives for workers; and
- (5) the working of the measures enumerated in the Act relating to the operations of the surplus pool.

The Coffee Board consists of the Chairman and 32 other members representing the interests of coffee growers, the State Governments of Mysore, Tamil Nadu and Kerala, labour curing establishments, the trade and such other interests as in the opinion of the Central Government ought to be represented on the Board. The Board was re-constituted as from 10th July 1968 for a period of three years.

# COIR INDUSTRY

COIR is the natural versatile golden fibre extracted from the husk, the outer covering of the coconut. 'Cocos Fibre' popularly known as Coir is classed among the Industrial Hard Fibres which enter the world market in the form of fibre, spun yarn, floor coverings, curled coir, rubberised coir products and rope.

India and Ceylon are the only two countries producing coir on a commercial scale. India accounts for about 56 per cent of the total production of the coir in the world. The coir industry is mainly confined to the coastal strip of Kerala. Annual production of coir fibre in the country is estimated at 1,60,000 tonnes.

Kerala accounts for 6·10 lakh hectares out of a total of 8·94 lakh hectares under coconut cultivation in India. The distribution of area under cultivation and production of coconuts for 1966-67 (latest available) is as follows:—

States		Area in '000 hectares	Production (million nuts)
Kerala		609.6	3,424.7
Mysore		106.1	446.0
Tamil Nadu		82.5	866-5
Andhra Pradesh		34.4	221.5
Goa, Daman & Diu		19.7	70.0
Maharashtra		9.3	32.5
Andaman & Nicoba	r		
Islands		8.7	38.5
Orissa		8.6	31.1
West Bengal		6.7	22.0
Assam		3.7	11.2
Laccadive, Minicov			
Amindivi Islands		2.7	16.3
Pondicherry		1.3	11.6
Tripura		0.2	0.3
All India		893.5	5,192.0

Source: Regional Office, Coconut Development, Ernakulam.

On an average, India exports 42,300 tonnes of coir yarn out of the total production of 1,40,000 tonnes annually. 47,500 tonnes of coir yarn are used for the production of coir manufactures (including coir rope) annually. Export of coir fibre as such is only to the extent of 1,100 tonnes.

India's production of coir products and coir rope are estimated at 25,000 tonnes and 20,000 tonnes respectively. About 70 per cent of the total production of coir products is exported to foreign countries. But only four per cent or

less of the total quantity of coir rope produced is exported and the rest is consumed internally. About 1,500 tonnes of machine extracted coir fibre are produced in India annually. On an average 500 tonnes of curled coir (a product of the machine extracted fibre) are marketed abroad.

In the spindle spinning sector, there are about 25,000 units engaged in the production of coir yarn.

There are at present about 2,200 industrial establishments registered with the Board under the Coir Industry (Registration and Licensing) Rules, 1958, engaged in the production of coir manufactures and rehanking of coir yarn. But only 163 units are registered under the Indian Factories Act in Kerala and the rest are mere cottage type establishments with one or two looms.

The industry provides employment for about 3 to 4 lakhs of people in the coastal strip where the density of population is very high. The Kerala Government have fixed minimum wages in respect of both the sectors of the industry where hired labour is required.

The yarn produced in the different villages is being marketed chiefly in Alleppey, Cochin and Kozhikode. The manufacture of coir products is concentrated in and around Alleppey and a considerable share of the yarn brought from the producing centres is used for the production of coir floor coverings.

The Coir Board is responsible for the formulation of suitable measures to promote the growth of the industry on stable and healthy lines.

The Coir Industry Act gives powers to the Union Government to levy a cess on export of coir and coir products. At present the cess levied on coir fibre and yarn is at the rate of 98 paise per quintal. Nearly Rs. 4½ lakhs are collected under this head.

Recently as per the recommendations of the Board, the Central Government have issued orders notifying coconut husks (raw and retted) as an essential commodity under the Essential Commodity Act of 1955. In exercise of the powers conferred under section 3 of the Essential Commodity Act 1955 (10 of 1955) the Central Government have issued orders for the Licensing of Coir Retting places. These rules provide powers to the Government for the control of the price of husks. The State Governments of Kerala and Tamil Nadu were authorised to implement the scheme.

A Central Coir Research Institute was set up in Kalavoor, Alleppey in Kerala to carry on fundamental as well as applied research. The Board also set up a National Coir Training and Design Centre to impart advanced and systematic training in the techniques of coir production. The Centre also conducts refresher classes to the executives of co-operative societies. This centre is also engaged in evolving novel designs. An extension service covering the various aspects of coir extraction, processing and manufacture especially spinning, dyeing and weaving has also started.

In order to compete with the products manufactured on powerlooms in West European countries, a policy decision has been taken to mechanise one third of the matting sector of the industry. Superior varieties of coir mattings in up-to-date designs and patterns to satisfy the sophisticated taste of the consuming public can be produced on powerlooms. A fully mechanised factory, set up by the Coir Board, has been commissioned for production. The total financial outlay is about Rs. 12 lakhs with a foreign exchange component of about Rs. 4·6 lakhs. Two other factories in the private sector have also already commenced commercial production.

Diversified uses for which coir can be put are many. Efforts at diversification of coir products have been going on for some time now. The results are machine extracted fibre and rubberised coir products.

Already 22 defibering units and eight rubberised coir producing units have been commissioned in various parts of the country. Rubberised coir is extensively used in the manufacture of mattress, pillows, moulded cushions, upholstery parts, etc. Rubberised coir mattress is particularly useful for use in hospitals.

A scheme of Quality Control and Pre-shipment Inspection was introduced to prevent the shipment of inferior goods which once did some damage to the reputation of Indian coir products.

To achieve some sort of stability in price index floor prices have been fixed for the popular varieties of coir mats exported.

On an average export of coir and coir products used to earn about Rs. 12 crores (before devaluation) of foreign exchange, every year. The export earnings during 1968-69 amounted to Rs. 14.50 crores. The figures of export of coir and coir products during the years 1966-67 to 1968-69 are given in the table at the end.

In order to expand the home market for coir and coir products, the Coir Board has opened show rooms and sales depots in important cities like Bombay, Calcutta, New Delhi, Madras, Bangalore and Ernakulam. The sales effected through these sales depots have increased year by year.

The Board has also appointed 22 accredited dealers in the cities/towns of Delhi, Madras, Bombay, Nagpur, Kanpur, Hyderabad, Trivandrum, Ernakulam (A), Ernakulam (B), Bangalore (A), Bangalore (B), Mangalore (A), Mangalore (B), Vijayawada, Gauhati, Hubli, Calicut, Trichur, Cannanore (A), Cannanore (B), Udipi and Daltaganj, who are given some financial assistance, say four per cent of the sales effected by them. Few more will be appointed soon.

The outlay in the Fourth Plan for the coir industry as proposed by the Board is Rs. 5.5 crores, comprising Rs. 1.5 crores for centrally sponsored schemes to be executed by the Board direct and Rs. 4 crores for States and Union Territories schemes.

The State scheme also envisages the organisation of the industry on a co-operative basis. About 640 co-operative societies are now in position in different coconut growing states in India. Out of these 550 are in Kerala. Six of the societies in Kerala are directly engaged in the export trade.

EXPORT OF COIR AND COIR GOODS FROM THE INDIAN PORTS †

(Year — April-March)

				(I car - II pr	to-mail city				
	131/10		1966-	-67	1967-	68	1968-69		
Commodi	ity		Qty.	Value (Rs.)	Qty.	Value (Rs.)	Qty.	Value (Rs.)	
Coir Fibre			11,026	18,11,876	12,193	20,16,515	10,080	17,87,226	
Coir Yarn			4,50,963	8,35,46,526	3,92,764	7,85,71,267	4,25,131	8,89,36,189	
Coir Mats			1,49,850	4,38,47,480	1,37,922	4,20,38,410	1,39,463	4,34,40,649	
Coir Mattings, Carpets, etc.	Rugs,		28,214	82,26,962	27,041	82,45,244	29,218	90,47,952	
Coir Rope			8,933	14,87,371	8,519	13,85,240	5,282	8,16,904	
Curled Coir		A. Ball		-	3,218	4,45,614	7,821	9,47,064	
Rubberised Coir products		A SAME		2	1,069	2	1,200		
Tota	1	7	6,48,986	13,89,20,215	5,81,659	13,27,03,359	6,16,997	14,49,77,184	

Source:—Daily/Weekly lists of Exports issued by the Customs authorities. (q): Quintals. April '69 to Feb. '70 amounted to 4,88,840 tonnes valued at Rs. 1,205.87 lakbs.

† Exprots of coir and coir goods during

# COTTAGE INDUSTRIES

# VILLAGE AND SMALL INDUSTRIES

A CCORDING to the working definition adopted by the Government, small-scale industries include all industrial units with a capital investment not exceeding Rs. 5 lakhs irrespective of the number of persons employed. Financial assistance to small industries is given

by the Government, State Financial Corporations and banking institutions including the State Bank of India. Recently, measures were taken to make this assistance more effective.

The data about employment are extremely meagre. It is, however, very roughly estimated that at least 24

million persons are gainfully employed in these industries classified as under:—

Na	me o	f Indu	stry			Persons employed in lakhs.
Textiles			1000	F C. E.		75
Leather					***	24
Wood	100					21
Metals	*/*					42
Pottery, Cerar	nics.	Tiles.	Bricks,	etc.		20
Vegetable Oils						10
Food including						20
Dress and Toi						11
Miscellaneous	inch			y and		
making			The state of the s			17
			Т	OTAL		240 (Estimated

# THE KHADI AND VILLAGE INDUSTRIES COMMISSION

The Khadi and Village Industries Commission's functions are to plan, organise and implement programmes for the development of khadi and village industries.

The Commission is a non-profit making body, depends upon the Government of India for its finance and its programmes form a part of the Five Year Plans and its annual demands form a part of the budget of the Government of India.

The Commission which has five members including the Chairman, Vice-Chairman and Member-Secretary, generally acts in consultation with the advisory Khadi and Village Industries Board. Members of the Commission: U.N. Dhebar (Chairman); K. Arunachalam (Vice-Chairman); Somdutt (Member-Secretary); Manmohan Chowdhary (Member).

The industries coming under the purview of the Commission are: (a) Textile Industry: khadi—cotton, woollen and silk; (b) Food Processing Industries: processing of cereals and pulses, ghani oil, manufacture of canegur and khandsari, palmgur making and other palm products; (c) Mainly Forest-based Industries: cottage match, cottage soap, manufacture of shellac, collection of forest plants and fruits for medicinal purposes, bamboo and cane work, manufacture of gum resins, manufacture of katha; (d) Other Industries: handmade paper, beekeeping, cottage pottery, cottage leather, fibre other than coir, manufacture and use of manure and methane gas from cow-dung and other waste products, lime manufacturing, blacksmithy, carpentry, fruit processing and fruit preservation, manufacture of household utensils in aluminium.

The programmes for the promotion and development of all these industries are implemented in all the States through the statutory State Khadi and Village Industries Boards. There are State Boards in almost all the States. In a few States the Commission has departmentally undertaken the development of khadi and village industries. The Commission provides financial assistance in the shape of grants and loans and gives technical guidance and training also.

#### Institutional Progress

By the end of 1968-69 there were about 1,000 registered institutions and 20,079 cooperative societies for khadi and village industries.

### Production

The production of khadi (including silk, woollen and cotton) was of the value of Rs. 24 · 29 crores in 1967-68

and of Rs.  $23 \cdot 38$  crores in 1968-69. The quantity of production was  $638 \cdot 85$  lakh sq. metres in 1967-68 and  $600 \cdot 19$  lakh sq. metres in 1968-69.

The value of production of village industries articles in 1968-69 was Rs. 81·35 crores as against Rs. 74·13 crores in 1967-68.

The following table shows the comparative details of production of khadi and village industries in 1967-68 and 1968-69.

(Rs. Crores)

Industry	1967-68	1968-69
Khadi	 24.29	23.38
Processing of Cereals and Pulses	 14.38	22.44
Village Oil	 19.73	17.91
Village Leather	 3.50	4.65
Cottage Match	 0.20	0.22
Gur and Khandsari	 21.80	21.50
Palm Gur	 7.05	6.89
Non-edible Oils and Soap	2.13	1.90
Handmade Paper	 0.50	0.54
Beekeeping	 0-74	1.05
Village Pottery	 1.78	2.09
Fibre	 1.10	0.88
Carpentry and Blacksmithy	 0.94	0.96
Lime	 0.17	0-17
Methane Gas	 0.11	0.15
Total	 74.13	81.35

#### Sales

Sales of different khadi and village industries products increased from Rs. 87·10 crores in 1967-68 (khadi Rs. 25·01 crores and village industries Rs. 62·09 crores) to Rs. 84·84 crores in 1968-69 (khadi Rs. 20·74 crores and village industries Rs. 64·10 crores).

The sales of khadi amounted to Rs. 20.74 crores during 1968-69 as against Rs. 25.01 crores in the previous year. The bulk of the sales was effected through bhandars and bhavans.

### Employment in Khadi

During 1968-69, the khadi programme provided employment to 11·10 lakh spinners (traditional, ambar, new model, wool and silk), 0·92 lakh weavers and 0·40 lakh others. The total number of persons employed in khadi was 13·35 lakhs.

#### Research

Grants have been made to promote research. The Commission's Central Research Institute for Village Industries at Wardha which is known as Jamnalal Bajaj Central Research Institute for Village Industries has been in the field for some time now. As a result of financial assistance by the Commission improved implements such as ambar belni, ambar charkha, dhunai modhia, improved ghanis and chakkis, all-metal neem seed decorticator-cumpulveriser, hand-operated poha-making machine and paddy sheller, hydraulic press for crushing edible oil seeds have been introduced opening out possibilities of raising the productivity and income of the persons employed.

#### Khadi Programme

The Commission disbursed Rs. 12.96 crores (Rs. 8.98 crores as grants and Rs. 3.98 crores as loans) for the development of khadi industry during 1968-69 as against Rs. 15.52 crores (Rs. 9.30 crores as grants and Rs. 6.22 crores as loans) in 1967-68.

# AMBAR CHARKHA PROGRAMME

The two schemes, traditional charkha and ambar charkha, have been in operation side by side. A new model all-metal six spindle charkha, designed by the Prayog Samiti of the Sarva Seva Sangh and manufactured by the Textool Company at Coimbatore is now in operation. The charkha which has now two models—Coimbatore and Rajkot—is capable of fetching a wage of Rs. 2 for eight hours' work. At the end of 1968-69, about 4,555 new model charkhas (Coimbatore model) were in operation in 189 centres throughout the country.

During the year 1968-69 production of ambar cloth and traditional khadi was 660·21 lakh sq. mtrs. and khadi produced from the yarn of new model charkha was 20·78 lakh sq. mtrs. The total production of cotton khadi thus amounted during 1968-69 to 660·21 lakh sq. mtrs. valued at Rs. 25·71 crores.

# HANDLOOMS

The handloom industry provides gainful employment to a large number of rural craftsmen and helps to preserve their traditional art.

Production: The aggregate production of cotton textiles increased from 7,299 million metres in 1963 to 7,719 million metres in 1964 and to 7,643 million metres in 1965. The production declined to 7,336 million metres in 1966. The estimated production of handloom and powerloom cloth works out to 3,179 million metres in 1967 and 3,530 million metres in 1968.

Handloom Co-operatives: There were 14·15 lakh looms in the Co-operative fold as on 31st March, 1968. This is nearly 50 per cent of the known size of the industry. Similarly the number of weavers' cooperative societies has increased from 9,870 in 1957-58 to over 12,163 with 12·79 lakh weaver members and 13·89 lakh looms at present. Under the scheme of Handloom Finance of the Reserve Bank of India the credit limits sanctioned have risen from Rs. 180·19 lakhs in 1957-58 to Rs. 589·65 lakhs in 1964-65.

The Reserve Bank of India continued to provide accommodation to State Co-operative Banks on behalf of Apex Weavers' Co-operative Societies under section 17(2)(a) or 4(c) of the R.B.I. Act at the bank rate for purchase and sale of varn.

Marketing: All India Handloom Board has taken several steps for aiding the marketing of handloom products. This aid has brought into being 1,822 sales depots, 53 inter-state sales depots, 61 central depots, and 46 mobile vans. Government have also provided a subsidy to mitigate to a certain extent the lag between the competitive capacity of the mill industry and the handloom industry. Publicity and propaganda measures like holding of fashion shows, participation in exhibitions, release of press advertisements, bringing out posters, brochures, pamphlets and folders etc., setting up kiosks at airports, erection of hoardings, issue of souvenirs on cloth etc., screening of cinema slides, documentaries and observance of the annual handloom week have helped to focus the attention on the industry and to create handloom mindedness.

Exports: India's handloom products have always had fame and pride wherever attractive textiles are prized. In recent years, in the face of growing competition from mills within and products of other countries like China, Japan etc., exports of handlooms have declined gradually.

The aggregate value of exports of handloom fabrics in each of the years 1962 to 1968 is: 1962 Rs. 10·14 crores; 1963 Rs. 14·28 crores; 1964 Rs. 13·18 crores; 1965

Rs. 15·26 crores; 1966 Rs. 11·24 crores; 1967 Rs. 12·23 crores; 1968 Rs. 13·16 crores.

The highest level of exports was reached in 1965 and this was mainly due to the phenomenal increase in the exports of handwoven fabrics known as "Bleeding Madras", which alone accounted for Rs. 6 crores. It is seen from a study of the destination-wise exports to some of the leading countries in the above years that the maximum exports are now to our traditional markets only viz., countries such as Singapore, Aden, Nigeria, Malaysia etc. While our exports to the U.S.A. have declined sharply, countries like Sweden and West Germany have started importing more of handloom fabrics, particularly silk.

The Handloom Export Promotion Council has been trying to locate the impediments which stand in the way of increasing the exports of handwoven fabrics and how best they could be solved.

### Technical Improvement and Research

Technical improvement is the basic requirement for the development of an industry. With a view to increasing the productivity of the handloom weavers, financial assistance is provided to weavers' co-operatives to replace out-moded tools by efficient ones, for the introduction of improved looms, jacquards, dobbies etc., as also for setting up dyehouses, finishing and calendering plants, pattern making factories etc. Under the above assistance, 547 dyehouses, 38 pattern making and 12 finishing plants were working during 1966. 29 co-operative spinning mills have started production of yarn of various counts.

The All India Handloom Board has set up Weavers' Service Centres at Bombay, Madras, Calcutta, Varanasi, Mangalagiri (A.P.), Indore, Bangalore and Kancheepuram. These Centres have been concerned with the gearing together of the channels of communication that carry the results of research to the production unit and so enable it to function with precision and vitality. This, it is attempting to accomplish through (a) Setting up of workshops and laboratories undertaking applied research in the field of dyes, designs and technical problems of yarn and structure; (b) By establishing a two way channel of communication between the Weavers' Service Centres and production units through (i) Short term training courses and (ii) by sending out technical personnel to weaving centres; (c) By helping to establish links between production units and the agencies concerned with the internal and external marketing.

These centres have well developed Artists' studios, dyes laboratories and libraries.

The two Indian Institutes of Handloom Technology at Salem and Varanasi continued to train candidates for the diploma courses in Higher Handloom Technology. The candidates who were successful in the diploma course have secured employment. The institutes continued the short term course for training of weavers in improved methods of production. They also rendered technical assistance in many directions to the handloom interests.

# VILLAGE OIL

India is the second largest producer of oilseeds in the world and leads all other countries in respect of acreage under oilseeds.

Mills and ghanis are the two sectors in the oil industry in the country.

There are over 8,201 oil mills in the country.

The Village Oil Industry i.e. ghanis brought under its fold provided employment to 0·22 lakh full-timers during the year 1968-69. Besides, 9,591 part-time workers and 1,705 casual workers also found employment in the industry. The total earnings of these workers during the year (1968-69) was Rs. 161·86 lakhs.

During 1968-69, the expenditure incurred by the Commission for the development of the industry amounted to Rs. 121·37 lakhs of which Rs. 8·89 lakhs constituted grants and Rs. 112·48 lakhs loans.

There were 4,943 agencies operating various schemes under the Commission's purview of which 4,379 were co-operative societies and 564 were registered institutions.

During 1968-69, the production of oil through the registered ghanis was 3.84 lakh quintals valued at Rs. 1,472 lakhs and 5.34 lakh quintals of oil cake valued at Rs. 318 lakhs. The sales of oil and oil cake amounted to 3.64 lakh quintals and 5.02 lakh quintals respectively. The respective values of oils and oil cake sold were Rs. 1,470 lakhs and Rs. 323 lakhs.

Under the training programme the Commission trained 62 telis in the States of Assam and Andhra Pradesh during 1968-69.

# PROCESSING OF CEREALS AND PULSES

The Rice Milling (Regulation) Act was passed in May 1958, which was amended during 1967-68.

The main features of the amended Act are: (i) provision for regulating the operation of hullers surreptitiously attached to oil engines, flour mills, agricultural pump sets, etc.; (ii) restriction on polish beyond 4 per cent; and (iii) restrictions on the starting of defunct rice mills and hullers.

In pursuance of the decisions taken at the meeting of Planning Commission and the Khadi and Village Industries Commission, the Union Food and Agriculture Ministry issued suitable instructions to the State Governments for relaxing price control in favour of handpounded rice. The Khadi and Village Industries Commission also took up with the various State Governments the question of ensuring adequate supply of levy paddy to the handpounding units of the Commission for milling as agents of Government. However, the problem of ensuring adequate supply of raw material continued to be acute in some of the rice growing states.

The disbursement during the year was Rs.  $117 \cdot 07$  lakhs of which Rs.  $11 \cdot 47$  lakhs were grants and Rs.  $105 \cdot 60$  lakhs were loans.

To enable the artisans obtain higher production of better rice, the Commission distributed during the year 7,594 atta chakkis, 2,300 paddy chakkis, 185 winnowing fans and 203 dhenkis.

Under the production programme, 11·79 lakh quintals of paddy valued at Rs. 863·79 lakhs were dehusked during 1968-69. The industry provided employment to 58,208 persons in 1968-69 out of whom 10,176 were full-time workers and rest part-time workers. They earned respectively Rs. 19·48 lakhs and Rs. 23·57 lakhs. During the year the Commission's Central Training Institute at Wanakbori (Gujarat) imported training to 61 persons and the regional vidyalayas to 112 persons.

### BEE-KEEPING INDUSTRY

With a view to organising and developing collection of honey on scientific lines the Commission distributes beehives on a subsidised basis, finances, rearing and distribution of bee-colonies, collection and marketing of honey, organises co-operative societies and trains apiarists, fieldmen, farmers and others in the art of bee-keeping.

Rs. 23·02 lakhs were disbursed in 1968-69 of which Rs. 16·36 lakhs formed grants, the remaining being loans.

During 1968-69, as many as 13,661 bee boxes and 647 honey extractors were distributed at subsidised rates. Under the programme 17·10 lakh kgs. of honey was collected in 1968-69 as against 14·68 lakh kgs. collected in 1967-68 and the whole of it was marketed. During the year 23 fieldmen were trained. The total number of villages covered by the end of March 1969 was 24,768.

### HAND-MADE PAPER INDUSTRY

The hand-made paper industry, as being developed by the Commission, aims at utilising easily available raw materials like fibre, old gunny bags, rags, straws, grasses, waste paper etc. The programme of development consists of assisting in the setting up of big, medium, small and school units.

During 1968-69 the Commission disbursed Rs. 13.54 lakhs for the development of hand-made paper industry. The financial disbursement to various types of units depends upon the capacity to produce paper. Upto the end of 1968-69 the Commission had allotted 11 big, 59 medium and 77 small units. In addition to this, 24 home units, 9 jail units and 7 units to individual artisans also had been allotted.

The production of paper rose from 2,609 metric tonnes valued at Rs.  $50 \cdot 21$  lakhs in 1967-68 to 2,787 metric tonnes valued at Rs.  $54 \cdot 02$  lakhs in 1968-69.

### NON-EDIBLE OILS AND SOAP

India possesses large quantities of a wide variety of nonedible oilseeds, e.g., neem, karanja, maroti, dupa, castor, undi, etc. The oils extracted from these seeds are highly valued as industrial oils.

During 1968-69 the Commission financed the programme to exploit the vegetable oilseeds to the tune of Rs.  $44 \cdot 69$  lakhs of which Rs.  $34 \cdot 56$  lakhs were loans and Rs.  $10 \cdot 13$  lakhs grants.

To intensify efforts in improving production of non-edible oils, Oil Producing Units have been organised. During 1968-69 about 130 seed collection units, 88 oil production units and 315 soap production units reported production. As many as 412 institutions were engaged in production activities during the year.

The production of non-edible oil during the year 1968-69 was 14·07 lakh kgs. valued at Rs. 31·10 lakhs. The value of soap produced in 1968-69 was Rs. 124·28 lakhs as against Rs. 136·98 lakhs in 1967-68. The industry provided employment to 481 full-time workers and 1,18,000 part-time workers in 1968-69.

# PALM-GUR

In India, there are four varieties of sugar-yielding Palms—Date, Palmyra, Coconut and Sago. While the total number of tappable palms in the country, mostly Date and Palmyra, is estimated at over five crores, only about 170 lakh palms are being tapped for the manufacture of palm-gur.

The significance of the Palm-Gur Industry in India lies in the manufacture of gur and sugar from the sweet juice of palms, popularly known as \*neera\*, in providing seasonal employment on a large scale, and in its effects on subsidiary occupation as in the manufacture of products from palm leaf.

The Commission has established a Central Researchcum-Training Centre at Dahanu (Maharashtra). Research in the preservation of *neera*, better processing methods and improved implements are being carried on.

For the development of the industry the Commission provided Rs. 40.85 lakhs during the year 1968-69.

There were 3,439 cooperative societies having a membership of  $4\cdot13$  lakhs operating under the industry in 1968-69 as against 3,303 cooperative societies with a membership of  $3\cdot67$  lakhs in 1967-68.

During 1968-69 the total number of persons trained was 3,433. The production of palmgur during the year was valued at Rs. 611-92 lakhs. In addition to palm-gur, palm sugar and other edible and non-edible articles from palm trees were also undertaken and the total value of these during 1968-69 was Rs. 76.68 lakhs.

# **GUR AND KHANDSARI**

With a view to improving the quality of Gur, production of Khandsari and the efficiency of the farmers, the Commission has schemes to introduce improved equipment like crushers, centrifugals, pans, furnaces etc. The Commission also undertakes to train honorary workers and farmers in better methods of production with the help of improved equipment. The programme aims also at the organisation of co-operative societies to take up production and marketing of Gur and Khandsari and stocking and supplying of improved implements.

At the end of 1968-69, there were 1,355 co-operative societies and registered institutions engaged in the industry. The Commission constructed during the year 4,135 new furnaces and repaired 4,607 old ones.

The production of gur and khandsari during the year was 20·24 lakh quintals and 0·19 lakh quintals respectively, the total value of production of both being Rs. 21·50 crores. The entire gur and khandsari produced was sold during the year. The industry provided employment to a total number of 90,594 persons in 1968-69 who earned Rs. 213·91 lakhs as wages.

# VILLAGE LEATHER INDUSTRY

The processing of hides and skins and the manufacture of leather goods are traditional village industries.

The object of the development programme of the Commission for the industry is the planned recovery and full utilisation of the various parts of dead animals so as to minimise waste and provide large-scale employment. There is a vast livestock population consisting of over 22.6 erores of cattle and 10 erores of sheep and goats.

The programme consists of the establishment of flaying centres, flaying platforms, village tanneries, glue manufacturing centres, bone crushing units, chrome tanning units, retanning of bag tanned sole leather units, foot-ware units and leather goods units. The Commission is the first organisation in the country to take up chrome tanning in the villages. Eight such units have already been set up and are working properly.

To assist the Commission there is an Advisory Committee consisting of representatives of this industry and trade.

During 1968-69, Rs.  $42\cdot29$  lakhs were disbursed for the development of the industry of which Rs.  $11\cdot57$  lakhs were grants and Rs.  $30\cdot72$  lakhs loans.

During the year 61 and 88 persons were trained in the Arts of tanning and carcass utilisation respectively. As

against the production of goods valued at Rs. 350·18 lakhs in 1967-68, the production in 1968-69 was valued at Rs. 465·40 lakhs. During 1968-69, as many as 12,992 full-timers and 13,247 part-timers were employed in this industry, who earned Rs. 101·27 lakhs as wages.

### COTTAGE MATCH INDUSTRY

The match industry in India is classified into A, B, C and D classes according to the size and production capacity of the manufacturing units.

The programme of the Commission consists in the promotion of the 'D' class, licensed to produce a maximum of 25 gross boxes per day and capable of employing about 40 persons each.

The development programme aims at the utilisation of the bamboo resources of the country for the manufacture of matches and the elimination of the use of match wood and timber.

The programme also provides for training, research and marketing schemes.

The Commission expended Rs. 7.84 lakes during 1968-69 of which Rs. 0.85 lakes were grants and the rest loans.

The production of cottage match-boxes rose from 2·44 lakh gross boxes in 1967-68 to 2·94 lakh gross boxes in 1968-69. During the year 9 persons were trained.

The Industry provided employment to 883 full-time workers and 2,527 part-time workers who earned a total wage of Rs.  $2\cdot66$  lakks during the year.

# VILLAGE POTTERY INDUSTRY

The development programme for the industry consists of schemes for the promotion of production of pottery goods of various types, marketing, research, central and regional training, organisation and promotion of cooperative societies, supply of improved equipment and improved furnaces.

The Commission's programme for the industry during the year comprised among other things technical research, reorganisation of production programme in some areas and introduction of earthen pipes for water channel for minor irrigation. The disbursements for the year 1968-69 were Rs. 36.64 lakhs of which Rs. 10.76 lakhs were grants and Rs. 25.88 lakhs loans.

The production activity for the pottery industry in 1968-69 registered a considerable rise, the value of goods produced being Rs. 208·64 lakhs as against Rs. 181·02 lakhs in 1967-68. Pottery articles worth Rs. 203·93 lakhs were sold during 1968-69. Under the training programme, 105 supervisors and 155 artisans were trained during the year. The industry provided employment to 40,027 persons during the year and the wage bill amounted to Rs. 94·29 lakhs.

# FIBRE INDUSTRY

With a view to utilizing various kinds of fibres like sisal, hemp, san-hemp, etc., which grow in abundance in villages, but remain mostly unprocessed, the Commission implements a development programme under which improved Charkhas are distributed, artisans are trained and model production centres are organised.

In 1968-69 Rs. 12·04 lakhs were disbursed. During the year 98 instructors and 1,519 artisans were trained. The production of fibre articles during 1967-68 and 1968-69 were Rs. 109·64 lakhs and Rs. 87·75 lakhs respectively. The industry provided employment to 18,332 persons. The total wages paid during 1968-69 were Rs. 46·50 lakhs.

### CARPENTRY AND BLACKSMITHY

For developing the village carpentry and blacksmithy industry, the Commission disbursed Rs. 28·50 lakhs during 1968-69 of which Rs. 2·60 lakhs were grants and the rest loans. The value of production and sale during 1968-69 amounted to Rs. 93·60 lakhs and Rs. 92·02 lakhs respectively. The industry provided employment to 2,519 full-time workers and 1,326 part-time workers during the year and the wage bill was Rs. 21·68 lakhs.

# MANUFACTURE AND USE OF MANURE AND METHANE GAS FROM COW-DUNG AND OTHER WASTE PRODUCTS

The total number of gas plants set up by the Commission during 1968-69 was 673, thus bringing the total number of gas plants at the end of 1968-69 to 2,373. There were 263 agencies which received funds for the development of the industry at the end of the year.

During 1968-69 the Commission disbursed Rs. 20·86 lakhs for building plants as against Rs. 9·58 lakhs in 1967-68. The production of methane gas increased from 27·68 lakh cubic metres valued at Rs. 6·95 lakhs in 1967-68 to 41·14 lakh cubic metres valued at Rs. 9·48 lakhs in 1968-69. Besides, about 29,678 tonnes of manure valued at Rs. 5·94 lakhs were also produced during 1968-69.

# LIME MANUFACTURING INDUSTRY

The construction of low cost kiln and improved kiln designed by the Commission on modern lines continued to receive attention during 1968-69.

As against a disbursement of Rs. 4.61 lakhs in 1967-68, the Commission disbursed Rs. 3.08 lakhs in 1968-69 in the form of grants and loans. The production of lime during the year amounted to Rs. 17.10 lakhs and the industry provided employment to 3,932 persons. The total wages during the year amounted to Rs. 8.52 lakhs.

# INTEGRATED DEVELOPMENT PROGRAMME

The programme aims at intensive development of khadi and village industries in the gramdan and bhoodan areas where some spade-work had already been done.

During 1968-69, the Commission approved 21 blocks, bringing the total number of blocks to 703. Of these 152 were Prakhand dan blocks, 314 gramdan blocks and the remaining were outside the areas covered by the bhoodan movement and were located in tribal and hill and border areas. By 1968-69, the programme covered 41,041 villages with a population of  $2 \cdot 21$  crores.

Employment was provided to  $3\cdot40$  lakh persons under khadi and  $0\cdot64$  lakh persons under village industries, the total wages distributed to them being Rs. 244 lakhs and Rs.  $55\cdot89$  lakhs respectively.

# PROGRAMME FOR HILL AND BORDER AREAS

The Commission had by the end of 1968-69 spread a network of 85 centres in the border areas of almost all the

border States. Distribution and/or sale of implements and tools under khadi and village industries during 1968-69 were to the tune of Rs. 1·13 lakhs and Rs. 1·16 lakhs respectively.

# WEAVING SUBSIDY SCHEME

The Khadi and Village Industries Commission introduced weaving subsidy scheme from 6th April 1964 under which the rebate on the sale price of khadi has been replaced by a system of providing facilities for free weaving of all handspun yarn.

The new scheme benefits the spinners who get khadi at the cost of cotton while the urban consumers continue to get khadi at the rate which existed under the previous scheme; the only difference is that the amount available as rebate on the old sale price would under the new scheme be deducted from the price at an earlier stage in the form of weaving subsidy.

# KHADI AND VILLAGE INDUSTRIES IN FOURTH PLAN

The Khadi and Village Industries Commission has three main objectives in the Fourth Five Year Plan, viz., the social objective of providing employment, the economic objective of producing a saleable article, and the wider objective of creating self-reliance amongst the people and building up a strong rural community spirit. The production of khadi of all varieties during the Fourth Five Year Plan is estimated at 760·22 million sq. metres valued at Rs. 233·46 crores. Employment will be provided under khadi at the end of the Plan in 1973·74 to 24·99 lakh persons (20·94 lakh traditional and ambar charkhas, and 4·05 lakh new model charkhas). The production target for village industries during the Plan is put at Rs. 472·16 crores. The total number of people who will be either fully or partly employed under village industries by 1973-74 is estimated at 16·38 lakhs.

# **Technical Improvements**

New equipment, tools and processes have been developed and many others are in the process of experimentation. It is proposed to take advantage of all the available modern scientific knowledge and experience in improving progressively the productivity and income of artisans.

The new model charkha, the sevagram semi-automatic looms, etc. for example, would still enhance productivity, raise the level of income and make cloth more durable. Average production per new model charkha at present ranges from 15 to 20 hanks for 8 hours work which ensures a wage of Rs. 1·50 to Rs. 2·00 a day.

# OTHER INDUSTRIES

Industries such as collection of forest plants for medicinal purposes, manufacture of shellac, manufacture of gums and resins, manufacture of katha, fruit processing and preservation, etc. are new additions to the list of industries under the purview of the Commission. Financial assistance was given to them during the year for initiating the work.

# HANDICRAFTS

Handicrafts occupy the sixth place in the country's exports.

The All-India Handicrafts Board studies the problems confronting the handicrafts industry and advises the government on the solution of these problems. The Board is also required to advise the government on grants and loans to be given to the state governments, private organisations and institutions for financing activities necessary for the development and improvement of handicrafts. It plans and formulates schemes for the development of handicrafts. The State governments are mainly responsible for the implementation of plans and schemes whereas the Board undertakes such developmental measures as are of national importance and of value to the over-all programme for development of handicrafts and common benefit to the States, e.g., organisation of and participation in exhibitions and fairs of national importance, mobile exhibition covering several States, nation-wide publicity campaign, technological research and improvement, quality control, economic research and studies, design development on regional basis and specialised training. It also promotes the development of co-operatives and arranges credit.

The Planning Commission had allocated Rs. 59·297 lakhs for 1969-70.

Schemes to be undertaken during the next five years include market research, promotion of inter-state marketing, laying down standards and specifications, extension of training facilities in the management of emporia, salesmanship and display, introduction of improved techniques with particular emphasis on reducing cost of production and opening of organised production centres.

Besides co-ordinated schemes for the expansion of exports in handicrafts, the Fourth Five Year Plan envisages orientation in production to meet the needs of customers in different income groups within the country and the promotion and development of rural crafts.

The exports of handicrafts during the years 1964-65, 1965-66, 1966-67, 1967-68 and 1968-69 have been (in Rs. crores) 25.36, 27.79, 40.41, 54.76 and 76.47 respectively.

In order to strengthen and co-ordinate the measures taken for promotion of handicrafts, the Board has set up Regional Exporters Associations at Delhi, Bombay, Madras and Calcutta and Craft Associations for Zari and Carpets.

A list of the major handicrafts is given below :-

Textiles: Hand-printing and traditional dyeing of textiles, brocades, himroo, carpets and druggets, rugs, gabbas and namdas, embroidery (cotton, silk, wool and zari), lace and lace work including nakki and gota making, shawls; Metalware: Silver and goldware, bidri filigree, brass and copperware, bronze work; Ceramics: Pottery and earthenware; Ivory: Ivory carving; Woodwork: Wood-carving and inlay, lacquer work including nirmal work, decorative furniture; Stone-work: Stone-carving including marble work and alabaster; Toys: Dolls and toys other than mechanical toys; Leather: Leather goods (Artistic work); Horn: Artistic articles; Bone: Artistic articles; Cane and Bamboo, etc. Articles made of cane, bamboo, willow, straw and grass including mats and pith crafts; Incense and perfumery; Flax and Fibre

articles; Bangles & Beads; Musical Instruments; Conchshell and semi-precious stones.

Miscellaneous: Miscellaneous traditional art objects such as Orissa, Mysore and Tanjore paintings, and handicraft products specially made for ceremonies, articles of worship and theatrical requisites such as costumes, masks, puppets, etc.

Steps taken to develop handicrafts include the establishment of design centres to revive traditional designs and create new ones and training centres to better techniques. Some of these training centres are also production centres.

Mobile exhibitions are taken round the country and Handicraft Weeks are held. A handicrafts museum has been established in New Delhi.

### Design Centres

The Board has four regional Design Development Centres at Delhi, Calcutta, Bangalore and Bombay to look after designing and development of the crafts in their region, survey requirements, provide training and maintain close collaboration with the State centres, marketing organisations, exporters etc. State design centres were established and are situated in Kashmir, U.P., Bihar, W. Bengal, Himachal Pradesh, Bhopal, Tamil Nadu, Hyderabad, Orissa, Manipur, Tripura, Rajasthan, Punjab and Kerala.

During the III Five Year Plan over 5,000 original designs were evolved covering 16 crafts and nearly 500 parties were assisted.

# Development of Co-operatives

The Board encourages formation of handicraft cooperatives and provides financial, technical and marketing facilities to them.

The number of handicraft co-operatives increased from 1,000 in 1957-58 to nearly 3,000 in 1967-68. In addition 200 handicrafts emporia have also been set up to expand marketing activities.

The Board has also started a training programme for the co-operative organisers for which trainees from Government Departments and co-operative organisations are selected for training. Up to April 1968 ten such courses had been held and 184 persons trained.

Survey of associations of artisans, dealers and exporters has been completed by the Indian Co-operative Union on behalf of the Board.

### Credit Facilities

One of the main functions of the Board is to see that adequate credit facilities are made available to the handicrafts industries and trade at different stages of its production, storage, distribution and sales.

Awards: To bestow honour and encourage craftsmen, the Board has instituted National awards for Mastercraftsmen. These awards are given every year during the "Republic Week" celebrations.

Handicrafts and Handlooms Export Corporation of India Ltd. (See under "All India Corporations.")

# FILM INDUSTRY

NESCO has sponsored a study of Indian film heroes and the Institute of Social Sciences, Agra, has undertaken in co-operation with a group of International scientists, the study for which \$20,000 have been sanctioned in the first instance.

## FILM INSTITUTE OF INDIA

Law College Road, Poona 4.

The Institute trains all categories of film technicians and artistes. It conducts diploma courses in Film Direction, Screenplay Writing, Motion Picture Photography, Sound Recording and Sound Engineering, Film Editing and Film

At the commencement of the ninth academic year (1969-70), the Institute had 150 students in various courses. So far 281 students have obtained diplomas. Out of these diploma holders, many are occupying responsible positions in the industry and in government organisations like Films Division and TV Centre of All India Radio.

The Institute has extensive ground for out-door shooting; a processing laboratory - both for 35 mm and 16 mm work and well-equipped studios. Whenever not required for the use of the Institute, these facilities are made available to outside producers on hire and this helps maintain close contacts with the film industry. There are 20 foreign students on the Institute's rolls. Countries represented are Afghanistan, Ceylon, Ghana, Jordan, Nepal, Philippines, Singapore, Tanzania, Somalia and Indonesia.

There are separate hostels for boys and girls.

Film Library: The Institute has a film library in which film classics are being collected from various countries. So far, 128 films have been obtained from USSR, USA, UK, France, Germany, Italy, Czechoslovakia etc. The library also has some selected Indian features and documentaries. The Institute's Book Library has 9,600 books valued at Rs. 58,000.

National Film Archive of India @: The National Film Archive of India is at present in the premises of the Film Institute, Poona. The present collection (as on 31-12-69) consist of 492 feature and short films (Indian & Foreign), 3886 stills, 1359 wall posters, 804 disc records, 2549 books and 156 journals. Notable among the acquisitions of the year are three Indian silent films of Himansu Rai: "LIGHT OF ASIA" (1926); "THROW OF DICE" (1927); "SHIRAZ" (1928)—received from the National Film Archive, London under the archival exchange programme.

Children's Film Society: Its object is to produce, acquire, distribute and exhibit films of special interest to child and juvenile audience. The Society's Registered Office is at New Delhi and Administrative Head-quarters at Bombay. Various State Governments and Union Territories are affiliate-members of the Society.

The Government of India provide the major portion of funds in the shape of annual grant-in-aid. Society's own revenue from commercial screening and sale of prints, etc. was Rs. 4 49 lakhs during the year ending March 31, 1969.

The Society organised 3,459 film shows during 1968-69 in schools, cinemas, etc. -- an increase of 133 per cent over the figures for the year 1963-64. These film shows were witnessed by over 14 lakh children and adults. In addition, film shows are also arranged by the Central and State Governments through their Publicity Vans in rural areas. On an average 40 to 50 lakh persons witness these shows.

The Society has so far produced over 65 films and have won 11 National and International Awards and recognitions for its films.

Chairman: Smt. Nandini Satpathy, Deputy Minister attached to the Prime Minister; Secretary: H. C. Srivastava; Public Relations Officer: R. P. Agnihotri.

## **FILMS DIVISION**

The Films Division is the central film producing organisation of the Government of India under the Ministry of Information and Broadcasting and is responsible for production and distribution of newsreels, documentaries and other films for general information and education of the people. Its output is about 150 films a year. Most of these films are made in English and thirteen Indian languages. The Division supplies about 35,000 prints of its films annually for commercial and non-commercial distribution. Nearly 30 to 40 million people see its documentaries and newsreels each week.

**Documentaries:** During the period April to December 1968 the Division produced 54 films (121 reels), purchased four films (8 reels) and accepted as donation 11 films (16 reels). Out of the 54 films, 12 films (21 reels)one colour film (2 reels) and eleven black and white films (19 reels) were produced through private producers. Eight colour films and 34 black and white films were produced by the Division's units. Of these 69 films, 9 films were on family planning, 6 films on scientific farming, three on emergency and the remaining on a variety of subjects like developmental projects, savings, tourist publicity, external publicity, instructional training and teaching films and compilation films on visits of dignitaries. Between January and March 1969, the Division produced 40 films (213 reels). Out of 40 films, 13 films (23 reels) — 4 colour films (8 reels) and 9 black and white (15 reels) were produced through private producers. Two colour films (3 reels) and 25 black and white films (187 reels) were produced by the Division's

Newsreels: The production of newsreels continued according to the schedule of one reel a week in 14 languages viz., English, Hindi, Bengali, Tamil, Telugu, Marathi, Gujarati, Kannada, Malayalam, Assamese, Punjabi, Oriya, Urdu and Kashmiri. Stories were received from 24 foreign newsreel organisations as part of the arrangements for free exchange of newsreel material.

A Hindi print of the weekly newsreel and interesting sports items were supplied for use in the TV programme of All India Radio in New Delhi.

Newsreel coverage within the country is organised through 13 Newsreel Officers and two Assistant Newsreel Officers stationed in Delhi (4), Bombay (2), Calcutta (2), Madras (1), Ahmedabad (1), Hyderabad (1), Lucknow (1), Bangalore (1), Bhopal (1) and Chandigarh (1).

Production by Films Division 1965-66 to 1968-69

Year		Docume	entaries	News-	Overseas	m. 4 - 1	
rear		B&W	Colour	reels	Edition	Total	
1965-66	2/5	113*	22	60\$	60†	201	
1966-67		76	12	56†		146	
1967-68	-	73	12	57†	ST 925 1	142	
1968-69		79	15	56İ		150	

\* Including 43 for New York World Fair. \$\frac{1}{2} Including 4 special. † Including 5 special newsreels. \$ Including 8 specials.

<sup>@</sup> The main objectives the Archive are 1) acquisition and preservation of national and international cinema, 2) film classification, documentation and research and 3) encouraging film study and spread of film culture.

# Field Publicity

Nearly 20,300 prints were supplied to the field units of the Directorate of Field Publicity, State Governments, Films Division branches, Railway Zone, Department of Community Development, Ministry of Education, the Exhibition Division of the Directorate of Advertising and Visual Publicity, Development Commissioners, Social Education Organisers and Training Centres for exhibition through mobile vans.

### Non-Commercial Exhibition

From April to March 1969, some 8,000 prints were sold to schools, Government departments and private bodies. These include prints supplied to the Ministry of External Affairs for exhibition through Indian Missions/Posts abroad. During April to March 1969, 5,551 shows were given by organisations to which prints were loaned and about 14 lakh persons attended the shows.

Against a Budget Grant of Rs. 1,51,97,000 a total expenditure of Rs. 1,51,58,000 was booked up to the end of March 1969 by the Films Division.

#### **AWARDS**

(See article 'Awards and Prizes')

Film Festivals: The Division participated in 35 international film festivals by entering 76 documentary films and received 25 diplomas and certificates of participation. Five documentary films of the Films Division won National Awards for films for 1967.

### CENTRAL BOARD OF FILM CENSORS

The Board of Film Censors is a statutory body set up under the Cinematograph Act, 1952, for sanctioning films for public exhibition. Films suitable for unrestricted exhibition are granted 'U' certificates and those suitable for public exhibition restricted to adults only are given 'A' certificates.

The certificates issued by the Board are valid for 10 years from the date of issue. Provision exists for the issue of fresh certificates in respect of such films after the expiry of the 10-year period.

During 1969, the Central Board of Film Censors examined 2,888 films. The Board granted 1,546 LU and nine 'A' certificates to Indian films and 1,934 'U' and 123 'A' certificates in respect of imported films. Certification was refused in 26 cases (3 Indian and 23 imported). The total footage excised from the films was 5,757.62 meters. 1,200 films were classified by the Board as predominantly educational.

In the case of 458 films, certificates were revalidated after the expiry of the ten-year period. Of these, 15 received 'A' certificates. Revalidation of certificate was not refused in the case of any feature film.

#### 16 MM. FILMS

The use of the 16 mm. film for propaganda and publicity is realised by Governments, municipalities, and trade and industry.

The National Institute of Audio-Visual Education now renamed as the Department of Audio-Visual Education (National Council of Educational Research and Training), Indraprastha Estate, New Delhi, has been doing excellent work with 16 mm. films on a variety of topics. Its Library is the single largest collection of 16 mm. films, mainly for information and education. The films are loaned to member institutions free of charge. Films are sent to outstation members by registered post at the expense of the department.

There are in addition 16 mm. projectors and small theatres for films suitable for non-theatrical audiences maintained by the British Information Services, the British Council and the U.S. Information Services through their regional offices.

Most of the diplomatic missions and embassies in the Capital and Consulates in Bombay, Madras and Calcutta maintain a film section and arrange shows of special films.

The U.K. and U.S.A. representatives and the British Council maintain a special library of educational and informative films. These are available for exhibition free of charge.

16 mm, films on a variety of subjects are available from many countries in the world.

### EXPORT, IMPORT

India is the second largest film producing country in the world. She produces annually between 300 to 320 films in 12 Indian languages. Production of colour pictures is on the increase. Export demand is mainly for Hindi and Tamil films. Indian films are exported to nearly 100 countries in the world. The total export earnings from Indian feature films including advertisement shorts according to the figures published by the D.G.C.I. & S., Calcutta during 1968-69 was Rs. 2·94 crores. The export earnings during 1969-70 (April to November) stood at Rs. 2·57 crores.

Marketing conditions abroad: The trading conditions that prevailed during the financial year 1968-69 and during the first 6 months of 1969-70 in some of the main traditional markets were as follows:—Demand from the U.K., Iran, West Indies, Singapore, Malaysia, Thailand and Fiji was steady. Enquiries from the Middle East, Persian Gulf and North Africa were somewhat limited. Exports to Burma were limited to the purchases made by the Motion Picture Agency Burma from the IMPEC. Exports to Ceylon were hampered by the import restrictions. The unsettled conditions in Nigeria affected our exports to the West African markets. While there was an improvement in the enquiries from Indonesia, despatches were limited to the orders against which the overseas buyers could open letters of credit in free foreign exchange. In general, overseas buyers showed greater interest in colour films.

Some of the importing countries like Kenya, Tanzania, Ghana, Iraq, Syria, Ceylon, Burma and Indonesia have imposed restrictions on the import of Indian films. These countries among themselves account for nearly 38 per cent of our total exports.

# **PRODUCTION**

Films produced by India during the last seven years in black and white and colour respectively were: 1961: 289, 8; 1962: 307, 5; 1963: 287, 12; 1964: 269, 24; 1965: 290, 32; 1966: 276, 32; 1967: 285, 45.

Indian feature films certified by the Central Board of Film Censors during the period 1-1-1969 to 30-9-1969: Black and white 227; colour 43; total 270.

Language-wise break-up of Indian feature films certified during Jan. 1, 1969 to Sept. 30, 1969: Hindi 57; Hindustani 9; Hindi with English sub-titles 2; Urdu 2; Marathi 14; Gujarati 5; Punjabi 3; Konkani 1; Kashmiri 1; Documentary 1; Rajasthani 1; Bengali 22; Oriya 1; Tamil 53; Telugu 45; Kannada 32; Malayalam 21; Total 270.

T.

### IMPORT OF FILMS (Cinematographic)

										Films in ro tized, une		Exposed films (whether developed or not)		
										Length ('000 metres)	Value (Rs. in lakhs)	Length ('000 metres)	Value (Rs. in lakhs)	
1965-66	1.0									86,314	397	2,359	35	
1966-67					100				7	45,454	222	8,149	78	
1967-68	52.			1	***	C Tiles				66,265	382	4,675	53	
1968-69			3 191					 		43,204	305	4,722	70	
1969-70	100	The same of		2.0		3000	Mar San			27,756	249	824	14	
(up to Au	ig. '69)													

Note: Value is at post-devaluation rate.

# IMPORT OF EQUIPMENT

(Rs. in lakhs) (Post-devaluation rate)

Description	1965-66	1966-67	1967-68	1968-69	1969-70*
Cinematographic projectors	10	10	5	7	3
reproducers (excl. those operating solely by a magnetic process)	3	2	1	2	1

<sup>\*</sup> Figures are up to August, 1969.

### **EXHIBITION ABROAD**

Copies of documentaries are in demand for regular exhibition in 84 Indian Missions abroad, Many television authorities show considerable interest in Indian films and the documentaries are frequently used by them through the Tourist Officers/Indian Missions in their respective countries

Catalogue of the Films Division's documentaries is available with the Missions abroad.

# GLASS INDUSTRY

INDIA manufactures almost all varieties of optical glass. Barring the sphere of decorative table-ware like hand-cut crystal, fine goblets, chandeliers and plate glass, her progress in the industry has been phenomenal.

The more commonly used raw materials for glass industry are: sand, borax, soda ash and salt cake, dolo-

mite, lime or limestone, saltpetre and sulphur, manganese dioxide and colouring materials.

The industry comprises the manufacture of sheet glass, blown and pressedware and bangles.

The production of different types of glass and glassware from 1962 onwards is given below:

		Shee	t Glass	Laborat	ory Glass	Glass	Shells	Other Glassware		
Year		Installed Capacity '000 Sq. Metres	Production '000 Sq. Metres	Installed Capacity Metric Tonnes	Production Metric Tonnes	Installed Capacity Lakh Pieces	Production Lakh Pieces	Installed Capacity Metric Tonnes	Production Metric Tonnes	
		1	2	3	4	5	6	7	8	
1962		13,464	8,748	11,904	3,948	682 · 8	681.6	3,35,928	1,86,336	
1963		13,440	9,840	12,420	4,512	682 · 8	744.0	3.56,268	1,90,032	
1964		18,840	9,360	12,552	3,672	722.4	711.6	3,75,096	1,96,680	
1965		18,840	8,136	15,084	5,460	722 · 4	770.4	3,95,976	2,16,936	
1966	0	21,432	11,024	15,096	7.248	744.0	799-2	3,75,984	2,11,704	
1967		18,840	14,304	13,824	8.112	1.144.8	920.4	3,75,984	2,12,357	
1968		20,220	15,684	10,296	7,068	1,324.8	972.0	2,32,812	1,23,096	

The know-how for the production of optical glass, a strategic defence material, was developed at the Central Glass & Ceramic Research Institute, Calcutta, and a plant of 10 tonne annual capacity was set up at the Institute in 1961 to meet the requirements of defence and

civilian instrument industry in respect of all major types of optical glass.

A public sector ophthalmic glass plant having a capacity of 300 tonnes per annum was set up by the Government of India at Durgapur, West Bengal, with Soviet assistance. The factory started production of spectacle glass blanks in 1969.

Imports	and ex	cports a	are as follows:	(Rs. lakhs)
	100		Imports	Exports
1962			136.94	24.05
1962-63		100	148.58	24.11
1963-64			158.35	33.33
1964-65			122.96	63.74
1965-66			125.16	35.04
1966-67			108.18	40.41
1967-68			163.00	62.00
1968-69			148.65	121.16

Exports are mainly of bangles, the chief markets being Ceylon and countries in Africa, Middle and Far East.

A new Company — Glass Lined Equipment Co. Ltd. has been established at Umreth near Anand for manufacturing glass enamelled equipment such as reactors, evaporators, storage vessels, valves, pipes and fittings required in the chemical, pharmaceutical and petrochemical industries.

The per capita consumption of glass is very low. The annual consumption is only one lb. which is about one-hundredth of the consumption in U.S.A.

# HIDES, SKINS AND LEATHER

THE tanning industry in India is a traditional industry engaged in tanning vegetable tanned hides and skins mostly for export purposes. A large proportion of the vegetable tanning industry is concentrated in the States of Tamil Nadu, Andhra and Mysore. Nearly 90 per cent of vegetable tanned goat and 70 per cent of tanned hides are exported.

The tanneries in Madras specialise in the manufacture of light leathers like wet blue goat skins, handgrain morocco, clothing leather, etc. Calcutta units concentrate on chrome tanned hides, chrome uppers and wet blue hides and skins.

Leather is widely used for belting industrial gloves and aprons, diaphragms, oil seals, oil filters, washers etc.

Requirements of raw hides, the principal raw material in the manufacture of pickers and picking hands are met mostly from imports.

During 1968-69, the availability of cow hides was estimated at  $19 \cdot 25$  million tonnes and that of buffalo at  $6 \cdot 3$  million tonnes. This is expected to increase to  $20 \cdot 51$ 

million tonnes and 6.85 million tonnes respectively by 1973-74. During this period, the estimated production of raw goat skin and sheep skin is expected to increase from 44.60 million tonnes and 16.52 million tonnes respectively to 49.20 million tonnes and 16.81 million tonnes respectively.

The tanning industry comprises four sections, viz., 1. organised tanneries producing finished vegetable tanned buffalo leather and chrome tanned upper leather; 2. tanneries producing vegetable tanned leather known to the trade as E. I. kips and E. I. tanned skins; 3. small-scale chrome tanneries producing chrome tanned upper leather; and 4. village tanneries producing vegetable tanned cow and buffalo leather and vegetable tanned leather from goat and sheep skins.

There are 77 large-scale factories manufacturing tanneries with a production capital of Rs. 7·3 crores. Nearly 10,000 people are employed in these 77 units.

The annual installed capacity and production of each of these items is as follows:

				Chrome Ta	nned Hides		anned Buffalo w Hides	Leather Cloth	
Year		-	Capacity (Thou	Production isands)	Capacity (Thou	Production usands)	Capacity Production (Thousand metres)		
1964 1965	::		••	1,580·4 1,580·4	915·8 868·6 909·6	4,678·8 4,678·8 4,816·3	3,344·4 3,433·8 3,310·1	8,262·0 9,551·0 12,255·6	8,990·4 9,133·2 11,898·2
1966 1967 1968				1,580·4 1,580·4 1,580·4	898·0 820·0	4,828·8 4,828·8	$3,178 \cdot 0$ $2,550 \cdot 0$	12,555 • 6	10,789.5

According to the Annual Survey of Industries, 1963, the total productive capital on tanneries and leather finishing plants was about Rs. 4.3 crores and total employment came to 8,290. The gross ex-factory value of output was Rs. 16.9 crores.

The trend of the value of exports and imports since 1965-66 is given below

					EXPORT		(Figures in crores)		
•	Year	East India tanned hides and skins		Pickled Tanned goat skins reptile skins		Raw goat and kid skins	Goat hair	Tanning materials	
Eva Men			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1965-66 1966-67 1967-68	••	 ••	25·34 41·28 34·77	2·37 0·94 0·63	0·92 1·90 3·59	6·03 13·27 6·14 3·83	0·59 0·88 0·58 0·71	$0.55 \\ 0.36 \\ 0.34 \\ 0.26$	
968-69		 	49.53	0.55	$2 \cdot 75$	3.09			

Note: Figures do not include export of wet-blue chrome tanned goat and sheep skins, finished leather manufactures.

Tanning Materials — Excluding Cutch Extract.

	Year		Raw hides and calf skins	Raw goat and sheep skins	Wattle bark	Wattle extract	Other tanning materials	Leather tanning and curing machinery
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1965-66		 	1.41	0.76	0.19	1.24	0.21	0.14
1966-67		 	1.29	0.22	0.31	2.43	0.82	0.16
1967-68		 	1.06	0.10	0.17	1.63	0.55	0.29
1968-69		 	1.60	0.04	0.28	2.85	0.58	0.15

The export of East India tanned hides and skins reached a record in 1968-69. The exports of these items during the year amounted to Rs. 5,379.56 lakhs against Rs. 3,992.28 lakhs during 1967-68 an increase of about 40 per cent.

The exports of finished leather and leather manufactures in 1968-69 was Rs. 33 crores, Rs. 8 crores more than the target. The positive forecast for 1969-70 is Rs. 40 crores.

India imports about 15,000 tons of Wattle extract and bark per year. By the end of the Second Plan the total area under wattle cultivation had reached about 27,000 acres. During the Third Plan period more area had been extended under wattle plantations in the States of Tamil Nadu, Kerala and Assam.

The mechanised sector claims about 25 per cent of our exports. Major part of it goes to Western Countries. 75 per cent of the exports came from the decentralised sector and the largest chunk of it goes to currency trade area.

A beginning has been made by the Co-operative Mutual Insurance Company, Bombay, to insure milch animals and drought cattle in the States of Maharashtra and Gujarat. A Development Council for Leather, Leather Goods and Pickers industries was constituted in January 1960. A new public sector enterprise — Tannery and Footwear Corporation of India — is to be formed during the Fourth Plan.

### FOOTWEAR INDUSTRY

According to the Annual Survey of Industries, 1966, there were 11 registered factories manufacturing footwear. The productive capital of these units was about Rs. 3·00 crores in 1966 and the gross output was Rs. 7·3 crores.

The capacity for the Indian type of footwear which is hand-made fluctuates with demand and data are not available for Statewise figures.

Reliable production statistics for small and cottage units which are responsible for manufacturing over 90 per cent of the total output are not available.

Import of leather footwear is insignificant.

Export of Leather Footwear: Quantity in million pairs and value in Rs. lakhs respectively during the following year:  $1964-65:4\cdot02;348;1965-66:4\cdot69;431;1966-67:5\cdot29;670;1967-68:--;752.$ 

The Government of India has re-imposed the 10 per cent excise duty on footwear parts costing more than Rs. 8. The 10 per cent duty is, as before, liable only on the produce of the so called organised sector of the industry.

In a seminar on leather inductry held in August 1969, it has been decided to establish 150 modern mechanised units all over the country for the manufacture of footwear and leather goods in the small-scale sector.

# JUTE INDUSTRY

THE jute industry retains its place as India's largest foreign exchange earner, but its share in the total exports from the country has declined over the years. It was about 16 per cent in 1968 against 23 per cent in 1965.

The 1968-69 exports at 636,600 tonnes were the lowest recorded for years. Exports of sacking, the major markets for which used to be Africa, South East Asia and Australia, have declined steadily from 461,400 tonnes in 1954-55 to a meagre 70,800 tonnes in 1968-69. In 1968-69, 292,400 tonnes of hessian were exported from India. The output and exports of carpet backing went up from 11,300 tonnes and 13,600 tonnes respectively in 1958-59 to 206,500 tonnes and 219,200 tonnes in 1968-69.

The Government of India has reduced the export duty on jute carpet-backing cloth by Rs. 300 per tonne with effect from December 1969. Simultaneously the jute industry also reduced the price of such cloth by Rs. 300

per tonne. As a result jute carpet-backing cloth is available to the overseas buyers at Rs. 4,233 per tonne, Rs. 600 per tonne cheaper.

The country has achieved self-sufficiency in jute production. However, vagaries of nature and other factors have caused variations in crop outturn from year to year. 1964-65, 1965-66 and 1966-67 were poor crop seasons and stocks had to be replenished by imports from Pakistan and Thailand. The severest shortage in fibre supply in the current decade occurred in 1968-69. It led to curtailment of goods' production and because fibre and consequently goods' prices rose to very high levels, exports of jute products suffered.

Modernisation and Diversification: The jute industry spent Rs. 50 crores on modernisation in the 'fifties. It has again drawn up a Rs. 50-crore programme of modernisation for implementation during the Fourth Plan period. Investment of large sums started from 1968

for the installation of broadlooms for the manufacture of carpet backing. The complement of broadlooms increased from 3,400 at the end of 1967-68 to 5,600 at the end of 1968-69. The industry has carried on research for the improvement of existing products and development of new lines over a number of years. Carpet backing accounted for 22·2 per cent of the industry's total production in 1968-69 and 34·4 per cent of its exports. Other improved and new products developed in recent years are a lightweight woolpack, dyed and bleached cloth for the decorative market, laminated goods, etc.

The jute industry has today 71 units in operation with the heaviest concentration of looms in the world — about 41,000 looms distributed at the beginning of 1969 as follows: 11,900 sacking, 23,000 hessian, 4,800 carpet backing and 1,300 others.

The industry still accounts for 35 per cent of world output and 55 per cent of world exports of jute goods. It employs over 220,000 workers. A capital of Rs. 160

crores is invested in the industry.

The table below gives the production and exports of jute goods during the past few years:

### PRODUCTION AND EXPORTS OF JUTE GOODS

					Production	('000 tons)	Exports ('000 tons)	April-March Value		
Year (July-June)				Hessian	Sacking	cking Others		(all-India) April-March	(Rs. in crores)	
1964-65	Salva		100	518	566	216	1,300	935	168-35	
1965-66				481	539	187	1.207	882	182 • 85	
1966-67				436	499	199	1,134	724	249 • 62	
		**		443	450	229	1,122	740	234.09	
1967-68 1968-69		11.		312	327	278	917	639	217.35	

Area and production of raw jute in the Indian Union:

Year Average				Lakh acres	'000 bales (1 bale = 400 lbs.)
1964-65				20.72	5,973
1965-66		1.0		18-69	4,436
1966-67	3.3	3.3		19.72	5,306
1967-68				21.87	6,319
1968-69		100	L.	13.07	3,028

N. B .- The jute season is from July to June.

The all-India yield per acre in bales was: 1964-65:  $2\cdot56$ ; 1965-66:  $2\cdot37$ ; 1966-67:  $2\cdot69$ ; 1967-68:  $2\cdot89$ ; 1968-69:  $2\cdot31$ . Production of jute and mesta in lakh bales: 1964-65:  $75\cdot44$ ; 1965-66:  $56\cdot70$ ; 1966-67:  $64\cdot27$ ; 1967-68:  $75\cdot30$ .

Supply and distribution of jute and mesta during the seasons 1967-68 and 1968-69 are as follows:

(Talk holos)

				(Lakh bales)	
		11.37	1967-68	1968-69	
Supply	-				
Opening stocks	with	mills			
(godown) J.B.S.A.º		W	12.50	} 15.00	
			12.50		
Other Stockists			6.00	5.00	
Total			18.50	20.00	
Crop: Total		72.55	76.00	43.00	
Import:				6.00	
Total Supply	9.		94.50	69.00	

			(Lakh bales
The case of the state of the st		1967-68	1968-69
Distribution	12/19		
Mill consumption		72.50	58.50
Exports	200	1.00	0.50
Domestic consumption		2.00	2.00
Total distribution	100	75.50	61.00

The following table gives the trend of I.J.M.A. mill consumption of raw jute:—

Year end	led Ju	1.00	L	akh bales		
1964-65	1.	2.401				75.85
1965-66	175					70.36
1966-67						65.94
1967-68	***	 		11.4		65.20
1968-69		 		11.0		53 • 27

INDEX NUMBER OF WHOLESALE PRICES OF RAW JUTE & JUTE MANUFACTURES

(Base: 1952-53 = 100)

			Jute (Raw)			Manu- ures
			1968	1969	1968	1969
January			215	342.5	127	177.0
February			220	343 · 4	131	179.7
March		10 may	214	347.2	130	178 · 4
April		9	232		132	
May		12.	242		137	
June			244		141	
July		1	249		151	
August		1	280		162	
September			290		163	
October		8/	313		171	
November		0.00	335		179	
December	•		345		180	

Source: Index Numbers of Wholesale Prices issued by the office of the Economic Adviser (Published in "Jute Situation" issued by the Economic & Statistical Adviser to the Govt. of India, Ministry of Food, Agri, C.D. & Cooperation, New Delhi).

# LAC INDUSTRY

AC is a resin which finds extensive application in industries. It is a resinous protective secretion of an insect which lives by sucking the sap of certain trees and shrubs called lac hosts.

There are four crops of sticklac, named after the Hindu months in which the collection of each crop commences. These are 'Baisakhi' and 'Katki' from one strain of the insect (Rangeeni) and 'Jethwi' and 'Aghani' from another strain (Kusumi). The first processed product, after the crushing and washing of sticklac is known as 'seedlac'. From this shellac is manufactured either by melting it (seedlac) manually in cloth bags held near a fire place called 'bhattas' or by the mechanised process of extraction with suitable solvents.

Lac is used in the manufacture of french polish, gramophone records, electrical insulating materials, shellacmoulded articles, micanite, hats, grinding wheels, adhesives, cements, wood turning, metal enamelling, printing ink, etc.

# **PRODUCTION**

Lac is grown mainly in Bihar, West Bengal, Madhya Pradesh, Maharashtra and Uttar Pradesh. Till recently India produced approximately 85 per cent of the world production. But in recent years Thailand has also increased its production and now, on an average, India's share is between 50 and 60 per cent of world production. The Statewise break-up of average production in India during the years 1964-69 is as follows:

Stat	Average Crop (in quintals)			
Bihar			Sept.	1,55,783
Madhya Pradesh	4000		0.00	60,121
West Bengal				27,684
Maharashtra				5,934
Uttar Pradesh	12.000			19,333
Orissa				6,830
Gujarat		 	VAV	783
Other States				1,903
Total				2,78,371

The total production in 1968-69 was 2,95,980 quintals and in 1967-68 it was 3,87,791 quintals. The preliminary report issued by the Regional Office, Lac Development, Ranchi, puts the total yield of Baisakhi lac crop in 1969 at 1,54,896 quintals, and of Jethwi lac at 13,062 quintals.

# **EXPORTS**

Between 85 and 90 per cent of the lac produced in India is exported. The U.S.A., till recently, bought the largest quantity of Indian lac. But of late, the U.S.S.R. has emerged as the largest buyer.

The table below gives exports of lac to important countries during 1967-68 and 1968-69.

(The figures are in quintals)

			1967-68	1968-69
SHELLAC AND	Вит	CONLAC	Ranga Mayora	
U.K			17,046	16,948
U.S.A			15,273	17,860
U.S.S.R.			13,832	19,960
W. Germany	3.00 B		 2,661	3,689

		1967-68	1968-69
Brazil		12,044	5,826
Australia		4,322	3,889
France		3,883	4,600
Other countries	**	42,672	51,744
Total quantity	i e e e	1,11,733	1,24,516
Total value in rupees		4,07,24,728	4,13,31,237
SHELLAC			
U.S.A		12,369	12,127
West Germany		17,261	22,301
U.K		5,262	5,489
Other countries		3,715	2,542
Total quantity		38,607	42,459
Total value in rupees		1,04,21,880	79,70,864
OTHER KINDS OF LAC			
Total quantity		3,570	10,149
Total value in rupees		3,58,552	9,94,374
Total of all kinds of lac:	Thu-		HADERS"
Quantity		1,53,909	1,77,124
Value in rupees		5,15,05,160	5,02,96,475

# ORGANISATIONS CONNECTED WITH LAC DEVELOPMENT AND INDUSTRIES

For looking after the development and marketing of lac and also for guiding and coordinating lac development work in the States, a Regional Office, Lac Development, has been created under the Department of Agriculture of Government of India with headquarters at Ranchi with effect from 1st April 1966. The Government of India have also constituted the Indian Lac Development Council on which various interests connected with lac are represented. The primary function of the Council is to advise the Government on all matters relating to development of lac cultivation, trade and industry.

There is also a Shellac Export Promotion Council with headquarters at Calcutta whose function is to promote the export of lac to foreign countries. On account of its dependence on foreign countries, the internal prices of lac very often fell to very low levels which reduced the foreign exchange earnings and acted as a disincentive to the producer. In order to guard against this, a body of exporters of lac called the Indian Lac Exporters Association has been formed with Government support. The major functions of the Association are to assist the Government in the fixation of minimum prices of all grades of lac at the export stage, maintenance of quality at export stage and administration of the Minimum Export price.

The Bihar Cooperative Lac Marketing Federation has been formed in Bihar with the object of giving a price support to the cultivator at the time when the market price falls below certain levels. Similar organisations in other States are in the offing.

To improve upon the technique of lac cultivation and to find out new uses of lac are the responsibilities of the Indian Lac Research Institute at Namkum. This Institute is under the control of the Indian Council of Agricultural Research.

# NON-FERROUS INDUSTRY

(See also under "Mines and Minerals".)

### COPPER

THOUGH there are many copper fields in India, extraction of copper ores is at present confined to only three mines viz., Musabani, Surda and Patharghora in Bihar, which are operated by Messrs. Indian Copper Corporation Ltd. More and more deposits of copper are being located and important among such are: Khetri and Daribo in Rajasthan and Rangpo area in Sikkim. Hindusthan Copper Ltd., a public sector undertaking, is at present engaged in the development of Khetri and Kolihan to produce 31,000 tonnes of electrolytic grade copper metal per annum. It is also proposed to recover sulphur values in the ore by adopting flash smelting process to produce about 600 tonnes of sulphuric acid per day which would be utilised to produce 214,400 tonnes of triple superphosphate fertiliser per annum. The project including the acid and fertiliser plant is estimated to cost Rs. 88 crores.

Though the world average grade of copper ore milled is about 1.5 per cent. Khetri will have one per cent grade with a production of 31,000 tonnes electrolytic copper per year.

Annual plan for 1969-70 has provided Rs.  $17\cdot 0$  crores for the plan expenditure against Rs.  $6\cdot 1$  crores (estimated) in 1968-69.

### ZINC

Deposits of zinc are known to occur at only Zawar and Dareba-Rajpura areas in Rajasthan. The lead-zinc deposits in these two areas are estimated at 96 90 million tonnes. At present two units of Hindusthan Zinc Ltd. in the public sector and Cominco Binani Zinc Ltd. in the private sector are engaged in the manufacture of zinc.

Hindusthan Zinc Ltd. is formed to develop the full potential of Zawar Mines. The Zinc smelter plant of this unit went into regular production from January 1968. The rated capacity of the plants in MT per year is as follows: Zinc 18,000; Superphosphate 76,200; Cadmium 78.

Production of zinc in 1967-68 amounted to 4,802 tonnes. This smelter is reported to be experiencing acute shortage of raw material viz. zinc concentrates to feed the plant.

The draft Fourth Plan has provided an expenditure of Rs. 742 lakhs for development of Mochia mines to produce 2,000 tonnes of ore per day needed to feed the Debari zinc smelter. A further provision of Rs. 1,652 lakhs has been made for prospecting and exploration works at Zawar Mines, doubling the capacity of Debari Zinc smelter from 18,000 tonnes to 36,000 tonnes.

Another zinc smelter at Alwaye (Kerala) in the private sector based on imported concentrates and having an installed capacity of 20,000 tonnes, started production in January 1967. The smelter was expected to attain its rated production by the end of 1969. It is also expected to double its capacity at the end of the Fourth Plan.

Most of the sulphide ores bearing zine contain appreciable amounts of cadmium, and the major portion of world's cadmium comes as a by-product of zine industry. It is reported that zine blende received from zawar mines contains about 0.30 to 0.35 per cent cadmium.

The projected demand and supply schedules of zine during the Fourth Plan are given below:

	1969-70	1970-71	1971-72	1973-74 (tonnes)
Demand Production Capacity	96,800	106,500	117,100	142,000 70,000 76,000

The Union Government decided to exempt zinc concentrates from import duty of 15 per cent.

It has now been decided to establish a zinc smelter plant at Vizag. The plant will have an annual capacity of 30,000 tonnes of zinc, 40,000 tonnes of sulphuric acid, and 70,100 tonnes of cadmium and will be based on imported concentrates.

# ALUMINIUM

Aluminium is the only non-ferrous metal which India can produce in large quantities because of extensive deposits of bauxite. At present, considerable attention has been paid for augmenting the production due to the high priority accorded by the Government of India for import substitution.

At present there are four primary producers in the private sector viz., Hindusthan Aluminium Corporation Ltd., Ind. Aluminium Co. Ltd., Madras Aluminium Co. Ltd. and Aluminium Corporation of India Ltd.

Looking to the heavy demand for Aluminium in the country, the three units have plans for further expansion. Hind. Aluminium Corporation of India has obtained an industrial licence from the Government of India permitting expansion from 60,000 to 120,000 tonnes of aluminium ingot per annum. This unit has already entered into the first stage of expansion of production capacity from 60,000 to 80,000 tonnes per annum.

The demand for aluminium in India has recorded a steep increase in line with the trend all over the world. The output during the Plan periods and the anticipated production at the end of Fourth Plan period are given below:

Year			(	000 tonnes
1960-61 (Production)				18-2
1965-66 (Production)	S	Mark m		67
1968-69 (Production)				117
Capacity	5 St. 2. ( )	XXIVI SAS	100/34	120
Production	**		197	120
1973-74				230
Capacity	17.00	1000		220
Production	V/1 - 17-16-0	Series and		220

By the end of the Fourth Plan, it is hoped that India will be fully self-sufficient in aluminium.

Bharat Aluminium Company Ltd., a public sector undertaking incorporated in November 1965, was entrusted with the main object of constructing, managing and operating the Koyna (Maharashtra) and Korba (M.P.) projects.

Koyna Project: The plant is based on the Udgeri and Dhangarwadi (both in the Kolhapur region) bauxite deposits and electric power from Koyna Hydel station.

Korba Project: This project envisages a two lakh tonne (per annum) alumina plant, a one lakh tonne (per annum) smelter and facilities for manufacture of semis.

#### TIN

At present there is no indigenous production in the primary metal. So India has to depend on imports.

#### LEAD

Lead ores are known to occur at a number of places in India. The only large deposits now being worked are those at Zawar. The Hindusthan Zinc Ltd. has established a lead smelter plant at Tundo in Bihar. Production of lead amounted to 2,335 tonnes in 1967-68 against 2,514 tonnes in 1966-67.

### **ANTIMONY**

For antimony there is only one smelter at Bombay, owned by Star Metal Refinery Pvt. Ltd., based on imported ores with capacity of 1,000 tons.

### FOURTH PLAN

By the end of the Fourth Plan, it is expected that India will be fully sufficient in Aluminium and meet half its requirements of zinc and one-third of copper from indigenous resources. The outlay on metals in Rs. crores is fixed as follows in the central sector: Continuing Schemes 682·47; New Schemes 3,04·00; Total 986·47.

The share of copper, aluminium and zinc in the total outlay of continuing schemes is given below (Figures in Rs. lakhs): 1. Khetri Copper Project 58,00; 2. Korba Al. Project and 3. Koyna Aluminium Project 100,00; 4. Gujarat Alumina Plant (Central Share) 1,00; 5. Doubling the capacity of zinc smelter Delani 5,00; 6. Hind Zinc Ltd. (development of mine for production of 2,000 tonnes ore per day) 742; 7. Hind. Copper Ltd. 20,00; 8. Hind. Zinc Ltd. (1 Prospecting and lead-zinc deposits of zawar mines; 2. Development of new mine in the zawar area) 11,52.

# **EXPORTS**

			777		(Rs. lakhs)
				1967-68	1968-69
A.	Aluminium Proc	lucts		SAME SE	Share Charles
1.	Al. Utensils			67.23	70.89
2.	A1. Capsules			10.96	2.04
3.	Al. foils			24.48	19.52
4.	A1. Furniture				0.38
5.	Al. ingots			32.59	678.44
3.	Al. Ladders				0.27
7.	Al. sheets and c	ircles	Till and	9.70	38.65
3.	Al. structurals			2.45	4.15
9.	Others			4.21	7.78
T	otal			151.63	822 · 10

	1967-68	1968-69
B. Brass Products	No. The	L. Mary T. D.
1. Brass Utensils	60.03	37.99
2. Brass sheets, circles, rods		
rollers, shifts	The same of the sa	48.34
3. Others	1.20	3.21
Total	75.63	89.54
C. Copper Products	100000	ALCOHOLD TO
1. Copper Utensils	1.78	3.16
2. Copper sheets, circles,		
stups and tubes	3.01	15.00
3. Others	0.12	0.05
Total	4.91	18.21
D. Lead Products	1.82	1.96
E. Silver Products	7.86	0.78
F. Zinc Stripes, ingots and		
plates	4.39	2.42
G. Others		
I. Collapsible tubes	5.41	8.81
2. E.P.N.S. ware	35.01	68 · 12
3. Printing types	1.82	1.96
Grand Total	287 · 16	1,012-20

Source: Engineering Export Promotion Council

Total export of non-ferrous products during the first five months of 1969-70 amounted to Rs. 3·07 crores against Rs. 2·75 crores in 1967-68; target for the aluminium products during 1969-70 has been placed at Rs. 7·75 crores.

Installed capacity of Aluminium Mfg. units

		tonnes	per annum
	Smelter location	Present	Additiona capacity
P	ivate Sector	Search consti	
1.	Ind. Aluminium Co. Ltd.		
A.	Alwaye (Kerala)	15,850	0.00
В.	Hirakud (Orissa)	20,000	
C.	Belgaum (Mysore)*		30,000
2.	Hind Aluminium Corpn. Ltd. Renukoot (U.P.)	60,000	20,000
3.	Madras Alu. Co. Ltd. Mettur (Madras)	12,500	12,500
4.	Alu. Corpn. of India Ltd. Asansol (West Bengal)	8,700	3,800
Pu	blic Sector		
1.	Koyna (Maharashtra)		50,000
2.	Korba (Madhya Pradesh)	<b>)</b> —	100,000
		117,050	216,300

<sup>\*</sup> Commissioned on October 22, 1969.

# IMPORT OF NON-FERROUS METALS

Q = quantity in lakh kgs. V = value in Rs. lakhs

	1966	-67	1967	-68	1968	8-69
	Q	V	Q	V	Q	V
A. Copper $(1+2)$	345.79	3,907 • 6	389 · 35	3,546.0	430.23	3,916 · 5
Copper and alloys						
1. Refined or Unwrought	 201 · 14	2,212.5	229.64	1,921 · 7	343.66	3,020 . 03
2. Copper and alloys worked	 144.65	1,695 · 1	159.71	1,624 · 3	86.57	896 · 5
3. $Lead (3 + 4)$	 500.88	1,042 · 8	350.04	620.9	337.99	638 • 6
3. Lead and alloys unwrought	 497.60	1,035 · 7	347.51	608.0	324 · 63	631 · 8
4. Lead and alloys worked	 3.28	7.1	2.53	12.9	13.36	6.8
$Z_{inc} (5+6) \dots \dots \dots$	 480.69	1,096.8	659.08	1,429.5	898.56	1,989 · 4
5. Zinc and alloys unwrought	 460.82	1,047.9	642 · 10	1,389 · 1	883.06	1,947.5
6. Zinc and alloys worked	 19.87	48.9	16.98	40.4	15.50	41.8
O. $Tin(7+8)$	 29.47	692.8	38.45	952.0	48.71	1,154.7
7. Tin and alloys unwrought	 28.87	689-2	38.19	947.8	48.48	1,150.5
8. Tin and alloys worked	 0.58	3.6	0.26	4.2	0.23	4.2
E. Nickel (9 + 10)	 9.60	144.4	19.94	350.0	24.93	574.0
9. Nickel and alloys unwrought	 3.85	56.5	7.40	132 · 2	9.44	198 · 2
0. Nickel and alloys worked	 5.75	87.9	12.54	217.8	15.49	375.8
S. Aluminium $(11+12)$	 328 · 62	1,521.0	388 · 11	1,766 · 6	98.10	350.8
1. Aluminium and alloys unwrought	 98.00	358 · 3	254.77	1,062.5	79.09	97.1
2. Aluminium and alloys worked	 230.62	1,135.7	133 · 34	704 · 1	18.41	153 · 6

Produ	iction :				ALTERNATION OF				(metric tons
						1965	1966	1967	1968
I.	Copper		The last		7			THE RESERVE OF THE PARTY.	- ST (ST (ST )
	Virgin Metal		7	-		9,360	9,362	8,904	9,486
	Pipes and Tubes		7		24. 7	560.4	453.6	624 · 0	294.3
	Sheets and circles		•••			1,452	540	1,020	1,779
II.	Lead	100	Glavie	II PA					
	Virgin Metal		200		A	3,192	2,479	2,473	1,650
	Pipes and tubes		10 15 16	7		466.8	246.0	206 · 4	170.1
	Sheets					396	672	1,020	652
III.	Aluminium	Halm	Lugan)		14 有意力			THE PERSON NAMED IN	
	Virgin Metal					61,584	65,304	96,430	1,10,135
	Sheets and circles		4		95	24,533	30,502	32,089	35,018
	Foil	70 ES.		181.00		2,880	3,564	4,572	3,955
	Wire rods for ACSI		re linte	and the	SI ST.	20,472	29,292	34,716	46,507
	Rods and Sections				ops w	6,756	6,756	6,756	6,661
IV.	Zinc Metal				- N.H.			4,364	26,832

# **EXPLORATION OF NEW MINES**

Agnigundala Pradesh): The Geological Survey of India has found promising copper/lead deposits at Agnigundala in District Guntur of Andhra Pradesh. Though the reserves have been indicated to the extent of nearly 18·27 million tonnes of copper ore they have to be exploited for long run economic considerations. The development of the Agnigundala lead/copper belt was assigned to Hindustan Copper Ltd. in October, 1966. The Government has also approved in principle the development of these deposits.

The company has prepared a preliminary feasibility study on the upper level development of Bandalamottu lead/copper prospects in this area. The scheme provides for 6,500 metres of core drilling from the surface to delineate the shape of the ore body for lead and copper and an exploratory mining scheme expected to develop 1·12 million tonnes of lead ore containing 6·5 per cent. of lead

for the production of 500 tonnes of lead concentrate per day. The Agnigundala ore contained  $1\cdot 5$  per cent copper and  $6\cdot 5$  per cent of lead. The scheme with smelter is estimated to cost Rs.  $5\cdot 68$  crores and without smelter Rs.  $4\cdot 89$  crores. Exploitation is expected to commence from 1971.

Rakha Copper Project (District Singhbhum-Bihar): The Hindustan Copper Ltd. has prepared a scheme for the exploitation of Rakha Copper Deposits in District Singhbhum, Bihar at an estimated cost of Rs. 7·41 crores. The total ore reserves have been estimated at 13·9 million tonnes averaging 1·5 per cent. copper. It is proposed to develop a mine to produce 1,000 tonnes of ore per day to start with. 3,500 tonnes of copper metal will be produced per annum. The scheme is under consideration.

Dariba: Copper Deposits (Rajasthan): A scheme for carrying out further exploration in the area is now under consideration. In the meantime surveying, de-watering etc. are being done.

# RUBBER INDUSTRY

INDIA produced 71,054 metric tonnes of raw rubber during 1968-69 as against 64,468 metric tonnes in 1967-68.

During the five-month period, April to August 1969, 30,012 tonnes of natural rubber, 8,893 tonnes of synthetic rubber and 5,550 (estimate) tonnes of reclaimed rubber were produced in India. Production of synthetic rubber declined considerably due to the strike of workers in the synthetic factory.

The consumption of all kinds of rubber during the period in India was 54,490 tonnes against 51,369 tonnes during the same period last year.

A total of 10,943 tonnes of rubber was imported during the period against 1,407 tonnes during the same period last year.

Of an area of about 1,87,514 hectares under rubber cultivation at the end of 1968-69, 1,74,734 hectares are located in the State of Kerala. Other rubber growing areas are the districts of Kanyakumari, Coimbatore, Salem, Nilgiris, Tirunelvely and Madurai in Tamil Nadu and Coorg, South Canara and Chickmagalur in Mysore State, and Andamans, Tripura, Maharashtra and Goa.

The total number of rubber estates registered upto the end of 1968-69 was 1,00,090.

The following are other details :-

Year	Planted area in hectares	Tappable Area (worked out on the basis of year of planting) in hectares	Production (Metric Tonnes)	Average yield per hectare in kgs.
1964-65	155,324	108,500	45.616	420
1965-66	164,713	112,700	50,530	448
1966-67	171,260	113,500	54,818	483
1967-68	181,592	117,700	64,468	548
1968-69	187,514	122,200	71,054	581

# STATEWISE DISTRIBUTION OF THE PLANTED AREA AT THE END OF 1968–69

(Area in hectares)

	Hol	dings	Estates			
STATES	No. of units	Area	No. of units	Area		
Kerala	91,760	118,621	584	56,113		
Tamil Nadu	1,585	3,589	41	5,859		
Mysore	100	324	12	2,778		
Andamans			3	388		
Tripura	1	8	Nil	Nil		
Maĥarashtra	1	16	Nil	Nil		
Goa	3	18	Nil	Nil		

Areas upto and including 20 hectares are classified as Small Holdings — (small growers).

Areas above 20 hectares are classified as Estates — (large growers).

With effect from October 20, 1967, the Government of India fixed for all classes of business minimum prices, exclusive of sales tax, for the various grades and qualities of rubber and latex of different concentrations, excluding the cost of container. However, on November 16, 1968, Government lifted the maximum ceiling prices.

The quantities actually consumed during the last few years in metric tonnes were:

1964-65:	76,342	(natural	61.057:	synthetic	15 285) -
1965-66:	85,318	(natural	63,765 :	synthetic	21.553)
1966-67:	92,277	(natural	68,685 :	synthetic	23 592)
1967-68:	97,842	(natural	74.518:	synthetic	23 324)
1968-69:	113,853	(natural	86,615 :	synthetic	27.238)

Imports of rubber in metric tonnes were: 1964-65:18,318 (natural 15,003; synthetic 3,315); 1965-66:19,092 (natural 16,357; synthetic 2,735); 1966-67: 29,150 (natural 23,544; synthetic 5,606); 1967-68: 12,678 (natural 9,551; synthetic 3,127); 1968-69: 11,457 (natural 8,548; synthetic 2,909).

The production of natural rubber at the end of the Third Plan was 50,530 tonnes as against target of 45,000 tonnes. The estimate for 1969-70 is placed at 81,000 tonnes. In 1968-69 the percentage consumption of synthetic rubber to total consumption of natural and synthetic rubber was 24.

The total value of rubber plantation in the country is estimated at over Rs. 104 crores. The rubber plantation industry offered direct employment to about 135,000 workers in 1967-68 and means of livelihood for over 6·7 lakh people according to a modest estimate.

### SYNTHETIC AND NATURAL RUBBER

Synthetic rubber (polymer) or man-made rubber is the chemical combination of two or more molecules (monomer) resulting in the formation of a new compound (a large molecule polymer) of the same empirical formula but of greater molecular weight. Natural rubber consists mainly of a polymer of isoprene.

Different varieties of synthetic rubber are: Styrene Butadiene Rubber (SBR), Butyl Rubber, Neoprene, Cispolyisoprene, Cispolybutadiene, Polysulphide Rubber and Nitrite Rubber.

The production of natural rubber by the end of 1967-68 has reached 64,468 tonnes. In case of synthetic rubber, 1,20,000 tonnes capacity would be established by 1970-71.

The major producers of natural rubber are Malaysia, Indonesia, Thailand, and Ceylon.

The following table shows the trend of total area under rubber cultivation, production and average yield during the last four years in our country.

Year		Total area (hectares)	Production (Tonnes)	Average yield (kg. per hectare)	
1964-65		155,324	45,616	420	
1965-66		164,713	50,530	448	
1966-67		171,260	54,818	482	
1967-68	1	181,592	64,468	548	

However, compared with other producing countries in the world, India's share in the total production is only 2.6 per cent as can be seen from the following table:

			Co	ountry							d	Production uring 1968 000 tonnes)	Percentage to total production
Malaysia									CTUSE I			1,042	40.2
Indonesia			Т.			No.						740	28.5
Thailand											1 3 3	254	9.8
Ceylon			- David						10000000000	10.00	H.	146	5.6
India								Not the last		100	× 1850)	68	2.6
Cambodia	1000		9							-127	10.50	51	2.0
Others								27.4			-	294	11.3
		Tot	fal									2,595	100.0

### PRODUCTION AND CONSUMPTION OF RUBBER

(In metric tonnes)

		Produc	etion	Consumption				
Year	Nat. Rubber	Syn. Rubber	Recl. Rubber	Grand Total	Nat. Rubber	Syn. Rubber	Recl. Rubber	Grand Total
1950-51	 15,830		The state of the	15,830	19,854			19,854
1960-61	 25,697		5,183	30,880	48,148	7,397	5,453	60,998
1965-66	 50,530	14.741	9,764	75,035	63,765	21,553	9,774	95,092
1966-67	 54,818	22,358	11,538	88,714	68,685	23,592	10,913	103,190
1967-68	 64,468	19,942	12,228	96,638	74,158	23,324	11,862	109,704

The increase in the rate of consumption of raw rubber in India during the last 15 years has been fairly high. In spite of such a progress, the Indian rubber industry is still small in magnitude, in comparison with that of the more affluent nations.

The world consumption of synthetic rubber rose to 60 per cent of the total consumption in 1968 against 2 per cent in 1940. The synthetic rubber consumption in the last 25 years has gained such significance that in the U.S., the consumption is now 77 per cent of the total. The corresponding figures for other countries are, the U.K. 54 per cent, France 59 per cent, Japan 57 per cent, Germany 60 per cent. The percentage consumption of synthetic rubber in 1968 for India was only 23 per cent. It is estimated that the total world consumption of rubber (natural and synthetic) will be around  $7\frac{1}{2}$  million tonnes by 1975 and the proportion of synthetic rubber may come to 70 per cent. Therefore, if this increase in demand for synthetic rubber is to be met, an additional investment will be required.

India has been producing natural rubber since 1902 and has currently about 500,000 acres of land, mainly in Karala devoted to the production of natural rubber. Until 1956 there was little consumption of synthetic rubber, as India was, in fact, surplus in natural rubber. Gradually India started importing small quantities of synthetic rubber and by 1960 Indian rubber industry was consuming around 11 per cent synthetic rubber. Consideration was given, as early as 1957 by the Government of India to plan for the domestic production of synthetic rubber in view of the projected increase in demand of rubber. The local production of synthetic rubber was running far below the total capacity and in spite of that, the production during the last five year period was about 100,060 tonnes.

The total rubber consumption in India has been increasing at an average rate of 10 per cent per annum. The

following table gives the requirement of new rubber upto 1974-75.

('000 tonnes)

Year		Demand	Availability of natural rubber	Deficit
1968-69		1,14	71	43
1969-70		1,25	82	43
1970-71		1,40	92	48
1971-72		1,55	1,02	53
1972-73		1,70	1,15	55
1973-74	1	1,82	1,25	57
1974-75		2,00	1,35	65

In 1968-69, the import of natural rubber also continued in spite of the local production of synthetic rubber mainly because of the fact that the prices of imported natural rubber as well as indigenous natural rubber were lower than the local synthetic rubber. Still the percentage consumption of synthetic rubber has come around 25 per cent of the total consumption. But, by the end of IV Plan, when the total new rubber consumption is likely to be around 1,80,000 tonnes, some 55,000 tonnes of synthetic rubber, produced locally can be consumed. The estimated production of natural rubber will be some 1,25,000 tonnes and coupled with the consumption of 55,000 tonnes of synthetic rubber, only marginal quantities of special synthetic rubber will have to be imported.

Rubber Goods: India has a modern manufacturing industry engaged in the manufacture of various rubber goods such as tyres, toys, rubber footwears, tubes, hoses, fan belts, water-proof fabrics — Mackintosh, latex foam sponges and other rubber components of railway fittings etc. Of this, the manufacture of tyres and tubes accounts for more than 70 per cent of the total consumption of rubber.

The actual production of tyres for 1967-68 and 1968-69 and the estimated production for the next five years are given below:—

1967-68			4040			27,50,000
1968-69		10.				37,30,000
1969-70			11			42,00,000
1970-71	7600			1000		50,00,000
1971-72			3720		100	56,00,000
1972-73			-			63,00,000
1973-74					1.00	70,00,000

The estimated total requirements of automobile tyres and tubes are given below:—

1968-69				 	34,96,672
1969-70	10.0	12.0	-		38,48,239
1970-71	10.00				42,56,226
1971-72				 	47,37,836
1972-73	100			 4.	52,99,278
1973-74			14.0	 Mark 196	59,67,077

The present installed capacity of the various tyre manufacturing units is as follows:— (In lakhs)

		Existing capacity	Expansion under im- plementation	Total
Dunlop		11.97	2.50	14.47
Firestone		6.72		6.72
Ceat		4.00	2.50	6.50
Madras Rubber		3.60	2.50	6.10
Good Year		3.10	2.90	6.00
Incheck	*: •:	3.00	3.00	6.00
Premier		3.00	3.00	6.00
Mody (New)	*:*:	-	4.00	4.00
Total	(#7#E)	35.39	20.40	55.79

Considerable increase is registered in the export front of Indian Rubber products during the year 1968-69. This can be evident from the following comparative figures of export performance by the rubber industry during the years 1967-68 and 1968-69.

Product	1967-68	1968-69
	(Rupees	s Lakhs)
Automobile tyres and tubes	226.8	327.6
Tyre retreading material	5.6	2.9
Canvas footwear-rubber sole	159.3	200.8
Cycle tyres and tubes	65.4	76.2
Rubber gloves	43.8	61.7
Other rubber products	34.0	58.6
Total	534.9	727.8

This increase of Rs. 192.9 lakhs works out to about 36 per cent increase in exports in 1968-69 over the previous year.

To ensure sale of synthetic rubber, produced indigenously, at reasonable prices to consumers, the Union-Government has decided to control the sale prices of such rubber under Essential Commodities Act. The sale prices have been fixed after a cost study. The ex-works prices including Selling Commission of different grades of rubber are: Grade S-1,500 and S-1,502, Rs. 4·40 per kg., grade S-1,712, Rs. 3·90 per kg. and grade S-1958 Rs. 6·80 per kg.

# SERICULTURE AND SILK

NEXT to handloom and khadi, sericulture is the biggest village industry extending part or whole-time employment to about 3-2 million people. Sericulture provides raw materials for India's traditional handlooms which consume over 90 per cent of raw silk output. Exports of pure silk fabrics, fetched about Rs. 60 million in foreign exchange in 1968. The target of exports of pure silk fabrics for the Fourth Plan period has been fixed at Rs. 590 million.

A physical target of  $3\cdot 0$  million kgs. of raw silk has been fixed at the end of the Fourth Plan as against actual production of  $2\cdot 321$  million kgs. in 1968.

Silk is cultivated in 12 out of 17 States and in 3 out of 10 Union Territories. Mulberry silk is produced mainly in three States viz., Mysore, West Bengal and Jammu and Kashmir which together account for 98 per cent of the total mulberry silk production.

Among the non-mulberry varieties, tasar is extensively reared in the forest regions of Bihar, Madhya Pradesh and Orissa. Assam produces about 90 per cent of eri silk and the entire Muga silk is its exclusive production.

There are at present two Govt. Spun Silk Mills—at Channapatna in Mysore State and Assam Spun Silk Mills Ltd., at Jagi Road in Assam. The two mills together have an installed spindleage of 9,000 for spun silk yarn and 840 for noil yarn and the rated production capacity is 45,000 kgs. of spun silk yarn and 57,400 kgs. of noil yarn annually.

# SILK INDUSTRY IN STATES Andhra Pradesh

Andhra State produces small quantities of the three varieties of silk viz., mulberry, eri and tasar. The production of mulberry, eri and tasar during 1968 was 63 kgs., 26 kgs. and 809 kgs. respectively. The State possesses great potential for tasar. Mulberry silk industry is confined to the districts of Anantapur and Chittoor, eri culture to Mahbubnagar and Kurnool while tasar to the forest regions along the banks of the river Godavari in Karimnagar, Warangal and Adilabad Districts. It has a flourishing handloom silk weaving industry dispersed in Peddapuram, Dharmavaram, Siddipet, Raparti, etc. Eight sericultural schemes with an outlay of Rs. 1·75 lakhs were implemented by the State during 1968-69.

#### Assam

Assam is the biggest non-mulberry State having an extensive eri culture, exclusive muga culture and a little of mulberry silk production. The main silk cultivating districts are Goalpara, Kamrup and Nowgong in the Assam valley. Sibsagar is the main area for mulberry production. Since there are no large-scale industries in this border State, silk cultivation plays a vital role in its economy. It is estimated that about a million people derive their livelihood from silk cultivation.

There are 11 silk farms, two mulberry graft nurseries, four mulberry silk reeling units, four muga farms, 12 eri

grainages and 33 cocoon growers' and reelers' co-operatives and one experimental tasar seed station. Three cocoon marketing centres have been set up. There is also a well-equipped seri-cultural training institute and a research institute at Titabar. For utilisation of silk waste, the State Government has set up a 3,000 spindle Assam Spun Silk Mills at Jagi Road. The State implemented 11 sericultural schemes. The Central Silk Board had approved an outlay of Rs. 12·283 lakhs for these schemes during 1968-69.

### Bihar

Bihar is predominantly a tasar-producing State, contributing about 40 per cent of India's total tasar silk production. It is also the biggest eri silk-cultivating State after Assam. Bihar has also a small mulberry silk production. About 1,20,000 people, it is estimated, derive their livelihood from silk cultivation. The Board approved a provision of Rs. 7·00 lakhs for the implementation of 10 sericultural schemes during 1968-69.

Bihar produces over 1,26,726 kgs. of tasar raw silk annually. For development of the tasar silk industry, the State Government has set up in recent years 16 tasar seed supply stations, 42 sub-stations, 18 training centres, four marketing centres and 15 co-operatives. There is also a silk institute in Bhagalpur. The Central Silk Board established a central tasar research station at Ranchi in 1964. The State Government have decided to set up a spun silk mill with 3,000 spindles at Bhagalpur during the Fourth Plan.

# Jammu & Kashmir

Kashmir is considered as a prolific source for univoltine silk in India. The industry is mainly practised in the districts of Anantnag, Baramulla, Doda, Jammu, Reasi and Udhampur. The annual production of raw silk is about 66,832 kgs. or about four per cent of the total mulberry silk output. The industry provides employment to about 3,50,000 persons. The Kashmir Valley has the most suitable climate for univoltine silkworm rearing. The Board had approved 15 sericultural schemes, with an allocation of Rs. 23·12 lakhs which have been implemented during 1968-69.

There are also 45 mulberry nurseries — 29 in Jammu and 16 in Kashmir and four basic graft nurseries — two in Jammu and two in Kashmir. In recent years two basic seed cocoon farms have been set up. Besides, there are two hibernation centres at Srinagar and Batote. The C.S.B. has also established a Central Silkworm Seed Station in Srinagar for production of grand parent stock seed evolving suitable race of silkworms.

The entire cocoon output is reeled by filatures located in Srinagar and Jammu. These two factories have five units having a total installed capacity of 749 basins. There are no cottage basins or charkas in the State. There are about 1,030 handlooms and 148 powerlooms engaged in silk weaving. The main items of production are white plain silk called "tabby", silk shirting and coatings.

### Madhya Pradesh

Madhya Pradesh is the leading tasar producing State. The industry provides employment to about 50,000 rural people. The State has also a small mulberry silk production.

There are nine mulberry silk farms, one grainage, one graft nursery and a reeling unit, eight tasar seed farms, two tasar training centres, six tasar cocoon markets, a tasar research unit and one reeling and spinning unit. The Central Silk Board has established a Central Tasar Silkworm Seed Station at Lakha in 1964. 11 schemes were technically approved by the Board at a total cost of Rs. 5·170 lakhs.

# Maharashtra

In Maharashtra, Bhandara and Chanda districts have traditional tasar culture and there is one tasar farm at Armori; the State has also taken up eri cultivation on experimental basis. The Maharashtra State Khadi and Village Industries Board has under its fold two mulberry farms at Gureghar and Wai mainly for the purpose of research and demonstration.

### Mysore

Mysore is the biggest polyvoltine mulberry silk producing State in India contributing over three-fourths of the total mulberry silk production. The industry is concentrated in the districts of Bangalore, Kolar, Mandya, Mysore and Tumkur and to a small extent in Belgaum and Coorg. About seven per cent of the total population of the State derives livelihood from silk cultivation. The State Sericultural Department has spotted the presence of tasar silkworm in the forests of Sirsi (North Kanara District) and a scheme for development of tasar industry is under implementation. The State obtained 19 sericultural schemes technically approved by the Board with an allocation of Rs. 29·00 lakhs during 1968-69.

There are about 78,500 hectares under mulberry cultivation. The yield of leaf per acre from rainfed plantations is about 1,800 kgs. and from irrigated areas about 3,600 kgs. per year. Nearly five to six crops are taken from irrigated plantations and four to five from rainfed ones. There are four graft nurseries producing over six lakh grafts of improved strains.

At present there is a hill rearing station at B.R. hills for preservation of stock races and their amelioration. There are six nurseries, 35 silk farms, 54 grainages, 489 licensed seed preparers and 107 chawki centres.

Raw silk reeling is done by traditional charkas by improved cottage basins and also by filatures. Mysore produces about 8.56 lakh kgs. of charka silk (including 23,208 kgs. of dupion silk), 4.17 lakh kgs. of cottage basin and 1.33 lakh kgs. of filature silk. The State has at present over 4,250 active charkas, 2,850 cottage basins and 1,000 filature basins.

The Silk Marketing Co-operative Society, Bangalore has recently set up branches at Nanjangud and Kancheepuram (Tamil Nadu). There are 61 Government cocoon markets established under Mysore Silkworm Seed Act in addition to a voluntary cocoon market at Ramnagaram. For utilisation of silkwaste, the State has a Spun Silk Mill with 6,000 spindles. Besides, it has a sericultural training school at Channapatna and a silk conditioning house in Bangalore. The Central Sericultural Research and Training Institute, Mysore has a Central Silk Board project functioning at Mysore. The State has a flourishing silk twisting industry with over 60,000 spindles and a silk weaving industry with over 7,500 hand-looms and 2,600 powerlooms.

Orissa is a non-mulberry State having traditional tasar silk industry. The annual production of tasar silk is about 21,000 kgs. About 1,15,000 people depend for their bread on this pursuit. The State has no mulberry culture.

The State has now three seed supply stations, two eri seed stations, one reseling and spinning centre, one research unit and 19 tasar rearers' co-operative societies. The State has established a Tasar Co-operative Society in 1963. Besides tasar rearers' co-operatives, four weavers' co-operatives have also been organised, under the sericultural schemes. Seven schemes were implemented during 1968-69 at an outlay of Rs. 2·00 lakhs.

# Punjab

Sericulture is practised mainly in the districts of Amritsar, Gurdaspur, Hoshiarpur and to some extent in Ferozepur also. Mulberry is raised as tree and is mainly cultivated for their fruits and timber.

The present requirement of industrial seed in the State is 1,500 ozs. which is prepared at Dalhousie grainage. The State has a Basic Seed Station at Sujanpur. A demonstration-cum-training centre for reeling is operating at Dinanagar. Almost the entire cocoon crop is reeled on charkas. The Punjab State had a provision of Rs. 1.099 lakhs at its disposal for implementing 4 sericultural schemes during 1968-69.

## Tamil Nadu

The sericulture industry in Tamil Nadu is at present confined to the districts of Coimbatore, Nilgiris, Salem and Tirunelveli. The industry provides employment to about 6,000 people. Mulberry is raised as 'bush'. The area under mulberry was 1,658 hectares in 1967. There are 11 mulberry graft nurseries, one basic seed farm, four Government silk farms, one Government grainage, two chawki units, one reeling unit of 25 basins, four cocoon markets, one gut section at Coonoor and a Sericultural Co-operative Society at Talvadi. Tamil Nadu at present produces about 3,950 kgs. of raw silk. It is one of the major raw silk consuming States with over 20,000 handlooms on silk weaving. The State obtained technical approval from Central Silk Board for implementing 13 sericultural schemes with a provision of Rs. 9.490 lakhs, during 1968-69.

### Uttar Pradesh

The State accounts for an annual production of 3,000 Kgs. of mulberry silk. Five scricultural schemes at a total cost of Rs. 5·452 lakhs were implemented during 1968-69.

Mulberry silk industry is practised in six districts of Dehra Dun, Etawah, Garhwal, Gorakhpur, Nainital and Saharanpur. Eri culture is carried on in two districts of Rampur and Deoria and tasar culture is found in Mirzapur district.

Both bivoltine and polyvoltine silkworm races are reared. Forty-five chawki rearing centres and four demonstration silk farms have been set up. For production of disease-free seed, there are three grainages, and for production of basic seed cocoons, four farms. Recently 35 rearers' co-operatives and an apex society have been organised in the State. A co-operative silk filature of 30 basins was established in 1964. U.P. is a major raw silk consuming area with over 30,000 silk handlooms concentrated in Varanasi alone.

### West Bengal

Mulberry culture is practised in the districts of Bankura, Birbhum, Darjeeling, Malda and Murshidabad. The annual production of mulberry silk in the State is 2·91 lakh kgs. Mulberry is cultivated as 'bush'. There are about 6,500 hectares under mulberry. There are 16 mulberry nurseries and 12 Government grainages and 40 aided grainages. The State has also four mulberry graft nurseries, three in Malda and one in Murshidabad district. Three tasar seed stations with their sub-stations and three eri seed stations are functioning in the State.

The Board had approved 16 schemes with an allocation of Rs. 8·430 lakhs for implementation during 1968-69.

There is a foreign race seed station at Kalimpong and a hill nursery for raising F1 seed of foreign races at Matigara. Two chawki rearing centres have also been set up. Raw silk reeling is done on traditional charka. The use of Cottage basins for reeling has shown a progressive increase. A 100-basin filature has been set up at Madhughat (Malda Dist.). The State has established two training institutes — one for sericulture at Berhampore and other for reeling at Peddie (Malda). Besides, the Central Government's Central Sericultural Research Station is also located at Berhampore. The silk conditioning house is stationed at Calcutta. The important weaving centres are Bishnupur, Baswa, Raghunathpur and Chak Islampur. There are over 4,500 hand-looms in the State.

## UNION TERRITORIES

### Himachal Pradesh

Himachal Pradesh rears bivoltine mulberry silkworms. Kangra district forms a potential zone for production of reeling cocoons. The other regions where sericulture is practised are Sirmur and Mandi districts. The State has 22 mulberry graft nurseries, 53 block mulberry plantations, one basic seed station at Nagrota, two Government Grainages and 13 mulberry farms, one reeling-cumdemonstration centre and one silk filature at Nurpur. The present requirement of industrial seed in the State is about 1,400 czs.

# Manipur

Manipur has both mulberry and eri silk cultivation and potential for muga and tasar culture. Manipur produces about 300 kgs. of mulberry and about 429 kgs. of non-mulberry silk. The territory has three silk farms, and demonstration centres for eri and muga. There are over 4,000 rearers. Nine schemes at a total cost of Rs. 0.922 lakh were approved by the Board for implementation during 1968-69.

### Tripura

Sericulture has been recently introduced. In addition to six mulberry farms, two demonstration centres, one for eri rearing and the other for tasar rearing have been set up. Some 50 families have taken up silk cultivation as source of their livelihood. The Central Silk Board approved 5 sericultural schemes with a provision of Rs. 0·400 lakh, for implementation during 1968-69.

### CENTRAL SILK BOARD

An apex body consolidating and coordinating the sericulture industry in States, is the Central Silk Board. CSB is a 'body corporate' charged with functions 'to promote development of silk industry by such measures as it thinks fit'. The measures include rendering financial and technical assistance, 'undertaking, assisting or encouraging scientific, technological and economic research', 'devising means for improvement of all sectors', collection of statistics and to advise the Central Government on all matters relating to the raw silk industry, including import and export of raw silk.

Liaison Offices: In order to co-ordinate the developmental activities of silk industry in the States, the Board has set up liaison offices in New Delhi, Calcutta, Bangalore and Srinagar. These offices keep close watch on the sericultural schemes under implementation in the States and report technical progress.

#### Main Activities

1. Providing Funds for silk schemes: CSB recommends financial assistance in the form of either grant-in-aid or loan for execution of silk schemes by the State Governments. It also assesses technical progress of sericultural schemes under implementation in the country.

2. Providing Technical Know-How: CSB gives assistance for scientific and technical work undertaken by States' sericulture departments and helps them to secure technical personnel and guidance. The Board has so far sponsored visits of four sericultural experts from Japan and deputed 20 Indian Sericulture Officials to Japan and two to China. CSB also appoints experts' committees to help States to overcome major problems. Service Stations: Central Silk Board has established a Service Station viz. Central Silkworm Seed Station at Srinagar for production of basic seed. It has taken over from the Government of Tamil Nadu, the Hill Rearing Station at Coonoor (Nilgiri District) now named as Silkworm Seed Station to function as a sub-station for the Central Silkworm Seed Station, Srinagar. It has also established a Central Tasar Silkworm Seed Station at Lakha (M.P.). The Board also contemplates to set up a pilot centre in Himachal Pradesh for demonstrating the modern techniques of rearing/reeling with improved appliances.

# Sericultural Research:

Central Silk Board has co-ordinated sericultural research in the country. The Board is guided by a Committee of scientists on all matters relating to sericultural research. The Research Institute/Stations working under the control of the Board are:

The Central Sericultural Research & Training Institute, Mysore:

The Central Tasar Research Station, Ranchi, Bihar. The Central Sericultural Research Station, Berhampore (W.B.) and

The Sericultural Research Station, Titabar, Assam.

#### Training:

Central Silk Board is also assigned the task of training technical personnel on all India basis. The All India Sericultural Training Institute, Mysore, has been integrated with the Board's Research Station at Mysore. So far 280 candidates from various States have been trained.

Distribution of Imported Silk: CSB advises the Govern-

ment of India on import policy.

Domestic demand for raw silk in the country has always been in excess of the country's production. The Tariff Commission had estimated in 1966, the demand for mulberry and non-mulberry silk at 2.2 million kgs. for 1967 against which production in 1966 was 2.046 million kgs. Imports of raw silk are arranged to meet the gap between demand and production and also to meet the requirements of high grade imported silk by specialised sectors of the industry. Imports during 1968 amounted

to 0.37 lakh kgs. valued at Rs. 51.21 lakhs as against 0.42 lakh kgs. valued at Rs. 54.67 lakhs in 1966. From June 1966, imports of raw silk are permitted under the liberalised import policy for exporters against their export performance.

With effect from 2nd January, 1965, quality inspection of tasar silk fabrics was introduced to conform to minimum specifications prescribed, with a view to ensuring a sound foundation for export trade in tasar fabrics.

Exports: Exports of mulberry silk fabrics earned Rs. 4.18 crores in 1968 as against Rs. 2.88 crores in 1967 and Rs. 1.73 crores in 1965, while tasar exports fetched Rs. 1.32 crores in 1968 as opposed to Rs. 0.54 crore in 1966 and Rs. 0.72 crore in 1965. Of late Japan, West Germany, Sweden and Hong Kong have evinced keen interest in our tasar fabrics, the former two countries importing goods worth rupees eleven lakhs each.

The U.S. is our biggest market for mulberry silk fabrics importing goods worth Rs. 65.07 lakhs in 1968 followed by Sweden (Rs. 51.42 lakhs). Other major importers are Hong Kong, U.S.S.R., Japan, Malaysia, the U.K., and West Germany.

A variety-wise review of exports, indicates that dress materials and furnishing fabrics, valued at Rs. 1.92 crores in 1968, constituted over 46 per cent of our mulberry silk exports, while scarves and sarees accounted for 26 per cent and 15 per cent respectively. Other items in the list of our fabrics exports are ties, garments, brocades, silk embroidery yarn, etc. Of late readymade garments are gaining ground abroad whose exports were valued at Rs. 47.46 lakhs in 1968 against Rs. 32 lakhs in 1967.

Devaluation gave a prop for our silkwaste exports. Silkwaste exports were of the order of 4.95 lakh kgs. in 1968 earning Rs. 46.96 lakhs in foreign exchange as against 6.68 lakh kgs. valued at Rs. 66.49 lakhs in 1966.

Under the present export policy of silkwaste, the silkwaste of South Indian origin is allowed to be exported only through Madras Port and is linked with supplies effected to the indigenous spun silk mills situated at Channapatna (Mysore) and Jagi Road (Assam).

Protection to Sericulture Industry: The Government of India have accepted the recommendation of the Tariff Commission that protection to the sericulture industry should be continued for a further period of three years upto the 31st December 1969 at the existing rate of protective duty viz. 30 per cent ad valorem only.

Production of Raw Silk (1968)

				MU	LBERRY RAW	SILK	e Maratria de La Carrella de La Car	(In Kg.)
Sta	te		117	Filature Filature	Cottage Basin	Charka	Dupion	Total
Andhra Pradesh					63			63
Assam						16,100		16,100
		As . C	100			257	BOUND TEMPORAL	257
Tammer	<b>S</b> (1)	notes and the	to be no				436	12,287
		de la la		11,851				35,588
Kashmir Mall				35,588	470			458
Madhya Pradesh					458	0.045	14	3,042
Madras					783	2,245		14,06,101
Mysore				1,32,745	4,17,000	8,33,148	23,208	2,117
Punjab					209	1,908		
Utter Produch	ala un		31-102	2,588			317	2,905
Wort Dan 1				1,062	18,605	2,47,989	-	2,67,656
Himachal Prades	i			1,002	1,057		8	1,065
Manimum					34	54	11	99
Tripuro					8			8
Tripura			1 100		The state of the s		02.004	17,47,746
	To	otal		1,83,834	4,38,217	11,01,701	23,994	11,41,140

Sta	ate			Tasar	Eri	Muga	Total
Andhra Pradesh			A STATE OF	809	26		835
Assam					2,02,450	70,200	2,72,650
Bihar		-		1,26,726			1,26,726
Madhya Pradesh				1,35,000			1,35,000
Maharashtra .				1,700			1,700
Orissa				21,000	20		21,020
Jttar Pradesh .	-	110		45			45
West Bengal .			3000	6,950	7,380	3	14,330
AT THE REAL PROPERTY.	1167		HILLIAN S		426	3	429
Patana	. 3			The page - 199	330		330
	To	tal		2,92,230	2,10,632	70,206	5,73,065

# SMALL-SCALE INDUSTRIES\*

INDIAN industry is made up primarily of small-scale rather than large-scale units. It is reckoned that there are about two crore persons engaged in small-scale and cottage industries.

The small-scale industry is primarily the responsibility of the State Government and not of the Centre. But the Centre supplements the efforts of the State Governments.

Small-scale industries include all industrial units with a capital investment of not more than Rs. 7.5 lakhs irrespective of the number of persons employed. Capital investment now means investment only in plant and machinery, irrespective of the number of people employed and excluding investment on lands and buildings.

Under the State Aid to Industries Act/Rules State Governments are empowered to provide finance in the form of loans, guarantees for loans raised from banks, subscription to shares and debentures, etc. Although loans under the Act are generally for medium and long-term needs, advances are made for short-term requirements also.

In most of the States, loans up to Rs. 1,000 are being advanced on personal bonds, up to Rs. 5,000 against one or more personal sureties and above Rs. 5,000 at 75 per cent of the security (land, building, machinery, equipment, stocks and other assets including those created out of the loans). These loans are repayable in easy equal instalments spread over 10 years. No loan to any single party can normally exceed Rs. one lakh and to an industrial co-operative Rs. two lakhs without the prior concurrence of the Central Government.

The rate of interest on loans advanced under State Aid to Industries Act would be governed by the capital investment of small-scale industries—it would be 3 per cent to industrial undertakings with capital investment upto Rs. 2 lakhs,  $4\frac{1}{2}$  per cent to undertakings with capital investment of Rs. 2 to 4 lakhs and 6 per cent to undertakings with capital investment of more than Rs. 4 lakhs. This does not, however, apply to industrial co-operatives in the small-scale sector which will continue to receive loans at  $2\frac{1}{2}$  per cent.

New industries as well as industries which need revival or development in the cottage and small-scale sectors are eligible for grant of loans. Preference would be given to small-scale units in the light of their capital investment i.e. units with smaller capital investment would be given preference over others. While much is not yet known about the role of commercial banks in this process, the State Bank of India under its liberalised scheme made significant progress. Another landmark had been the initiation from 1st July 1960 of the Credit Guarantee Scheme by the Reserve Bank of India. Loans are also guaranteed to small industries by the National Small Industries Corporation and the State Financial Corporations. The N.S.I.C. has been extending financial assistance through its scheme under which it supplies machines on hire-purchase basis.

The most recent introduction is the scheme of the State Bank of India to grant loans to technicians on personal surety for starting small industries related to their respective technique or know-how.

Small-scale industries are distinct from village industries and handicrafts. Generally speaking village industries are of traditional nature catering primarily to local markets.

Small-scale industries can and do produce a large variety of consumer goods:—bicycles, agricultural implements, sewing machines, domestic electrical appliances, builders' hardware, cutlery and domestic hardware, furniture, wood work, footwear and other leather products, ceramics, glassware, sports goods, hand tools, surgical and drawing and surveying instruments, mechanical toys, matches, chemicals, paints and varnishes, polishes, etc.

Small-scale industries can really be classified into four main groups:—manufacturing industries, feeder industries to large industries, servicing industries, and ancillaries to large industries.

Manufacturing industries include complete articles or products manufactured for sale directly to consumers (consumer items) and in some cases used as spare parts.

Feeder industries are a kind of general engineering shops which specialise in certain types of products and services such as castings, forging tools and dies, electroplating and galvanizing, welding and other services for large scale industries. They do not have a regular line of work but take job orders from time to time depending upon the need of the large industry.

Servicing industries mostly cover light repair shops which are necessary to maintain mechanical equipment owned by the community. They cater to such works as auto repairs, repair of cycles and radios, photographic studios, repair of pumps, motors and other kinds of light machinery used in industry, agriculture, etc.

<sup>\*</sup> The working group on small-scale industries has agreed for an allocation of Rs. 927.03 lakhs for the establishment, expansion and servicing of small-scale industries during 1968-69 against an estimated expenditure of Rs. 792 lakhs during 1967-68.

Ancillaries to large-scale units include parts and components for several light engineering products such as cycles, sewing machines, electric motors, radios, clocks, automobiles, diesel engines, textile and other machinery and machine tools.

#### REVIEW

The Small-scale Industries Board which helps the Government in formulating various policies and programmes relating to the development of small-scale industries was reconstituted with effect from July 1961.

Up to the end of 1968, nearly 1.25 lakh small-scale units had been registered on an optional basis with the States' Industries Directorates as compared to about one lakh units at the end of 1965. The number of on-register small-scale factories which availed of facilities from Central Small Industries Organisation have been estimated at about 3 lakhs. Even the limited data available on the production and employment potential of this sector show that in 1963, about 29 per cent of total output in the industrial sector and 21 per cent of the value added by manufacture, were contributed by the small-scale sector. They provided employment to about 1.5 million workers.

Apart from the Central and State assistance to the small-scale industries, the State Bank of India and 14 major commercial banks, and the State Financial Corporations have been advancing long and medium term loans.

The number of industrial cooperative societies increased from 36,000 with a membership of 2·73 million in 1960-61 and sales Rs. 81·2 crores to about 57,000 with a membership of 3·65 million in 1967-68 and sales Rs. 185·1 crores.

Considerable progress was also made in providing credit facilities to small industries from institutional agencies. The credit limits sanctioned by the State Bank increased from Rs. 149·7 crores in 1968 to Rs. 180 crores in 1969.

Under the credit guarantee scheme of the Reserve Bank, guarantees for loans amounting to about Rs. 110 crores were sanctioned, as against Rs. 188.8 crores applied for.

In pursuance of the recommendations of the Rural Industries Planning Committee which was constituted in April 1962, 45 Rural Industries Projects have been taken up in selected rural areas. According to a recent review, nearly 1,450 new units had been set up in these project areas up to 1964-65. Recently, 4 more Projects have been taken up in the vicinity of large-scale industrial complexes of Ranchi, Durgapur, Bhadrawati and Bhilai.

The intensive campaign which aims at the development of small-scale industries in under-developed areas in various districts of States was launched in the States of Andhra, Uttar Pradesh, Madhya Pradesh, Mysore, Punjab\* and West Bengal during 1961-62, bringing the total number of such districts to 42.

There are now 16 Small Industries Service Institutes, 6 Branch Institutes and 66 Extension Centres, including Production Centres. They give valuable assistance to the small-scale units such as giving technical advice and demonstrations, preparing drawings for various types of improved tools and small machines and giving training in the handling of modern tools and equipment. The various training programmes initiated by the Small Industries Service Institutes include training of block level extension officers, evening classes in business management for the benefit of Government Officers and small-scale industrialists. Forty-seven mobile workshops fitted

with modern machine tools attached to the S.I.S.I. have been touring rural areas with a view to imparting technical knowledge.

The responsibility for the development of *khadi* and village industries, which help in relieving unemployment and under-employment in rural areas, has been vested in the Khadi and Village Industries Commission. (For details of the progress achieved in village industries, see article *Cottage Industries* in this book.)

The development of the coir industry, which is entirely in the small-scale sector, is the responsibility of the Coir Board. A sum of Rs. 3 crores had been allotted for its development during the Third Plan. The provision in the Fourth Plan for the industry is Rs. 4·42 crores.

An outlay of Rs. 101·74 crores has been provided in the Fourth Plan for the development programme of small-scale industries and industrial estates as compared to the estimated expenditure of Rs. 86 crores in the Third Plan. The break-up of the Fourth Plan allocation under the major heads is as follows (in Rs. crores): State Government schemes: 67·74; Industrial Estate: 20; Central Government schemes: 34.

According to the Fourth Plan (1969-74) the estimated expenditure during the Third Plan for the development of village and small-scale industries amounted to Rs. 219-56 crores, while the Fourth Plan provides for an outlay of Rs. 200 crores.

### **DEVELOPMENT AGENCIES**

The nature of assistance available and the organisations responsible for rendering such assistance are given below:—

- 1. (i) The technical know-how; (ii) industries information service; (iii) model schemes and industrial designs; and (iv) market research: Central Small Industries Organisation (Small Industries Service Institutes and Extension Centres); (v) Common facilities (Small industries service institutes, extension centres and State Govts.).
- 2. Training: both technical and managerial (Small industries service institutes, State Govts. Directorates of Industries), Directorate of Training and Employment (Industrial Training Institute).
- 3. Finance: (a) For eash loans:—(i) Long term (State Govts. under State Aid to Industries Acts, State Financial Corporations); (ii) Short term (State Bank of India, cooperative banks, scheduled banks under the Guarantee Scheme of the Reserve Bank of India); (b) For machinery on hire purchase (National Small Industries Corporation, New Delhi and its branches).
- 4. Marketing Services (Specially Govt. Purchase Scheme) (National Small Industries Corporation and its branches).
- 5. Factory accommodation in industrial estates (State Govts. Directorates of Industries), National Small Industries Corporation (for accommodation at Okhla and Naini industrial estates only).
- 6. Raw material and power supply (State Directorates of Industries).

The agencies mainly concerned with the development of small-scale industries in the country are thus the State Directorates of Industries, Small Scale Industries Organisation under the Development Commissioner, Small Industries Service Institutes functioning in the States as well as in New Delhi and the National Small Industries Corporation, with four branches one each at Bombay, Calcutta, Delhi and Madras.

<sup>\*</sup> Composite State.

### INDUSTRIES AND LOCATION

The Office of the Development Commissioner of Small-Scale Industries, New Delhi, carried out a survey in certain areas relating to location of industry and production. The findings of this survey which show what industries were located in the area surveyed and what the production was in that area are given in the 1959-60 edition of the *Directory*.

### **EXPORTS**

The following items of small industries' products have been selected by the National Small Industries Corporation for promoting their sales in overseas markets:—Leather footwear and leather goods; Cotton and Woollen hosiery; Sports goods; Builders' hardware, locks and scissors; Tinned fruits, chutneys and pickles; Paints and varnishes; Glass beads.

National Small Industries Corporation and the State Trading Corporation also assist in import and distribution of some articles like copper, zinc, copper and brass scrap, cycle and sewing machine parts, knitting needles.

# NATIONAL SMALL INDUSTRIES CORPORATION LTD.

(See article 'All India Corporations').

### SERVICE INSTITUTES

The Institutes give broad outlines of the potentialities of different small-scale industries. They supply information on the number of existing units, their production and installed capacities as well as the present consumption, future demands and export possibilities for their products.

Information about the working capital required for a new unit, suppliers of machinery and raw materials and markets for the sale of products, is also made available by the Institutes.

There are 22 Small Industries Service Institutes including six branch institutes in the country.

They are located in New Delhi, Bombay, Calcutta, Madras, Agra, Jaipur, Ludhiana, Bangalore, Indore, Rajkot, Patna, Cuttack, Gauhati, Srinagar, Kanpur, Allahabad, Hubli, Hyderabad, Trichur, Ahmedabad and Goa.

There are also 66 Extension Centres to provide specialized technical assistance to particular industries.

### INDUSTRIAL ESTATES

Another feature of the industrial policy is the establishment of industrial estates, This was initiated in 1955.

The main object is decentralization. Government seeks to remove small industrial units from crowded urban

areas and thus reduce the pressure on the latter, and secondly it seeks to provide small units with factory space and common facilities for efficient working.

The State Governments acquire and develop land, construct roads, put up factory buildings, arrange for supply of water and electricity and also set up common service workshops. The factory buildings in the States are then let out at concessional rents, outright sale or hire-purchase basis to small entrepreneurs.

The Government of India advance to the States the entire cost of the estates as loans. Grants are also given for specific purposes, such as planning and designing of these estates. The loans will carry interest at 4½ per cent.

These industrial estates provide better accommodation for small industries with facilities of power, water, etc. They bring industries together and facilitate the establishment of common servicing centres, introduction of modern techniques, collective purchase of raw materials and sale of finished products. They stimulate the cooperative spirit among them.

Industrial estates are of two kinds—large estates near big cities and urban areas and small ones in community development blocks.

The larger estates cost roughly from Rs. 20 to 30 lakhs, the smaller ones from Rs. 2 to 3 lakhs.

Only two — the one at Naini and the other at Okhla — are under the National Small Scale Industries Corporation. The rest are under the States.

During 1960, the Government took decision to establish several new types of Industrial Estates namely Industrial Estates by private agencies, Ancillary Industrial Estates, Functional Industrial Estates, University Industrial Estates and smaller Industrial Estates.

Apart from the government sponsored industrial estates a number of estates are being set up by Cooperative Societies and Joint Stock Companies of industrialists. In Maharashtra and Gujarat 20 such estates were functioning at the end of March 1965.

The State Governments had established 345 industrial estates by the end of September 1967. They provided accommodation in 5,814 sheds. The investment in fixed asset is Rs. 207 crores and employment provided is 979,000 persons which forms 9·1 and 40·1 per cent of all India factories investment and employment respectively.

With the nationalisation of 14 major commercial banks it is expected that more funds would be allocated to this sector.

Industrial Estates approved by the State Governments appear already in the previous editions of the *Directory*.

# SPICES

INDIA has been, from ancient times, regarded as the home of spices. Spices play a very important part in the dietary of the people. The crops that produce the major spices are pepper, ginger, cardamom, turmeric and chillies, the minor spices being coriander, cumin, celery, fennel, fenugreek, clove, nutmeg, cinnamon and vanilla.

Indian spices are of the finest quality and today the demand for them has considerably increased in all countries. After meeting the internal requirements, substantial quantities of these spices are exported to foreign countries, to earn the much needed foreign exchange to our country.

#### PEPPER

Pepper is the most important dollar earning spice crop in India. It is grown in an area of about 100·89 thousand hectares. Production for 1968-69 is estimated at 21,420 tonnes against 22,700 tonnes during 1967-68. Indian pepper is of the finest quality in the world. In India, pepper is grown extensively in the States of Kerala, and Malnad parts of Mysore and on a small scale in

scattered localities in the eastern slopes of the Western Ghats.

More than 90 per cent of the pepper cultivation in India is concentrated in Kerala, the rest being shared by Mysore, Tamil Nadu and Pondicherry. During 1967-68, India had 102,260 hectares under pepper cultivation with a total production of 22,700 tonnes. The State-wise break-up for 1968-69 is given below:

State		Area ('000 hectares)	Production ('000 tonnes)
Kerala	The cases	98.83	20.44
Mysore		 1.80	0.92
Tamil Nadu		 0.23	0.05
Others		 0.03	0.01
Total		100.89	21.42

Export of pepper, which ranks first among dollar earning spices, was 18,952 tonnes valued at Rs. 9.75 crores during 1968-69.

### GINGER

India is the largest producer of ginger in the world. During 1968-69 the country had 20,680 hectares under ginger and production was 19,290 tonnes with the following state-wise break-up.

State		Area ('000 hectares)	Production ('000 tonnes)
Andhra Pradesh		0.85	0.20
Gujarat		0.79	0.60
Kerala		11.42	10.84
Madhya Pradesh		0.71	0.64
Maharashtra		0.36	0.28
Mysore		1.06	1.14
Orissa		1.64	1.88
Rajasthan		0.06	0.05
Tamil Nadu		0.37	0.33
West Bengal		1.50	2.00
Himachal Pradesh		1.66	0.97
Tripura		0.26	0.36
Total	Wall,	20.68	19.29

By exporting 1,717 tonnes of ginger, India earned foreign exchange worth Rs. 0.89 crore during 1968-69.

### CHILLIES

The cultivation of this crop is scattered over almost all the states. The major chilli growing states are Maharashtra, Andhra Pradesh, Mysore, Tamil Nadu and Madhya Pradesh. The area under chillies in India during 1968-69 was estimated at 675,700 hectares and the total production at 418,700 tonnes. The state-wise break-up of area and production is shown in the following table.

Sta	te			Area ('000 hectares)	Production ('000 tonnes)
Andhra P	rades	h	117	144.5	81.4
Assam				7.7	4.7
Bihar				21.7	16.3
Gujarat		C. S. Th		23.2	14.1
Haryana	2715	Service .		4.5	2.3
Jammu &	Kasl	mir		1.0	3.0

State		('(	Area 000 hectares)	Production ('000 tonnes'
Kerala			3.2	2.1
Madhya Pradesh		E31 N 3	49.3	16.3
Maharashtra		Stolen "	170.4	103.3
Mysore			97.6	27.6
Orissa	1000		19.1	11.3
Punjab		- 1	17.2	14.5
Rajasthan		milit Sull	19.5	12.8
Tamil Nadu	11115		69.2	92.1
Uttar Pradesh			17.8	6.4
West Bengal			8.1	9.8
Delhi		and the	0.1	0.1
Himachal Prades			0.4	0.1
Tripura	1.00	CONTRACTOR OF STREET	1.1	0.4
Pondicherry			0.1	0.1
Total	1		675.7	418.7

Through exports of 9,208 tonnes of chillies the country earned foreign exchange worth Rs. 2.26 crores during 1968-69.

#### TURMERIC

The major turmeric growing States in India are Maharashtra, Andhra Pradesh, Bihar, Tamil Nadu, Orissa and Kerala. The production of turmeric in India during 1967-68 was 118,200 tonnes from an area of about 55,800 heetres. The state-wise break-up of area and production of turmeric is given in the table below:

State			Area ('000 hectares)	Production ('000 tonnes)
Andhra Pradesh		11.	14.0	37.7
Assam			4.1	2.5
Bihar		1	6.0	6.9
Kerala			4.4	3.7
Madhya Pradesh			0.3	0.2
Maharashtra	200	W.	9.8	16.6
Mysore	-166		1.3	2.6
Orissa			7.0	19.6
Rajasthan			0.1	0.1
Tamil Nadu			6.6	23.8
Uttar Pradesh			0.4	0.6
West Bengal			1.2	3.3
Tripura			0.6	0.6
Total	4		55.8	118-2

The exports of turmeric during 1968-69 amounted to 6,351 tonnes and fetched Rs. 2·11 crores by way of foreign exchange.

### TREE SPICES

India is in deficit in respect of tree spices viz. clove, nutmeg and cinnamon and to supplement the internal demand, imports are being made. During 1968-69, 45 tonnes of clove valued at Rs. 2·72 lakhs, 56 tonnes of nutmeg valued at Rs. 4·05 lakhs and two tonnes of cinnamon valued at Rs. 6·13 lakh were imported into the country.

### DEVELOPMENT

Adoption of intensive cultivation practices such as proper manuring, plant protection, irrigation etc., increase in area wherever considered necessary and adoption of high yielding improved varieties of seed materials wherever available are some of the measures proposed. Large scale

multiplication and distribution of the new hybrid pepper 'Panniyur—I' which gives about four times the yield of the best local variety is one of the important measures already adopted. It is proposed to achieve an additional production of 19,000 tonnes of pepper, 5,000 tonnes of Ginger and 15,000 tonnes of turmeric by the end of the Fourth Five Year Plan period. A total annual production of 20,000 seedlings of clove and 10,000 seedlings each of nutmeg and cinnamon has been targetted for distribution to growers during the Fourth Plan period. A programme for production of nutmeg grafts which are early bearers has also been envisaged during the Fourth Plan period.

### MARKETING

Since some of the major spices viz. pepper, ginger, turmeric and chillies offer good scope for marketing on co-operative lines, the National Co-operative Development Corporation provides financial assistance in the form of managerial subsidy in collaboration with the concerned State Governments, to such of those selected societies in the important regions of production. As a result of the efforts made by the Regional Office, Arecanut & Spices Development, several schemes for organisation and development of co-operative marketing of spice

crops such as pepper, ginger, chillies and turmeric were implemented in the major producing states of Kerala, Mysore, Tamil Nadu, Andhra Pradesh, Orissa etc.

The following will indicate the quantities of these commodities co-operatively handled during the year 1966-67.

		Quantity	Value		
Pepper		9,840 quintals	Rs. 35.33 lakhs		
Ginger	1 1	1,061 ,,	Rs. 2.86 ,,		
Chillies		6,310 ,,	Rs. 18.05 ,,		
Turmeric		6,059 ,,	Rs. 8.52 ,,		

#### PUBLICITY

Leaflets on turmeric, chillies, coriander, cumin & fennel, based on the latest results on research are prepared and distributed among the growers of the crop. Besides, a documentary film on Panniyur—I has been produced and released in English, Malayalam, Kannada and Tamil languages. Panels depicting the techniques of improved agricultural practices including pests and disease control are prepared and explained to the farmers at various exhibitions and fairs.

#### EXPORTS

# EXPORTS OF SELECTED SPICES FROM INDIA 1966-67 TO 1968-69

(Q = M. Tons; V = Rs. crores)

Commodity _			196	6-67	196	57-68	1968-69		
Commod	ity		Q	v	Q	v	Q	v	
Pepper			217,85	11.83	250,63	13.10	191,16	9.82	
Cardamoms			17,23	8.13	15,43	7.12	14,01	6.63	
Chillies		9.1	61,70	2.78	72,26	2.10	91,69	2.26	
Ginger			50,35	1.61	39,15	1.31	15,69	0.82	
Turmeric		100	94,90	1.40	59,76	1.38	62,89	2.09	
Curry Powder			10,90	0.46	12,54	0.51	17,51	0.72	
Coriander seed			4,89	0.12	24,35	0.42	32,79	0.43	
Celery seed	• •		18,42	0.43	17,82	0.51	23,22	0.85	
TOTAL (k)			517,14	27.82	521,95	27.17	516,27	24.78	

Source: Monthly Statistics of the Foreign Trade of India, DGCIS, Calcutta.

(k) includes other spices such as cumin seed, fennel seed, fenugreek seed, garlic, aniseed, cassia, mace and tejpat.

# SUGAR INDUSTRY

THE Sugar Industry in India is the second largest industry in the public sector, next only to textiles. The total capital employed in the industry is over Rs. 400 crores and the value of its production about Rs. 660 crores. It contributes about Rs. 150 crores to the Central and State Exchequers by way of excise duty, cane cess etc. The industry employs over 2·25 lakh workers who receive about Rs. 40 crores annually by way of salaries. Besides, it sustains about 20 million agriculturists who received about Rs. 400 crores in 1968-69 season.

# PRODUCTION IN THE PLAN PERIOD

The Sugar Industry produced in 1955-56 the last year

of the First Five-Year Plan, about 18.9 lakh tonnes of sugar, in 1960-61 the last year of the Second Plan, 30.3 lakh tonnes and in 1965-66 the last year of the Third Plan about 35.3 lakh tonnes.

The industry has achieved a record production of 35.60 lakh tonnes during the year 1968-69.

#### SUGARCANE

The following table gives the figures of sugarcane acreage, production of sugarcane, per acre yields of sugarcane and sugar production actually achieved in the season 1962-63 to 1968-69.

	Year			Area under sugarcane (acres)	Sugarcane production (tonnes)	Yield of cane per acre (tonnes)	Sugar production (tonnes)
1962-63				56,35,000	9,44,66,000	16.76	21,35,183
963-64				55,77,000	10,49,07,900	18.81	25,62,345
964-65				63,28,000	11,95,98,000	18.90	32,31,786
1965-66				68,67,000	11,96,42,000	17.42	35,32,259
1966-67		1		57,53,000	9,27,26,000	15.94	21,50,699
967-68				50,33,000	9,68,84,000	19.30	22,48,994
968-69		1	- Line	60,50,000	11,75,80,000	19.44	35,60,880

The following are the regionwise figures of sugar production achieved in the 1967-68 (Oct./Sept.) and 1968-69 seasons respectively in lakh tonnes:

West Bengal 0.07; 0.07; Assam 0.04; 0.05; Whole Bihar 1.47; 2.60; Eastern U.P. 2.39; 3.71; West U.P.: "A" 2.03; 2.39; "B" 0.96; 1.11; "C" 1.64; 2.68; "D" 1.11; 1.86; Whole U.P. 8.13; 11.75; Haryana 0.54; 0.69; Punjab; 0.27; 0.41; Rajasthan 0.06; 0.13; M.P. 0.04; 0.14; Orissa 0.05; 0.15; Maharashtra 6.21; 9.74; Gujarat 0.47; 0.76; Andhra Pradesh 1.89; 3.40; Tamil Nadu 1.87; 3.32; Mysore 1.22; 2.10; Kerala

0.07 ; 0.08 ; Pondicherry 0.09 ; 0.21 ; All India 22.49 ; 35.60

# SUGAR EXPORTS

Following the sharp decline in sugar production during the 1966-67 season exports in 1967 had to be limited to only about 2·17 lakh tonnes against about 4·41 lakh tonnes exported in 1966. In 1968 and 1969 about 98,000 and 95,400 tonnes of sugar were exported to meet the preferential quota of U.S.A. and U.K. The countrywise break-up of sugar exports during the years 1966 to 1969 is given below:—

(metric tonnes)

Country									1966	1967	1968	1969
U.S.A.				1000		10.0			65,442 · 149	66,273 · 105	73,327 · 746	70,000 - 000
Japan	-								=			
U.K.	100								98,627 · 845	78,364 · 568	25,400.677	25,400.000
South Viet									19,370 · 514		-	A LOS COMPANIES
Malaysia a				AN TOP	Want 6	-11-11	0.0		99,213.949	gal salanna nin	William Control of the	The state of the s
Hong Kon		Saboro	9	21.00	Carlo Del	- T			10,139 · 689	-	-	
[taly	5	O piedo		Winds	1000	The state of	243,103	4	-	-		-
Canada				16.65		108	1000		51.073 - 778	71,930.082	-	-
Korea						- Suber						-
Persian Gu			• •			al da i					-	
Viet Nam		***	••					10.18	r (all light of	The state of the s		_
Lambia		N		**	1000				10.307 · 727		AT ALL SOLD	_
ran	**				**				40.557 • 428	THE MANAGEMENT OF THE PARTY.	The state of the s	
Lebanon	••	••	**	11.00	**				10,091.000			-
		1 5 W	**	TAPE I		1			15,402 · 161	No. of Part of the	organica mentanta	To pay the same
raq France					-		1		20.898 • 446			
West Same					100		1 3000	1000	62.895	TALL BURNE		a to see the second
vest Samo	oa	***		20.0	THE PERSON		15 9 50	1	02 000	A STATE OF THE PARTY OF THE PAR	A STATE OF THE REAL PROPERTY.	UNION STATE
									441,187.581	216,567 · 755	98,728 - 423*	95,400.000

<sup>\*</sup> Includes about 3,000 tonnes exported against the quota for 1968-69.

Towards the end of 1968, a new International Sugar Agreement was negotiated. Under this India has been allotted an export quota of 3.5 lakh tonnes.

# PROSPECTS FOR THE 1969-70 SEASON

The Government have continued their policy of partial decontrol for the season 1969-70. Under this policy the Government will acquire 70 per cent of the sugar produced leaving 30 per cent of the production for free sale.

The prospects for sugar production in the 1969-70\* season are quite bright. The cane acreage in factory areas in the 1969-70 season is higher by about 14 per cent as compared to the last year and expectations are that the sugar production in the season may be around 40/42 lakh tonnes.

# CO-OPERATIVE SECTOR

# National Federation of Co-operative Sugar Factories Ltd.

L-8, South Extension Part II, New Delhi 49.

The National Federation was set up in December 1960 with the object of coordinating and facilitating the working

of co-operative sugar factories, State and Zonal Federations and to assist in the promotion of organisation of new co-operative sugar factories.

So far, licences/letters of intent have been issued for establishment of 110 co-operative sugar factories. Of these 64 sugar factories have gone already into operation. Others are in various stages of establishment. In the year 1968-69, the co-operative sugar factories produced 12·05 lakh tonnes of sugar, which was 34 per cent of the total production in the country in that year. The co-operative sector was also the major producer and supplier of raw sugar for export in 1969. The co-operatives' contribution was 0·73 lakh tonnes of raw sugar or about 77 per cent of the total raw sugar production.

The National Federation has undertaken many useful activities during the last nine years of its existence and has made its presence felt. It is recognised by Government as the main spokesman of the co-operative sector in the sugar industry.

<sup>\*</sup> The total sugar production during the first seven months of 1969-70 was 36-77 lakh tonnes against 20-95 lakh tonnes during the same period in 1968-69.

# TOBACCO INDUSTRY\*

INDIA is the third most important tobacco producing country next only to U.S.A. and Mainland China and accounts for about 8 per cent of the total world tobacco production. She is also the fourth biggest exporter of tobacco in the world today.

India produces several types of tobacco which fall under two botanical species namely N. tabacum and N. rustica, and are used for different purposes such as in the manufacture of cigarettes, bidis, cigars and cheroots, and for chewing, hockah and snuff. The total area under tobacco during 1967-68 was 397,600 hectares and the total production was 344 million kgs. The estimated production of tobacco in million kg. under different types during 1967-68 is given below:

Cigarette Tobacco 125 (Virginia 86·9; Others 38·1); Bidi Tobacco 95; Chewing Tobacco 63·7; Hockah Tobacco 35; Cigar and Cheroot Tobacco 20·8; Snuff 4·5; Total 344.

Andhra Pradesh, Gujarat, Tamil Nadu, Mysore, Bihar, Uttar Pradesh, West Bengal and Maharashtra, are the important tobacco growing States in the country.

Statewise figures of tobacco production (in million Kg.) for 1967-68 are as follows: Andhra Pradesh 155·2; Gujarat 90·3; Tamil Nadu 19·7; Mysore 14·9; Bihar 11·2; Uttar Pradesh 10·4; West Bengal 10·2; Maharashtra 7·5; Others 24·6; Total 344.

Source:—Directorate of Economics and Statistics Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture), Government of India, New Delhi.

Variety-wise exports of unmanufactured tobacco (in million kg.) from India during 1968-69 were as follows: Virginia, Flue-cured 41·2; Virginia, Sun-cured 1·1; Sun-cured Country (Natu) 1·7; Chewing 4·3; Others 4·4; Total 52·7 (Valued at Rs. 33·2 crores).

Indian tobacco, mostly unmanufactured, is exported to over 60 countries in the world: Among them United Kingdom continues to be the main market. U.S.S.R., Japan, S. Yemen Republic, German Democratic Republic, Belgium, Nepal, Singapore, United Arab Republic, Indonesia and Netherlands are the other important countries importing tobacco from India. Exports of raw tobacco (in million kgs) to different countries during 1968-69 were as follows: U.K. 23·7; U.S.S.R. 5·0; Japan 3·3; S. Yemen Republic 3·3; G.D.R. 1·7; Belgium 1·5; Nepal 1·5; Singapore 1·5; U.A.R. 1·3; Indonesia 1·2; Netherlands 1·1; Others 7·6; Total 52·7.

Source:—Monthly Statistics for Foreign Trade of India, Department of Commercial Intelligence & Statistics, Calcutta.

Only about 3·3 lakh kgs. of unmanufactured tobacco was imported into India during 1968-69 for blending in the manufacture of cigarettes and for the use of cigar industry. Imports of tobacco products were negligible.

It is estimated that about eight lakh growers and six lakh curers are engaged in the tobacco industry in India besides several lakhs employed in grading, marketing and manufacturing. There are in all 13 cigarette factories in India—six in Maharashtra, two each in Uttar Pradesh and West Bengal and one each in Andhra Pradesh, Bihar and Mysore. It is estimated that about 60 billion pieces of cigarettes were manufactured in India in 1968.

Bidi industry is spread all over the country and it is estimated that about 240 billion pieces of bidis were rolled in India during 1967-68.

Tobacco is an excisable commodity and its movements, processing and manufacture from the stage of harvesting till it is consumed or exported are controlled by the Central Board of Excise and Customs of the Ministry of Finance, Government of India. Different rates of duties are levied for different types and modes of consumption.

Tobacco which is a good source of revenue to the National Exchequer contributed Rs. 167 crores by way of excise duties during 1968-69. It also fetched Rs. 33.8 crores of foreign exchange during the same year.

Research programmes on tobacco are implemented by the Indian Council of Agricultural Research. The Central Tobacco Research Institute at Rajahmundry (Andhra Pradesh) has been set up mainly to investigate the fundamental problems connected with various aspects of tobacco. The institute also coordinates the work of other tobacco experimental farms spread all over the country. The regional research stations attached to the Institute in various States are carrying out research work on the improvement in the yield and quality of different types of tobacco grown in the concerned regions. The research work on bidi tobacco is undertaken at the Institute of Agriculture, Anand (Gujarat) and the Tobacco Research Station, Nipani (Mysore). Besides, the Indian Council of Agricultural Research also finances several other schemes in the important tobacco growing States in the country.

The Regional Office, Tobacco Development in the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Agriculture), Government of India with its Headquarters in Madras looks after the development and marketing activities of tobacco. All the schemes on tobacco development, marketing economics, including the centrally sponsored schemes on tobacco are financed by the Government of India through this Regional Office.

The Indian Tobacco Development Council constituted by the Government of India is having official representatives from Central and State Governments, representatives of tobacco growers, traders, industry, Members of Parliament etc. This Council is an advisory body which will (1) consider from time to time the tobacco development programmes formulated by the Central and State Governments, (2) consider and review the progress of tobacco development in the context of targets laid down, (3) consider and review the problems of tobacco marketing and trade including price policy and to make suggestion for improvement etc. and (4) attend to any other function which may from time to time be assigned by the Government of India.

A well organised extension service operates in the tobacco growing areas under the control of Agricultural Departments of the State Governments for educating and training the farmers in the improved methods of harvesting, handling and curing of tobacco.

A unique feature of India's tobacco export trade is that all unmanufactured tobacco exported from the country is strictly controlled for quality. Statutory grades for all the varieties entering the export trade have been prescribed under the provisions of the Agricultural Produce (Grading and Marketing) Act, 1937. These grades are popularly known as 'Agmark' grades. With a view

<sup>\*</sup> Tobacco consumption: Consumption of tobacco in cigarette and bidi manufacture has fallen by 13,260 tonnes in 1968. The figures for 1966, 1967 and 1968 were 1,43,260 tonnes, 1,38,130 tonnes and 1,24,870 tonnes respectively. In 1968-69, up to November, 1,20,000 kg. of tobacco, worth Rs. 5.53 lakhs, has Deen imported. The corresponding figures for 1967-68 are 6,30,000 kg. and Rs. 132.82 lakhs.

BANKING 107

to enabling the reputation of Indian tobacco in the world market the Government of India by a notification in 1945 prohibited the expert of specified varieties unless the same were graded and marked under the 'Agmark' and were certified to that effect.

The main objective of the Tobacco Export Promotion Council set up by the Government of India is to support, protect, maintain and promote exports of unmanufactured and manufactured tobacco. The Council undertakes market studies in foreign countries and supplies information to Indian exporters on the market situation and trade opportunities abroad through participation in International Exhibitions and Trade Fairs. The Council also sends delegations, study and sales team to identify the foreign requirements and to promote exports by personal contacts.

# BANKING

# SCHEDULED COMMERCIAL BANKS

DURING 1968, the number of scheduled commercial banks which account for most of banking business in India stood at 73. The total number of branches of these scheduled banks rose to 7,445 against 6,779 in 1967. The population served per office declined from 73 thousand to 69 thousand in 1968. During the year four more clearing houses were established bringing the total number of clearing houses to 97.

### DEPOSITS

Aggregate deposits of the scheduled commercial banks (business in India) rose from Rs. 4,221 crores in 1968 to Rs. 4,842 crores at the end of December, 1969. Of this,

demand deposits (excluding inter-bank deposits) amounted to Rs. 2,110 crores (43.6 per cent) and time deposits (excluding inter-bank deposits) Rs. 2,732 crores (56.4 per cent).

Total deposits of the different classes of scheduled commercial banks during 1968 (total business) are given below in Table I. It may be seen from this table that the aggregate deposits have risen from Rs. 4,085 crores in 1967 to Rs. 4,619 crores in 1968. Of this the fixed deposits amounted to Rs. 2,329 crores (50·4 per cent), savings Bank deposits Rs. 1,096 crores (23·7 per cent) and current deposits, Rs. 1,194 crores (25·9 per cent).

Table I

(Rs. lakhs)

			Year	Fixed	Savings	Current	' Total
1.	State Bank of India		1966 1967 1968	350,49 382,50 448,94	120,94 139,77 162,49	314,67 336,13 338,40	786,10 858,40 949,83
2.	Subsidiaries of State Bank of India		1966 1967 1968	137,14 145,92 155,23	50,38 57,84 65,77	51,37 59,88 65,23	238,89 263,64 286,23
3.	Other Indian scheduled banks		1966 1967 1968	1,168,09 1,286,09 1,492,31	594,80 683,43 780,93	554,31 590,44 674,80	2,317,20 2,559,96 2,498,04
4.	Foreign scheduled banks		1966 1967 1968	190,57 206,34 232,94	69,47 78,38 86,84	115,64 118,12 115,44	375,68 402,84 435,22
	Total scheduled banks	pose Pose Pose	1966 1967 1968	1,846,29 2,020,85 2,329,42	835,59 959,42 1,096,03	1,035,99 1,104,57 1,193,87	3,717,87 4,084,84 4,619,32

Source: Statistical Tables relating to Banking in India: 1968.

The pattern of interest paid on banks deposits for the 70 reporting banks are given below:

(Rs. lakhs)

Rate of	interest	(%)		April, 1967	April, 1968
0			200	8,85.49	8,72.46
-11				77.80	61.30
1-3		- 14	111	82.70	85.20
-4				8,53.02	10,52.94
-41	NAME OF TAXABLE PARTY.	PALA		1,57.23	1,33.45
1-5	THE REAL PROPERTY.			1,93.26	1,62.20
-51		1000	M. William	1,26.86	2,16.78
1-6		1000		6.61.06	$6,25 \cdot 71$
7-7		0		4,56.55	5,65.15
		13.18v		89.59	93.39

35,83.55 38,68.58

The Statewise distribution of deposits of scheduled commercial banks is given below:

		December 196	8
States*	Amount Rs. crores	Percentage (%)	Per capita deposits (Rs)
Andhra Pradesh	154.94	3.5	37.3
Assam	39.34	0.9	26.7
Bihar	163.81	3.7	29.7
Gujarat	376.73	8.5	149.6
Haryana	54.65	1.2	57.6
Jammu & Kashmi	25.23	0.6	64.0
Kerala	130.38	2.9	64.3
Madhya Pradesh	107.35	2.4	27.7
Madras†	280.58	6.3	73.5

\* Excludes Union Territories.

† Now Tamil Nadu.

		December 196	8
States*	Amounts Rs. crores	Percentage (%)	Per capita deposits (Rs.)
Maharashtra	 1,103.53	24.8	231 · 5
Mysore	 218.81	4.9	78.2
Nagaland	 0.78	Neg.	18.6
Orissa	 26.37	0.6	12.8
Punjab	 193.40	4.3	138.8
Rajasthan	80.72	1.8	32.5
Uttar Pradesh	 355.43	8.0	40.9
West Bengal	 606-22	13.6	142.4

<sup>\*</sup> Excludes Union Territories.

# CREDIT EXPANSION

At the end of December 1969, the total bank credit of scheduled commercial banks (business in India) at Rs. 3,585 crores were higher by  $16\cdot 8$  per cent higher than Rs. 3,069 crores, a year ago.

Total bank credit of different classes of scheduled commercial banks (total business) at the end of 1966, 1967 and 1968 is indicated in the table below:

(Rs. crores)

To be say		Total Bank Credit	Ratio of Bank credit to deposits
State Bank of India	1966	541	68.8
	1967	596	69.4
Subsidiaries of State	1968	755	79.5
Bank of India	1966	127	53 - 1
	1967	162	61.4
	1968	200	70-0
Other Indian scheduled			C. D. #8.1
banks	1966	1,580	68-2
	1967	1,735	67.8
	1968	1,909	64.8
Foreign scheduled banks	1966	301	80.1
	1967	336	83.4
	1968	384	88.3
Total scheduled banks	1966	2,549	68-6
	1967	2,828	69.2
	1968	3,249	70.3

Table II

ADVANCES OF 69 SCHEDULED COMMERCIAL
BANKS ACCORDING TO PURPOSE

			March	31, 1968
			Amount	Percentage
1.	Industry	 	2,067 · 47	67.5
2.	Commerce		587-67	19.2
3.	Financial	 	84.23	2.7
4.	Agriculture (a)	 	67.13	2.2
5.	Personal	 	113.37	3.7
6.	Others	 	144.49	4.7
	Total		3,064.36	100.0

<sup>(</sup>a) Includes plantations.

# INVESTMENTS

According to a survey conducted by the RBI total investments of scheduled commercial banks at Rs. 1,258 crores as on March 31, 1968 recorded a larger increase of Rs. 142 crores compared with Rs. 120 crores during the corresponding period of 1967. The investments worth Rs. 1,234 crores of Indian offices were held mostly in the government securities, which amounted to Rs. 1,009 crores. The share of government securities declined marginally by 1.9 per cent to 80.2 per cent.

(Rs. crores)

(Rs. crores)

		March	31, 1968
		Amount	Percentage
I.	Investments by offices in India (A + B + C)	12,34	98.1
	A. Indian Government securities	10,09	80.2
	B. Other domestic investments	2,22	17.7
	C. Others	3	0.2
11.	Investments by foreign offices of Indian banks	24	1.9
91	Total	12,58	100.0

# DEPOSITS WITH NON-BANKING COMPANIES (INCLUDING BRANCHES OF FOREIGN COMPANIES)

					End of M	arch 1966	End of March 1967		
					No. of companies	Amount Rs. crores	No. of companies	Amount Rs. crores	
	Hire purchase: Finance con	npanies	100	100	123(108)	14.4(8.7)	149/1940		
-	Other financial companies				270(155)		143(124)	28.3(25.3)	
	Non-financial companies				A STATE OF THE PARTY OF THE PAR	40.5(12.6)	582(328)	$91 \cdot 5(28 \cdot 5)$	
		Service.	••	• •	1,964(987)	228 · 5(65 · 7)	1,866(922)	310 - 7(63 - 6)	
1	Total				2,357(1,250)	283 · 4(87 · 0)	2,591(1,374)	430 · 5(116 · 9	

Figures in brackets relate to private limited companies, which are included in the figures outside the bracket.

# NATIONALISATION OF MAJOR INDIAN BANKS

The Government of India issued an ordinance on July 19, 1969 announcing its decision to take into public ownership and management of 14 major Indian scheduled commercial banks having an aggregate deposits of not less than Rs. 50 crores as on the last Friday of June, 1969. These banks are as follows: Central Bank, Punjab National Bank, Bank of India, Bank of Baroda, United Commercial Bank, United Bank, Allahabad Bank, Dena Bank, The Indian Bank, Canara Bank, Union Bank, Syndicate Bank, Bank of Maharashtra and the Indian Overseas Bank.

The Government of India introduced in the Parliament, the Banking Companies (Acquisition and Transfer of Undertakings) Bill on July 25, 1969 to replace the above ordinance. The Bill was passed by the Lok Sabha and Rajya Sabha on August 4, 1969 and August 8, 1969 respectively. The President gave his assent to the Bill on August 9, 1969.

A full bench of the Supreme Court declared on February 10, 1970, the Banking Companies (Acquisition and Transfer of Undertakings) Act as unconstitutional. It gave this verdict on the writ petition of Dr. R. C. Cooper and Shri T. M. Gurubaxani challenging the validity of the nationalisation. Three major points which weighed with the judgement are: (1) It makes hostile discrimination against the named banks in that it prohibits these banks from carrying on banking business, whereas other banks are permitted to carry on business, and even new banks may be formed which may be engaged in business; (2) It in reality restricts the named banks from carrying on business other than banking as defined in Sec. (B) of the Banking Regulations Act, 1949 and (3) The Act violates the guarantee of compensation under Act 31(2) in that it

\* The President gave his assent to the Bill on April 1, 1970.

provides for giving certain amounts determined according to principles which are not relevant in the determination of compensation of the undertaking of the named banks and by the method prescribed the amounts so declared cannot be regarded as compensation. The ten to one majority judgement was delivered by Mr. Justice J. C. Shah.

In the light of the above developments, Union Government renationalised the 14 banks taken over in July by an ordinance signed by the President of India. Under this ordinance compensation was fixed at Rs. 87-4 crores instead of Rs. 75 crores under the previous Act struck down by the Supreme Court. Under the new ordinance, the old banks are left free to do any business. On March 24, 1970, the Lok Sabha passed the Bill to replace the ordinance for regularising the nationalisation of the 14 major banks. The Bill\* received parliamentary approval by the Rajya Sabha on 26-3-1970.

The banking companies will now have the option of collecting compensation in cash in three annual instalments or in ten-year or 30-year securities carrying interest at 4½ per cent or 5½ per cent a year respectively. Compensation is to be paid to the companies. Provision has also been made for the immediate payment of 75 per cent of the paid-up capital of the companies as the first instalment of compensation. The compensation payable to each of the 14 banks is as follows (Figures in Rs. lakhs): Central Bank of India 1,750; Bank of India 1,470; Punjab National Bank 1,020; Bank of Baroda 840; United Commercial Bank 830; Canara Bank 360; United Bank 420; Dena Bank 360; Syndicate Bank 360; United Bank 310; Bank of Maharashtra 230 and Indian Overseas Bank 250.

# CAPITAL MARKET

THE gilt-edged market continued to maintain its uptrend during 1968-69 and equity prices staged a significant recovery. The capital issues activity, however, recorded a decline and consents granted for issue of shares and debentures were also substantially lower. The control over capital issues was further relaxed. The capital raised by non-Government companies was almost of the same magnitude as in the previous year. The magnitude of financial assistance sanctioned by the term-lending institutions rose substantially, the increase in financial assistance sanctioned to small-scale industries being particularly marked. In the sphere of company legislation the Companies (Amendment) Bill, 1968 as finally passed by Parliament was enacted as the Companies (Amendment) Act, 1969 in May 1969.

### THE GILT-EDGED MARKET

In the gilt-edged market, the uptrend noticed since the beginning of 1966-67 was continued during 1968-69. The Reserve Bank's All-India Index of Government and semi-Government securities (base: 1961-62 = 100) rose steadily from 97·1 at the end of March 1968 to 98·7 by end-March 1969 showing an increase of 1·6 per cent on top of a rise of 2·6 per cent last year. The bullish tone during the year was sustained by the easier monetary policy as reflected in the cut in the Bank rate effective March 2, 1968 and the comfortable resources position of commercial banks. The firmness in the market is also attributable to the Bank's open market operations which have helped to infuse a degree of confidence in the market and strengthen

the undertone of trading; over the year the operations resulted in net sales of Government securities.

The Central and State Governments completed their borrowing programmes for the year 1968-69. The Centre did it in two phases by issuing on May 11, 1968, the 51 per cent Loan, 1995 for Rs. 175 crores and on July 26, 1968, the 41 per cent Loan, 1975 for Rs. 135 crores. Both the loans were issued at par and were fully subscribed with total subscriptions amounting to Rs. 321 crores, of which conversion accounted for Rs. 184 crores and cash for Rs. 137 crores. Fifteen State Governments also issued 12-Year 53 per cent 1980 Loans for an aggregate amount of Rs. 116.50 crores at issue prices varying from Rs. 97.50 to Rs. 99.50 per cent between September 2 and September 7, 1968. The new State loans were over-subscribed; the total subscriptions retained amounted to Rs. 127.85 crores, of which Rs. 10.52 crores were in the form of conversion.

Loan-wise, price increases were noticed both in the Central and State Government securities. The Reserve Bank's index of Government of India securities increased from 97·4 at end-March 1968 to 98·7 by end-March 1969 and that of State Government securities went up from 96·2 to 98·8. In the Central list, the rise in prices was more marked in the medium long-dated securities. Among the short-dateds, the 3 per cent Loan, 1970-75 showed the largest gain of Rs. 2·10 at Rs. 98·00, other increases ranged between 15 p. in the case of the 4 per cent Loan, 1969 to 75 p. in the case of the 3½ per cent Loan, 1969. Among

the medium-shorts, the maximum gain of Rs.  $6\cdot50$  was recorded in the  $2\frac{9}{4}$  per cent Loan, 1976, which rose to Rs.  $88\cdot25$ . The  $3\frac{9}{4}$  per cent Loan, 1974, showed an increase of Rs.  $1\cdot70$  at Rs.  $97\cdot80$ . In the medium-longs, the largest gain of Rs.  $3\cdot80$  was noticed in the 4 per cent Loan, 1979 which rose to Rs.  $97\cdot05$ , whereas the 5 per cent Loan, 1982 showed the smallest gain of Rs.  $1\cdot05$  at Rs.  $101\cdot85$ . The long-dateds section noticed increases in all the issues except the  $5\frac{1}{2}$  per cent Loan, 1992 which showed a decline of 25 p. The rise in other issues ranged from 10 p. in the case of the 3 per cent Loan, 1986 or later to Rs.  $2\cdot25$  in the case of the 3 per cent Non-terminable Loan. Both the  $5\frac{1}{2}$  per cent Loan, 1995 and the  $4\frac{1}{4}$  per cent Loan 1975—new loans issued at par—also gained Re. 1 and 15 p. respectively.

# INDUSTRIAL SECURITIES MARKET

The equity prices recorded a gradual rise during the greater part of 1968-69 as against the decline observed in the preceding year. The recovery in share prices commenced since the end of February 1968 subsequent to concessions granted to the corporate sector in the Union Budget for 1968-69 to stimulate production and exports and reduction in the Bank Rate from 6 per cent to 5 per cent in early March 1968. Except for a short spell of easiness early in the year the recovery continued and towards the end of 1968-69 the stock exchanges were in an ebullient mood. The Reserve Bank's All-India Index of Variable Dividend Industrial Securities (Base: 1961-62 = 100) rose from 77.5 during the week ended March 30, 1968 to 87.9 during the week ended March 29, 1969, showing a net increase of 13·4 per cent as against a decline of 4·4 per cent recorded during 1967-68. The prices of fixed-interest bearing industrial securities - preference shares and debentures - were slightly higher during 1968-69 than in the previous year.

The uptrend in equity prices, interrupted between March 9, 1968 and April 13, 1968 due to rush for gold in the world's free markets and the consequent uncertainties regarding reserve currencies in the international financial markets, continued till the end of June 1968. In addition to the concessions granted to the corporate sector in the Union Budget for 1968-69 and the reduction in the Bank Rate, some of the other important factors which assisted the uptrend were (1) the Aid-India Consortium's appreciation of India's requirements of foreign aid, (ii) the announcement of the import policy for 1968-69 designed to encourage exports and production and (iii) a reduction of ½ per cent in the refinancing rates of I.D.B.I. from May 11, 1968. The Reserve Bank's index of equity prices rose from 77-5 to 81-0 between the weeks ended March 30 and June 29, 1968.

The gradual recovery in equity prices showed fluctuations within a narrow range during July-September 1968. The equity price index after declining to 80·4 during the week ended July 27, rose to 81·4 till August 31 and declined thereafter to 79·1 by September 28, 1968. Market sentiment was affected, among other things, by (i) the reports of less than expected increase in the steel prices, (ii) reports of damage to standing crops caused by droughts of floods in different parts of the country, (iii) disappointing reports about the working of certain leading companies, and (iv) the apprehensions of decline in production due to reduction in supply of power to industries in the Bombay-Poona region.

From October 1968 enwards the equity prices resumed their earlier uptrend and the index consistently moved up from 79.5 to a higher level of 89.8 between october 5, 1968 and March 8, 1969 and closed at 87.9 by March

60

29, 1969. The buoyancy in equity prices reflected the gradual revival of confidence, rising investment demand, price stability in commodity markets, rising industrial production and expectations of further improvement in the economy during 1969. The sentiment was also assisted by the Union Budget for 1969-70 which provided such incentives as reduction of export duties on jute goods and tea with a view to stimulating exports. inclusion of jute and cotton textile industries in the list of priority industries for the purpose of development rebate and raising of income-tax exemption limit in respect of dividend income from Rs. 500 to Rs. 1,000. The other encouraging factors were, (a) expectations of a high level of agricultural production, (b) reports of rising exports, (c) continuation of the liberalised credit policy for the priority sectors by the Reserve Bank of India, (d) announcement by the International Development Association in January 1969 of \$125 million credit to India for imports of components and materials for machinery, and (e) announcement in February 1969 of further relaxation of curbs on the issue of capital by companies.

Among the stock exchanges, according to the regional equity index, Bombay Stock Exchange recorded the highest gains (16·0 per cent), followed by Calcutta (12·5 per cent), Ahmedabad (10·9 per cent), Madras (7·3 per cent) and Delhi (6·8 per cent) during 1968-69.

The improvement in equity prices was shared by the major sub-groups. The maximum increase was registered by the sub-group 'edible and vegetable oils' which rose by 48.9 per cent following Government's permission to raise the prices of their products to compensate for the rising prices of oilseeds. Equity prices of 'rubber and rubber products' also climbed up by 41.0 per cent. Paper shares evoked interest after the announcement of decontrol of paper prices in May 1968 and recorded an increase of 38.7 per cent. Other sub-groups which showed substantial increases were 'other mining' (37.6 per cent), 'shipping and other transport' (33.6 per cent), 'basic industrial chemicals' (27.7 per cent), 'other chemicals' (28.6 per cent), and 'sugar' (21.5 per cent). Insurance shares also recorded a notable rise (24.5 per cent). The sub-groups machinery other than 'transport and electrical' and 'coal' which had declined substantially in the last year also rose by 14.8 per cent and 14.4 per cent, respectively. Equities of 'banks', 'cotton textiles' and 'jute textiles' were moderately higher.

A few sub-groups, however, registered small declines during 1968-69. 'Foundries and engineering workshops' dropped by 5·3 per cent. In the plantations group, coffee plantations declined by 4·5 per cent and tea plantations by 2·8 per cent.

As regards fixed interest-yielding industrial securities both debentures and preference shares recorded increases in contrast to the easiness noticed in the year 1967-68. The All-India Index of debentures (Base: 1961-62=100) rose by 1·7 per cent from  $91\cdot7$  at the end of March 1968 to  $93\cdot3$  at the end of March 1969. The All-India Index for preference shares registered an increase of  $1\cdot2$  per cent from  $85\cdot8$  at the close of March 1968 to  $86\cdot8$  at the close of March 1969.

During the year, the average yield (gross) on the variable dividend industrial securities declined from  $8\cdot22$  per cent during 1967-68 to  $6\cdot81$  per cent during 1968-69 and that on debentures from  $8\cdot37$  per cent to  $7\cdot96$  per cent; but on preference shares it increased fractionally from  $9\cdot85$  per cent to  $9\cdot97$  per cent probably due to rise in the rate of dividend offered on the preference shares from  $9\cdot3$  per cent to  $9\cdot5$  per cent.

From December 1946, the Reserve Bank of India started constructing indices of security prices. These indices (All-India) reveal the following trend:—

				& Securities		strial rities			usts	Generation	other	. 81
Average of Weeks				Government & Government Se	Fixed Dividend	Fixed Dividend Variable Dividend		Insurance	Investment Trusts	Electricity Ger and Supply	Shipping and Transport	Tea Plantations
		are vel	William La grand	1	2	3	4	5	6	7	8	9
Base: 196	31-62 =	= 100										
1965–66 1966–67 1967–68 1968–69				94·6 94·3 95·5 98·3	94·4 90·0 87·1 86·1	76·7 80·2 76·7 81·7	96·4 96·3 89·8 90·7	116·3 136·2 131·9 150·0	80·2 85·9 85·3 85·6	107.6 104.9 104.7 109.5	95·8 115·3 136·1 190·1	79·5 80·8 79·8 80·6

	Average Week		Cotton Textiles	Jute Mills	Coal	Mining	Iron and Steel	Sugar and Breweries	Chemicals	Paper	Cement
			10	11	12	13	14	15	16	17	18
Base: 196 1965-66 1966-67 1967-68 1968-69	31-62 = 	= 100	69·8 66·5 61·5 61·2	70·6 61·8 48·6 47·6	71·4 65·8 53·2 56·0	49·6 46·4 37·5 41·4	95·9 105·3 106·3 107·2	80·0 77·7 74·1 89·5	59·2 67·0 64·4 72·9	74·8 77·9 76·0 87·3	85·6 98·0 101·4 94·2

### CAPITAL ISSUES

New capital issues activity both through prospectus and rights slackened during April 1968-March 1969 in contrast to the modest improvement recorded in the previous year. The decline was both in number and value of equity issues. The preference and debenture issues were also at a lower level during 1968-69. The prospectus issues, though lower in amount, accounted for slightly higher percentage share in the total capital issues in 1968-69 than in the previous year. The share of equity, however, was lower while those of preference and debenture issues were higher. The amount of capital raised by non-Government companies in 1968 was almost at the same level as in 1967.

The amount offered to the public for subscription through the prospectus issues recorded a small decline from Rs. 43·0 crores in 1967-68 to Rs. 39·8 crores in 1968-69 but its share in the prospectus issues rose substantially from 64·6 per cent to 89·5 per cent, while that of foreign participation declined steeply from 17·9 per cent to 2·6 per cent. The share of promoters also decreased from 8·4 per cent in the preceding year to 6·0 per cent in 1968-69. The rate of dividend offered on the majority of preference shares was in the range of 9·3 per cent to 9·5 per cent,

although four companies offered 10 per cent dividend. The rate of interest offered on debentures was maintained at 7.75 per cent except one where it was 9 per cent.

Public response to capital issues during 1968 as observed from replies to questionnaires sent to individual companies continued to be selective. According to data available in respect of 45 issues, 15 were over-subscribed, 4 fully subscribed and the remaining 26 under-subscribed. The amount devolving on the underwriters was 39 per cent of the amount underwritten almost at the same level as in the previous year. The promoters continued to rely heavily on financial institutions for underwriting support for their public issues.

Consents/No. objections granted by the Controller of Capital Issues to non-Government companies during 1968 for the issue of shares (other than bonus) and debentures at Rs. 87·4 crores were substantially lower than the amount consented during the previous year (Rs. 150·6 crores). Consents for initial issues amounted to Rs. 36·7 crores and further issues by existing companies Rs. 50·7 crores. Consents were granted to non-Government companies for issue of bonus shares worth Rs. 33·6 crores as against Rs. 47·8 crores in 1967.

Total capital (excluding bonus and miscellaneous issues) raised by non-Government companies during 1968 amounted to Rs. 84·3 crores as against Rs. 84·8 crores in 1967. The capital raised through equities declined from Rs. 55·6 crores in 1967 to Rs. 46·3 crores in 1968, whereas capital raised through preference shares and debentures increased

from Rs. 7·6 crores and Rs. 21·6 crores to Rs. 9·9 crores and Rs. 28·1 crores, respectively. The capitalisation through bonus shares registered a sharp decline from Rs. 84·1 crores to Rs. 27·9 crores. Miscellaneous issues, on the other hand, increased from Rs. 2·7 crores to Rs. 5·8 crores (Table I).

Table I: Capital Consents and Capital Raised by Non-Government Companies

(Rs. crores)

				CAPITAL CON- OBJECTION CEI			CAPITAL RAISED				
	Year		Shares (other than bonus) and debentures*		Bonus shares	Shares (other than bonus) and debentures	Bonus shares	Miscellaneous loans, etc.	Total (3 + 4 + 5)		
			in this	1	2	3	4	5	6		
1967			V 300	150-6	47.8	84.8	84.1	2.7	171.6		
1968				87.4	33.6	84.3	27.9	5.8	118.0		

<sup>\*</sup> Excluding private limited companies, banks, insurance companies and provident societies incorporated as companies.

Note: Data for 1968 are provisional.

# RELAXATION OF CONTROL OVER CAPITAL ISSUES

The Government announced a major relaxation in capital issues control in February 1969 through the Capital Issues (Exemption) Order, 1969. According to the new Exemption Order, public limited companies issuing capital exceeding Rs. 25 lakhs during a period of twelve months would be required to file a statement of their capital issue proposals with the Controller of Capital Issues at least thirty days before the date of the proposed offer of capital. Such proposals would be exempted from the Capital Issues Control if they conform to certain stipulated financial criteria regarding debt-equity ratio, the equity-preference ratio, issue of capital at par, issue of preference shares and debentures carrying rates of dividend and interest, respectively, not exceeding certain notified limits. These limits are 9·5 per cent dividend for preference shares and 7·75 per cent interest for debentures. These

may be varied from time to time by notifications. For the facility of subscribers to the share capital of a company, a new criterion has been added to the effect that the subscription to the shares, if phased in calls, should be got fully paid up within a period of five years from the date of the offer.

Private limited companies, banking and insurance companies and Government companies except where an offer of shares for subscription by the public is involved, and public limited companies so long as they issue capital not exceeding Rs. 25 lakhs during a period of twelve months have been exempted from the Capital Issues Control earlier.

Under the Capital Issues (Exemption) Order, 1969, Government have retained control over bonus issues of all companies without any lower exemption limit and issues of capital at a premium by public limited companies.

# Control of Capital Issue

(Non-Government Companies only)

(Rupees in crores)

YEAR	APPLICATIONS			CONSENTS									
				Total		Initial		Further Others		Further Debenture		Further Bonus	
		No. of Com- panies	Amount	No. of Com- panies	Amount	No. of Com- panies	Amount	No. of Com- panies	Amount	No. of Com- panies	Amount	No. of Com- panies	Amount
1966	11.	796	278-70	785	277.54	28	24.84	46	23 · 13	14	18.06	658	147.00
1967		389	104 - 17	379	102.99	5	17.86	25	24.26	2	8-10	341	47.85
1968		225	83.48	217	80.63	6	27.65	19	10.43	1		186	33.56

# New Company Registrations in 1967-68 and 1968-69

There were 1,115 new companies registered in the country during 1968-69 against 1,044 in 1967-68.

# Statewise Registrations

	196	7-68	196	8-69
States	Public	Private	Public	Private
Andhra Pradesh	41	3	59	5
Assam, Manipur &				
Tripura	13	1	7	-
Bihar	20	3	15	2
Gujarat	54	3	59	4
Maharashtra	232	17	251	11
Kerala	24	2	40	6
Madhya Pradesh	13		17	2
Mysore	45	7	61	4
Orissa	12	1	9	100
Punjab, Haryana &	A MARKET			
Himachal Pradesh	51	2	67	2
Rajasthan	24		14	5
Tamil Nadu & Pondi-			100	
cherry	86	9	94	4
Uttar Pradesh	35	2	34	3
West Bengal	202	11	185	15
	113	9	123	3
Delhi	7	2	7	I I STATE
Goa		100/100/	A proper	11/11/11
TOTAL	972	72	1.048	67

Note: Figures relate only to applications disposed of during the period and not to applications actually received during the period.

# FINANCE CORPORATIONS

Under the Industrial Finance Corporation Act, a Corporation was established on July 1,1948 to provide medium and long-term finance to public limited companies and co-operative societies registered in India, including the acceding States, and engaged in the manufacture or processing of goods or in mining or in the generation or distribution of electricity or any other form of power.

Seventeen States have established State Financial Corporations — Punjab, Haryana, Himachal Pradesh, Maharashtra, West Bengal, Kerala, U.P., Rajasthan, Assam, Bihar, Madhya Pradesh, Andhra, Orissa, Mysore, Jammu and Kashmir, Tamil Nadu and Gujarat. In addition, Delhi also has a financial corporation.

Besides the State Financial Corporations, there are other State Corporations and All India Corporations. For details see under the articles "State Corporations" and "All India Corporations".

# INDUSTRIAL STRUCTURE AND POLICY

THE qualitative change in the direction of industrialisation after the advent of planning is evident from the following table:

# Value added in manufacturing industry

(Rs. Millions at 1960-61 prices)

Industries	1950-51	1965-66	Percentage increase
Consumer goods	2,607	4,876	87%
Intermediate goods Machinery Others	895 309 31	6,202 3,159 103	593 % 922 % 232 %
	3,842	14,340	

These aggregates, besides indicating the large strides taken since the beginning of 1950 also underline the structural changes that have occurred during the period. While the percentage increase in value added in respect of consumer goods was only 87 per cent, it was as high as 593 per cent for intermediate goods and 922 per cent for machinery items. The growth sectors have expanded much more rapidly than the traditional industries.

Industrial production nearly trebled over the three Plan periods. Production of finished steel went up from 1 million tonnes to 4 million tonnes, aluminium from 4,000 tonnes to 96,300 tonnes, coal from 33 million tonnes to 68·5 million tonnes, cement from 2·7 to 11·5 million tonnes, petroleum products from 0·2 million tonnes to 14·4 million tonnes, nitrogenous fertilizers from 9,000 tonnes to 3,67,000 tonnes, machine tools from Rs. 0·3 crores to Rs. 23·5 crores and automobiles from 16,500 to 67,000 between 1950-51 and 1967-68.

Figures of industrial production in respect of certain key industries in 1967-68 as compared to 1950-51 and their average annual growth rate during these seventeen years are:

# Production in key industries

					The second secon		the second second second second second	
Industr	у		9. 10.		Unit	1950-51	1967-68	Compound annual rate of growth (per cent)
Finished steel	The same		43 107	10 10 10 1	'000 tonnes	1,040	4,150	8.5
Carried steel		- 1 (A)	1 30	20 10 Sull	A Section Contraction		40	-
Special steel				N CONTRACTOR	22 ml singly	4.0	96.3	20.6
Aluminium ingots				0 10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.5	116.6	19.7
Diesel engines (Statistics)					'000 nos.		67.0	8.6
Automobiles					39	16.5	The state of the s	
Machine tools					Rs. mill.	3.0	235·0 above	30
Cotton to the cools.						nil	150.0	-
Cotton textile machinery			office!	1,720	Market Market M	nil	105.8	E By store
Sugar machinery			0 10000	100	99	The state of the s		

# Production in key industries—(Contd.)

Industry				Unit	1950-51	1967-68	Compound annual rate of growth (per cent)	
Cement machinery		200	171600	404.760	,,	nil	65.8	
Paper and pulp machinery		The No.	1000	400	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	nil	23.5	
Bieycles (organised sector)			M.	THE REAL PROPERTY.	'000 nos.	99	1,707	18-2
Sulphurie Acid		See to	TELEPIS .	891.4	'000 tonnes	101	913	13.8
Cement			12.27	CARL THE	mill. tonnes	2.7	11.5	8.9
Paper & paper board		3 1 5 1311	Alexander		'000 tonnes	116	629	10.5
Nitrogenous fertilizers (in t	terms	of N)	HOW W	- J. N. S. J. L.	,,	9	366.8	24.4
Caustic Soda	-					12	274.2	20.3
Coal	OL STATE			tym i y	mill, tonnes	32.8	68.5	4.4
Iron ore			News !		mill. tonnes	3.0	26.0@	13.6
Petroleum products (in tern					,,	. 0.2	14·4 above	30
Cotton fabrics (total)				P,	mill. metres	4,215	7.518	3.5
Jute manufacture		1 1 1 1 1 1			'000 tonnes	837	1,156	2.1

@ Figures relate to calendar year.

The diversification in industrial structure in these years is also reflected in the employment position in various sectors. For example, while the labour employed in traditional industries like textiles and sugar (organised sector) increased from 1·12 to 1·26 million and 95,000 to 131,000 i.e., by 13 per cent and 38 per cent respectively in 1966 as compared to 1951, the percentage increase in labour force in newer fields like basic metal industry and machinery (other than electric) industry was of the order of 159 per cent and 222 per cent respectively. The employment increased from 102,000 to 264,000 in basic metal industry and from 107,000 to 345,000 in machinery industry (other than electric). The increase in labour force in electric machinery industry was as high as 400 per cent for the corresponding period.

Industrial licensing has also played a useful role in the remarkable growth of small-scale industries over the last decade. On the basis of the data available regarding the number of small-scale industries registered with the State Directorates of Industries, the number of small-scale units increased from about 35,000 to over one lakh numbers between 1961 and 1965 and further increased to 1,31,422 by 1968.

This growth in small-scale industries has been achieved through a variety of measures. In certain industries which are particularly suitable for development in the small-scale sector, a policy of reservation or common programme was adopted. In addition, other positive support by way of price preference in the purchase of products from small-scale industries, fiscal incentives and technical guidance and marketing assistance was also provided. This policy has generally had a beneficial effect on the wide-spread development of small-scale industries. In several small-scale industries, competitive ability has improved to a point where they are in a position to stand on their own without special reservations in their favour. The main thrust of policy is to make them increasingly viable and technologically efficient so that they become an integral part of the total industrial structure, capable of making their contribution on their own strength.

It should be, however, emphasised that throughout this period (1951–1968), growth of the large-scale (factory) sector has been faster than that of the small-scale (non-factory) sector. As a result, the share of the large-scale sector in the combined manufacturing (in terms of income generated) has been rising more or less steadily. In 1948-49, the large-scale sector accounted for about 40 per cent of the total manufacturing sector: the small-scale sector accounted for the other 60 per cent. By 1966-

67, the large-scale sector accounted for about 70 per cent of the manufacturing sector; the share of the small-scale sector shrank to 30 per cent. This sharp reversal of the relative shares of the two sectors marks an important qualitative change in our industrial scene.

Even within the large-scale industry there have been significant differential growth rates. While traditional industries like cotton textiles, jute textiles, sugar, leather industry and beverages have developed at less than average pace, new industries like engineering and chemicals have shot up at great speed. Some of industry groups which have recorded spectacular increases in output are: chemicals (4-fold), metal products (6-fold), electricity generation (also 6-fold), electrical machinery and transport equipment (both 9-fold), non-electrical machinery (13-fold) and petroleum products (21-fold).

It is usual to divide the various industries under three categories: (1) consumer goods, (2) intermediate goods, and (3) machinery. In 1950-51, the machinery group accounted for only 8 per cent of the value added through manufacturing. The output (in real terms) in this group increased more than ten-fold during the subsequent 15 year period, so that the share of the machinery group in the total output rose from 8 per cent to 22 per cent. Similarly, the share of intermediate goods has also gone up from 23 per cent to 43 per cent. Consequently, the share of consumer goods has halved from 68 per cent to 34 per cent. All this indicates an increasing sophistication of India's industrial structure.

The recovery in production in the large-scale industrial sector noticed since the first quarter of 1968 continued throughout the year. For the calendar year 1968 the overall growth rate was 6·3 per cent. All the major industrial groups participated in the recovery. The improvement was more marked in the case of basic industries and capital goods industries.

Intermediate goods industries and consumer goods industries also registered increases.

Overall, industries accounting for about three-fourths of the weightage in the General Index registered increases in output. Important among these industries were cotton spinning, motor vehicles, iron and steel, mining and quarrying, sugar, and paper and paper products. There were a few industries which were by and large unaffected by the recession and which continued to register high growth rates. Among these, mention may be made of non-ferrous metals, fertilizers, electricity generation and consumer durables like radio receivers, motor cycles and bicycles.

Among the industries which continued to lag behind, the important ones were manufacture of mining, earthmoving and construction machinery and rail-road equipment, heavy electrical engineering including electrical motors and furnaces and electrical cables and wires.

The overall improvement in industrial production was brought about by larger availability of raw materials for agriculture-based industries, increased demand for consumer goods including some consumer durables following large increases in agricultural income, sharp rise in export demand for certain engineering items, and liberal credit facilities from banking and financial institutions. The upward revision of the prices of industrial products such as coal, steel and coment was followed by a step-up in their production. The import liberalisation in favour of the priority industries, including export industries, in respect of requirements of raw materials, components and spares helped these industries to maintain high levels of production.

The increase in the level of output was reflected in better utilisation of capacity particularly in intermediate and consumer goods industries. The stock-output ratio in these industries showed a significant fall. On the other hand, despite some recovery in basic and capital goods industries, the capacity in a number of industries in these groups continued to be underutilised.

Table 4—Utilisation of Capacity in Selected Industries
(Percentages)

Industry	1967	1968
Finished steel	66	66
Aluminium (Sheets & circles)	23	57
Copper and brass sheets and circles	21	30
Nitrogenous fertilizers (Am- monium Sulphate 'N' Con-		
tent)	52	57
Heavy structurals	23	15*
Steel pipes and tubes	54	61
Steel castings	51	37
Railway wagons	44	

<sup>\*</sup> Provisional.

Table below taken from the Annual Survey of Industries 1966 shows certain important characteristics in respect of India as a whole for the years 1965 and 1966 and also the percentage change in these characteristics in 1966 over 1965.

The data relate to the factories registered under the Factories Act, 1948 and which employed 50 or more workers with the aid of power or 100 or more workers without the aid of power on any day during the reference year, the sector known as the Census Sector.

	1965	1966	Percentage change over 1965
1. Number of factories	13,424	12,300	(-) 8.38
2. Number of factories reporting	13,155	11,933	(-) 9.29
3. Productive capital (Rs. crores) 4. Employment (7000)	6,446 3,986	7,548 3,934	17·07 (-) 1·31
5. Salaries, wages and benefits, total (Rs. crores)	903	987	9.30

<sup>\*</sup> Now Tamil Nadu.

	1965	1966	Percentage change over 1965
6. Ex-factory value of output (Rs. crores)	6,502	7,213	10.93
7. Value at factory of input including de- preciation (Rs.		E 109	12.67
crores) 8. Value added by manu		5,403	12.01
facture (Rs. crores)	1,707	1,810	6.03

It will be seen from the above table that the number of factories in the Census Sector decreased in 1966, compared to 1965, by 8-9 per cent. This was due to revision of frame used for ASI-1966 Census Sector.

Census factories selected in the previous round and found not fulfilling the two-fold criterion of being a census factory in the ASI-63 and ASI-64 as per employment data reported in the previous year's return as also as per list of factories for the year ending 1965 or as per ASI-65 return were excluded from the Census Sector.

The employment showed a small decline of 1.3 per cent. Other characteristics, however, showed a rise in the current prices, the productive capital by about 17 per cent, the ex-factory value of output by 11 per cent and the value added by manufacture by about 6 per cent.

Among the industry groups — Spinning, Weaving and Finishing of Textiles occupied the pride of place. In the year 1966 this group covered 10 per cent of the reporting units, accounted for about 9 per cent of the productive capital, 29 per cent of the employment, 20 per cent of the value of output and 22 per cent of the total value added. Approximately a similar position obtained in the preceding years, in so far as this particular group is concerned.

The value added by manufacture is a measure of the contribution of the manufacturing industries as a whole to National Income. Taking this as an index, the order of importance of the more important industry groups for the year 1966 is as follows:—I. Spinning, Weaving and Finishing of Textiles; 2. Electric light and Power and Gas Manufacture and Distribution; 3. Iron and Steel, Basic Industries; 4. Machinery except Electrical; 5. Electrical Machinery; 6. Miscellaneous Chemical Products; 7. Miscellaneous Food Preparations; 8. Manufacture of motor vehicles.

The States of Maharashtra, West Bengal, Madras,\* Gujarat, Bihar and Uttar Pradesh were the most industrialised in the country. In the year 1966 these six States together accounted for 64 per cent of the census factories reporting data, 66 per cent of the productive capital employed, 71 per cent of the employment, 75 per cent of the value of output and 75 per cent of the value added by manufacture. The position in 1965 was almost similar so far as these States are concerned. In 1965 they accounted for 63 per cent of the reporting factories, 66 per cent of productive capital, 71 per cent of employment, 75 per cent of the value of output and 77 per cent of the value added by manufacture.

Seventeen States and Territories, namely, Andhra Pradesh, Assam, Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore, Orissa, Punjab, Rajasthan, Andaman and Nicobar, Delhi, Himachal Pradesh, Tripura, Pondicherry, Goa, Haryana and Chandigarh accounted for about 36 per cent of the reporting units in 1966, 34 per cent of the productive capital employed, 29 per cent of the total employment, 25 per cent of the value of output and 25 per cent of the value added by manufacture.

The Table 'A' below gives the comparative picture of the two sectors in manufacturing industry—Census Sector and Sample Sector between 1963 and 1964 the latest years for which data are available in respect of capital, employment and output.

		1963		1964			
	Census	Sample sector	All factories	Census sector	Sample sector	All factories	
1. Number of registered factories	10,348	35,663	46,011	12,223	34,320	46,543	
2. Fixed Capital (Rs. crores)	2,997.12	164.13	3,161.25	3,797 - 29	164.57	3,961 · 86	
3. Persons Employed ('000)	3,448	753	4,201	3,798	731	4,529	
4. Gross Output (Rs. crores) 5. Value added by Manufacture (Rs.	4,798.84	1,011.92	5,810.76	5,626 · 32	1,107.31	6,733.63	
crores)	1,295.06	165.29	1,460.35	1,502.81	170.08	1,672.89	

Table 'B' indicates some of the structural characteristics in the two years 1963 and 1964.

					1963		1964		
				Tarice.	Census sector	Sample sector	Census sector	Sample sector	
1.	Employment per factory (Number)	700	1	San I	342	21	318	21	
2.	Output per factory (Rs. '000)				4.754 · 2	283.7	4.709.0	322.6	
3.	Value added per factory (Rs. '000)	DOM		1 300	1,283.0	46.3	1,257.8	49.6	
1.	Value added per person employed (in Rs.)				3,756	200	3,957	_	
5.	Wages, salaries per person employed (in Rs.)	C.V.			2,035	ACATION.	2,183		
6.	Percentage share of wages, salaries in total va	lue ado	led		54.2	_	55.2	_	

# THE INDUSTRIAL LICENSING POLICY INQUIRY COMMITTEE

This Committee which was set up to examine how the industrial licensing system has operated, submitted its report during the year 1969. It made many important recommendations, some of them of a controversial nature.

The Committee's conclusion was that the licensing system must continue but in a much more rationalised and purposeful manner. Positive licensing would be principally confined to strategic, basic, and core industrial sectors for which, the committee emphasises, it was essential that detailed industry plans should be prepared. Unless this was done, licensing cannot but be ad hoc and arbitrary.

The committee also recommended a greater and purposeful use of bans and reservations. Industries, which can and should be developed mainly in the small and medium sectors should be reserved for these and no further capacity in these industries should be permitted to be created in the large-scale sector. Similarly, industries which produced less essential consumer goods and whose production may make large drafts on scarce resources should be similarly banned and no further capacity should be permitted to be created. The committee preferred the use of bans to limit licensing in such areas so that ad hoc and arbitrary licensing could be avoided. It also recommended that bans should be imposed for longer periods and not be subject to six-monthly reviews as at present. In these areas where capacities would not be further created, the committee specifically pointed out the necessity of using fiscal devices to ensure that undue profits are not made by those who are largely established in those industries.

As regards the area that was neither covered by the detailed industry plans nor by bans and reservations, the committee recommended the use of licensing only for

the limited purpose of preventing development of industry in these areas by the larger industrial houses (whose assets already exceed Rs. 35 crores). Otherwise, licences should be freely granted in this area and it should be left to the operation of the market forces combined with fiscal and monetary measures to ensure that this area develops as required within the broad context of the national Plan.

In addition to the limited use of licensing to prevent further concentration of economic power, another major recommendation of the committee in the same direction was regarding the development of the 'joint sector'. The committee pointed out that in a number of crucial areas, funds were being provided in substantial proportions by public financial institutions, and sometimes directly by the Government. In spite of this, the Government had permitted the industries to be managed entirely as if the money required was provided by the private shareholders and the management. In most cases, even though the LIC together with other institutions was a very large shareholder, the shareholding rights were not utilised for participation in management.

The committee recommended that this idea of non-interference in management should be firmly set aside. The whole or part of the assistance provided through loans or debentures should be convertible into equity at the option of the assisting institution and the Government must participate in the management of industries financed by it. The committee recommended this approach so as to prevent the building up of private industrial empires on the basis of public money and at the same time ensure that important projects do not suffer for want of finance merely on the ground that they were initiated by a private sector concern. This approach was also expected to ensure that important concerns were so managed as to subserve the public interest.

Early in 1970, the Government announced its decision on the Licensing Policy Inquiry Committee's report.

In the course of a Press Note, the Government said: It accepted the recommendation of the Committee that there should be a list of 'core' industries consisting of basic, critical and strategic industries. Detailed industry plans will be prepared for these industries and essential inputs made available on a priority basis. Care will be taken to ensure that an adequate proportion of foreign exchange is kept apart for 'non-core' industries also. A list of 'core' industries has been drawn up by the Planning Commission in consultation with the economic ministries in the light of the production gaps that have to be closed in the course of the Fourth Plan. This list is given below:

I. Agricultural Inputs: (1) Fertilisers—nitrogenous and phosphatic; (2) pesticides (basic chemicals only); (3) tractors and power tillers; and (4) rock phosphate and pyrites. II. Iron and Steel: (1) iron ore, (2) pig iron and steel; and (3) alloy and special steels. III. Non ferrous Metals. IV. Petroleum: (1) Oil exploration and production; (2) petroleum refining; (3) selected petro-chemicals—integrated petro-chemical complexes, D.M.T., caprolactum: acrylonitrile and synthetic rubber. V. Coking Coal. VI. Heavy Industrial Machinery (to be specified). VII. Ship-building and Dredgers. VIII. Newsprint. IX. Electronics selected components, testing and control equipment, wireless and micro-wave equipment.

Such of the industries in the 'core' list as are included in Schedule A of the Industrial Policy Resolution, 1956 (as amended from time to time) will continue to be reserved for the public sector. In addition to the 'core' sector, all new investment propositions of over Rs. 5 crores shall be deemed to be in the 'heavy investment' Sector. Except for industries reserved for the public sector under the Industrial Policy Resolution, 1956, (as amended from time to time), undertakings belonging to the larger Industrial Houses, as defined in the report of the Industrial Licensing Policy Inquiry Committee, together with foreign concerns and subsidiaries or branches of foreign companies, would be expected, along with other applicants, to participate in and contribute to the establishment of industries in the 'core' and 'heavy investment' sectors, leaving the opportunities in the remaining sectors primarily to other classes of entrepreneurs.

The 'joint sector' concept, suggested in the ILPIC report, has been accepted in principle. It will be Government's endeavour to apply the concept in the case of major projects taken up by private enterprise groups in the two sectors referred to above, as may be appropriate. In the 'middle' sector, involving investments ranging from Rs. 1 crore to Rs. 5 crores, licence applications of parties other than undertakings belonging to the larger Industrial Houses shall be given special consideration and shall be issued liberally, except where foreign exchange implications necessitate careful scrutiny. Licence applications from undertakings belonging to or controlled by the larger Industrial Groups and foreign branches/subsidiaries shall be considered from normal expansion, where such expansion is necessary to develop to a minimum economic level which would ensure greater cost efficiency. The provisions of the Monopolies and Restrictive Trade Practices Act will be taken into account.

Small-Scale Sector: The existing policy of reservation for the small-scale sector (involving investments in machinery and equipment up to Rs. 7.5 lakks) will be continued and the area of such reservation will be extended, wherever production in this sector can be expected to grow to meet demand adequately. Industries which are proposed to be added to the ones already reserved exclusively for development in the small-scale sector have been listed by the Planning Commission in consultation with the Ministry of Industrial Development as follows:

Steel furniture; cycle tyres and tubes; mechanical toys; aluminium utensils; fountain pens and ball-point pens; electric horns; hydraulic jacks below 30 tonnes capacity and tooth paste.

Exemption Limit: The exemption limit from licensing provisions, including licensing of new undertakings and substantial expansion of existing units, will be raised from Rs. 25 lakhs to Rs. 1 crore (by way of fixed assets in land, buildings and machinery) in the case of undertakings or categories of undertakings which have existing assets of less than Rs. 5 crores and which (i) do not belong to the larger Industrial House, as classified by the Industrial Licensing Policy Inquiry Committee; (ii) do not require more than Rs. 10 lakhs or more than 10 per cent by way of foreign exchange for import of machinery and equipment, whichever is less, and do not also require foreign exchange, except marginally, for import of raw materials, components and the like and (iii) are not included in the category of 'dominant undertakings' as defined in the Monopolies Act. There will be no commitment on the part of the Government to provide foreign exchange for maintenance and raw material imports for units which benefit from the exemption from licensing.

Public Financial Institutions: With the acceptance of the 'joint-sector' concept in principle, it will be ensured in future that there is a greater degree of participation in management, particularly at policy levels, in the case of major projects involving substantial assistance from public financial institutions. Public financial institutions will also, as part of their financial assistance arrangements, exercise option for converting loans given and debentures issued in future, either wholly or partly, into equity within a specific period of time. As for loans and debentures given in the past, the financial institutions concerned would have discretion to negotiate conversion in case of default. The Department of Banking will be issuing necessary instructions in this regard.

Role of the Public Sector: Alongside of the measures taken to reduce the concentration of economic power, the scope of public sector is proposed to be substantially expanded beyond the fields included in the Industrial Policy Resolution of 1956. Various production ministries will examine the possibility of taking up short gestation projects yielding quick returns so as to cover, to the extent feasible, major production gaps likely to develop in various industrial sectors in the next few years. In order to meet the resources requirements for an expanded public sector programme, it has been decided in principle that the public financial institutions should be authorised to consider applications for financial assistance for projects to be set up in the public sector on the same terms as applications from private parties. The Department of Banking would issue necessary instructions in this regard after detailed examination.

# THE CO-OPERATIVE MOVEMENT (1967-68)\*

# DETAILS RELATE TO THE YEAR 1967-68

THE number of all types of co-operative banks and credit societies declined by 6,896 during 1967-68 and stood at 193,428 as on June 30, 1968. The total membership of all the credit societies as on June 30, 1968 was about 40,253,000. Their aggregate working capital increased from Rs. 2,424-4 crores as on June 30, 1967 to Rs. 2,780-7 crores as on June 30, 1968 representing an increase of Rs. 356-3 crores. The owned resources of the institutions rose by Rs. 75-8 crores during the period under report and amounted to Rs. 548-0 crores as on June 30, 1968. The borrowed funds representing deposits, debentures and borrowing from the higher financing agencies, stood at Rs. 2,232-9 crores on June 30, 1968.

# STATE CO-OPERATIVE BANKS

There were 25 state co-perative banks with a total membership of 12,977 banks and societies and 8,409 individuals as on June 30, 1968. The details of their working capital in crores of rupees as on June 30, 1968 are as follows (figures in brackets relate to June 30, 1967): Owned funds 64·96 (55·64); deposits 179·60 (147·38); borrowings: Government 20·24 (22·68); Reserve Bank 166·55 (172·99); other sources 12·29 (4·25); working capital 443·64 (402·95). Loans and advances (representing loans made, cash credit and overdraft limits sanctioned and bills discounted) increased from Rs. 450·8 crores during 1966-67 to Rs. 539·8 crores.

#### CENTRAL CO-OPERATIVE BANKS

As on June 30, 1968 there were 344 central co-operative banks with a membership of 355,000. The working capital of these banks increased during the year by Rs. 67·7 crores to Rs. 70·6 crores. The details of the working capital in crores of rupees are as follows (figures in brackets relate to June 30 1967.): Owned funds 135·5 (115·6); deposits 300·6 (259·3); borrowings 269·9 (263·3); Working Capital 706·0 (638·3).

The loans and advances of the central banks rose during the year by Rs. 100 crores i.e. from Rs. 625·4 crores in 1966-67 to Rs. 726·9 erores in 1967-68. The loans outstanding as on June 30, 1968 stood at Rs. 549·9 crores representing an increase of Rs. 50·6 crores over the figure for 1966-67. As on June 30, 1968 the total overdues stood at Rs. 135·8 crores constituting 24·7 per cent of the loans outstanding.

## AGRICULTURAL CREDIT SOCIETIES

The number of primary agricultural credit societies decreased further by 6,931 and stood at 171,804 as on June 30,1968. As against 28,074,000 members of all the societies (active and dormant) as at the end of the year, the number of members who were borrowing during 1967-68 was 10,791,000 or 38 per cent of the total membership.

The working capital of the societies increased from Rs. 625·2 crores as on June 30, 1967 to Rs. 709·2 crores as on June 30, 1968. Their owned funds increased by Rs. 24·7 crores and deposits by Rs. 8 crores. Loans issued during the year amounted to Rs. 428·2 crores showing an increase of Rs. 63·0 crores over the 1966-67 figure. The overdues have risen from Rs. 160·2 crores as on June 30, 1967 to Rs. 171·0 crores as on June 30, 1968 and formed 32 per cent of the loans outstanding compared to 30 per cent as on June 30, 1967.

# NON-AGRICULTURAL CREDIT SOCIETIES

The non-agricultural credit societies comprising urban banks, employees' credit societies and others numbered 13,965 as at the end of June 1968. Their membership increased from 7,485,000 to 7,593,000 during the year. The working capital of the societies increased by Rs. 29·0 crores during the year and stood at Rs. 334·3 crores. The deposits held by these societies amounted to Rs. 213·4 crores and formed 64 per cent of the working capital. The loans and advances made during the year (comprising loans made, cash credit and overdraft limits sanctioned) amounted to Rs. 312·2 crores compared to Rs. 276·1 crores during 1966-67. Loans overdue at Rs. 15·1 crores formed 6 per cent of the total loans outstanding.

# CENTRAL LAND DEVELOPMENT BANKS

The number of central land development banks remained constant at 19 during the year. Their membership as on June 30,1968 consisted of 905 primary land development banks and societies and 915,342 individuals, including nominal members. The share capital of the banks rose by Rs. 5·2 crores and stood at Rs. 24·1 crores at the end of June 1968. Their borrowings increased by Rs. 76·6 crores to Rs. 315·2 crores in June 1968. The value of debentures outstanding increased from Rs. 232·0 crores to Rs. 299·5 crores. The loans issued during the year rose by Rs. 33·6 crores representing an increase of 57 per cent.

#### PRIMARY LAND DEVELOPMENT BANKS

The number of primary land development banks (including three land mortgage sections of central co-operative banks) increased from 707 to 731 during 1967-68, Of these 451 banks were concentrated in Andhra Pradesh, Mysore and Tamil Nadu. The membership of the banks increased from 2,156,816 to 2,446,725 and the working capital from Rs. 173.6 crores to Rs. 223.4 crores during 1967-68. Loans outstanding in June 1968 stood at Rs. 203.5 crores having risen by Rs. 48.8 crores during the year. The overdue loans stood at Rs. 5.9 crores compared to Rs. 5.7 crores at the end of the previous year.

#### STATE PARTICIPATION

State contribution to the share capital of credit societies of all types increased to Rs. 57·8 crores from Rs. 50·4 crores at the end of June 1967. As on June 30, 1968 State Government share capital in state co-operative banks was Rs. 11·4 crores, in central banks Rs. 26·6 crores, in industrial banks Rs. 1·3 crores, in primary agricultural credit societies Rs. 11·8 crores and in central land development banks Rs. 6·7 crores.

# NON-CREDIT SOCIETIES

Details relate to the year 1966-67.

The number of all types of non-credit societies, both agricultural and non-agricultural, at the close of 1966-67 stood at 133,006 representing an increase of 812 over the previous year. Number of different types of societies: Weavers' societies 12,946; other types of industrial societies 33,994; consumers' societies 14,208; housing societies 12,739; milk supply societies 9,046; farming societies 7,866; sugar cane supply societies 6,561; co-operative fisheries societies 3,483; marketing societies 3,476. Membership of these different societies was 17,289,990 and their working capital Rs. 762-3 crores.

The following are some of the important types of non-credit societies.

#### AGRICULTURAL MARKETING SOCIETIES

National and State Marketing Societies: The National Agricultural Co-operative Marketing Federation, New Delhi, is the marketing society at the national level.

<sup>\*</sup> Source: Statistical Statements Relating to Co-operative Movement in India, 1967-68 for Credit Societies and 1966-67 for Non-Credit Societies, by Reserve Bank of India.

It sold agricultural produce worth Rs. 2·3 crores as against Rs. 1 crore in 1965-66.

At the state level, there were 24 federations consisting of 21 general purpose marketing societies, one society dealing in arecanut in Mysore and three in fruits and vegetables in Delhi. The apex societies had a membership of 6,036 societies and 424 individuals and others as regular members and 693 nominal members. The value of agricultural produce sold by all the apex societies was Rs. 105·2 crores as compared with Rs. 73·5 crores in 1965·66. The apex societies sold agricultural requisites of the value of Rs. 53·2 crores of which Rs. 44·3 crores represented the value of fertilizers.

Central Marketing Societies: These societies functioning at the district or the regional level, numbered 156. These societies sold agricultural produce worth Rs. 29·1 crores as against Rs. 11·6 crores worth of agricultural produce sold by 117 societies in 1965-66. The value of agricultural requisites and consumers' articles sold by them was Rs. 53·9 crores and Rs. 38·1 crores in 1966-67 as against Rs. 38·8 crores and Rs. 30·4 crores respectively in 1965-66.

Primary Marketing Societies: The total number of primary marketing societies increased from 3,198 in 1965-66 to 3,295 in 1966-67. The membership of all the primary marketing societies consisted of 147,267 societies, 1,837,706 individuals and others as regular members and 107,975 nominal (individual) members. Their working capital as on June 30, 1967 was Rs. 76·5 crores. The value of sales of the primary marketing societies during the year increased from Rs. 316·9 crores in 1965-66 to Rs. 367·7 crores in 1966-67 of which the value of produce sold as owners came to Rs. 219·1 crores and as agents to Rs. 148·6 crores. Agricultural produce accounted for Rs. 146·7 crores and agricultural requisites Rs. 77·7 crores.

Linking of Credit with Marketing: Primary marketing societies numbering 534 assisted in the linking of credit with marketing. They recovered loans amounting to Rs. 10·4 crores on behalf of 16,818 primary agricultural credit societies as against 525 societies recovering loans totalling Rs. 12·2 crores on behalf of 16,823 primary agricultural credit societies. Co-operative marketing societies in Maharashtra, Mysore and Uttar Pradesh together accounted for 85 per cent of the total recoveries made by marketing societies in 1966-67 on behalf of credit societies. The percentage of the total amount recovered by the marketing and the processing societies to the total recoveries effected by primary agricultural credit societies during 1966-67 works out to 7·6 per cent as against 7·9 per cent in 1965-66.

# AGRICULTURAL PROCESSING SOCIETIES

Co-operative Sugar Factories: The number of co-operative sugar factories increased by four during the year, bringing their total number to 82 as on June 30, 1967. During 1966-67, 55 factories were in production. All the sugar factories had on their membership rolls 11,998 societies, 302,701 cane-growers and 13,933 members other than sugar-cane growers. The value of sugar produced by the working factories decreased from Rs. 112·1 crores in 1965-66 to Rs. 73·3 crores in 1966-67. Their sales of sugar and bye-products rose to Rs. 103·8 crores in 1966-67 from Rs. 88·1 crores in 1965-66.

Cotton Ginning and Pressing Societies: There were 163 such societies of which 83 were in Gujarat and 67 in Maharashtra. These societies operated 3,175 gins and ginned 21·1 lakh quintals of cotton. They sold cotton of the value of Rs. 18·7 crores and agricultural requisites

worth Rs. 3·5 erores. In addition to these, 47 marketing societies also undertook processing of cotton.

Other Agricultural Processing Societies: There were 1,528 primary societies of which 188 were engaged in paddy husking (other than rice mills); 155 were rice mills; 333 societies were engaged in oil crushing; 26 processed fruits and vegetables and 826 were engaged in the processing of other commodities. They had a membership of 8,623 societies and 196,694 individuals. The value of their sales decreased from Rs. 3.6 crores in 1965-66 to Rs. 2.8 crores in 1966-67.

# OTHER NON-CREDIT SOCIETIES

Farming Societies: The number of joint farming societies and their membership increased during the year by 251 and 7,282 respectively and stood at 5,328 and 1,17,092 respectively as on June 30, 1967. The number of members working on full-time basis in field operations was 55,313 and that of members engaged in part-time field operations was 17,685. The area under operation of these societies was 2.6 lakh hectares (6.5 lakh acres) of which 1.8 lakh hectares (4.3 lakh acres) were under cultivation as compared with 2.6 lakh hectares and 1.9 lakh hectares respectively in 1965-66. The value of production showed an increase from Rs. 3.8 crores to Rs. 5.4 crores. The number of collective farming societies increased from 2,218 to 2,538 and their membership rose from 78,060 to 91,305. The area commanded by them and that brought under cultivation by them was 1.5 lakh hectares and 0.9 lakh hectares respectively.

Irrigation Societies: The number of irrigation societies increased from 1,558 as on June 30,1966 to 1,631 as on June 30 1967. The area commanded and that actually irrigated by them was 1.6 lakh hectares and 0.8 lakh hectares respectively. These societies had Rs. 3.0 lakhs worth of irrigation works at the end of the year.

Fisheries Societies: The number of all Fisheries Societies (state, central and primary) increased from 3,338 as on June 30, 1966 to 3,483 as June 30, 1967. Their membership increased from 3·5 lakhs to 3·6 lakhs. Loans advanced by them declined to Rs. 73·6 lakhs from Rs. 81·3 lakhs in 1965-66. The value of their catch was Rs. 2·9 crores while their sales were of the order of Rs. 7·1 crores as compared to Rs. 2·0 crores and Rs. 4·0 crores respectively in 1965-66.

# INDUSTRIAL SOCIETIES

Weavers' Co-operative Societies: There were 23 apex weavers' societies, 107 central societies and 12,816 primary weavers' societies as on June 30, 1967. The total membership of the primary weavers' societies as on June 30, 1967 was 1,333,021. They had a working capital of Rs. 35·2 crores consisting of Rs. 13·4 crores of owned funds, Rs. 2·5 crores of deposits and Rs. 19·4 crores of borrowings. The value of the cloth produced and the value of cloth sold during the year was Rs. 52·5 crores and Rs. 53·9 crores respectively. These societies were running 1,989 sale deposits, 110 pattern-making factories and 719 dye-houses.

Other Industrial Societies: There were 20 state, 132 central and 33,842 primary industrial societies as on June 30, 1967. The 18,198 active primary societies had a membership of 11·1 lakhs of which 0·03 lakh were societies and 11·0 lakhs individuals. The value of production by the primary societies during the year was Rs. 28·1 crores and that of sales was Rs. 29·2 crores as against Rs. 27·9 crores and Rs. 28·8 crores respectively during the previous year.

Spinning Mills: The number of co-operative spinning mills as on June 30, 1967 was 66 as against 65 in 1965-66. They had 14, 222 societies and 82,373 individuals as members. They had 893,415 spindles as against 839,832 in 1965-66. The value of yarn sold by them increased from Rs. 7·5 crores in 1965-66 to Rs. 11·5 crores in 1966-67.

Consumers' Stores: The number of wholesale stores rose from 272 to 371 during the year under review. Their sales increased from Rs. 159·5 crores in 1965-66 to Rs. 190·2 crores in 1966-67. The number of primary stores rose from 13,077 to 13,837. Their membership increased to 3,371,622 from 2,927,712 as at the end of the previous year. Their purchases and sales during the year increased by Rs. 43·7 crores and Rs. 33·1 crores respectively and aggregated to Rs. 185·9 crores and Rs. 195·4 crores. The purchases and sales of all consumers' stores numbering 14,208 during the year stood at Rs. 364·9 crores and Rs. 385·5 crores respectively as against Rs. 288·3 crores and Rs. 321·8 crores respectively.

Housing Societies: There were 16 state societies with a membership of 7,540. In 1966-67 they advanced loans to the tune of Rs. 11·1 crores and amount outstanding as at the end of the year was Rs. 36·9 crores. The number of primary housing societies increased by 958 to 12,723 as on June 30, 1967, with a membership of 815,612. The number of independent houses constructed by these societies and their members in 1966-67 was 6,439 and 9,102 respectively of the value of Rs. 6·8 crores and Rs. 6·7 crores as against 6,666 and 10,421 houses valued at Rs. 6·5 crores and Rs. 7·0 crores in 1965-66. The number of tenements constructed by the societies

during 1966-67 was 15,571 as against 15,218 in 1965-66.

#### STATE PARTICIPATION

The total amount of State government's contribution to the share capital of all types of non-credit societies increased from Rs. 41·9 crores in 1965-66 to Rs. 53·1 crores in 1966-67. Of this, marketing societies received Rs. 19·8 crores, sugar factories Rs. 12·9 crores and spinning mills Rs. 8·1 crores. These three types of societies had received nearly 76 per cent of the total investment by the State Governments in the shares of Co-operatives in the non-credit sector.

All Co-operative Credit Societies—No., Membership in thousands, Paid-up Share Capital + Reserve & other funds in Rs. lakhs respectively at the end of 1967-68—By State:—Andhra Pradesh 20,069; 32,50; 35,99; Assam 4,007; 4,23; 3,69; Bihar 16,778; 23,15; 13,34; Gujarat 9,986; 25,95; 64,73; Haryana 6,590; 6,54; 7,77; Jammu & Kashmir 1,098; 2,96; 1,21; Kerala 2,650; 17,30; 15,48; Madhya Pradesh 10,814; 22,37; 35,09; Maharashtra 23,280; 59,49; 1,37,32; Mysore 11,421; 24,95; 39,92; Nagaland 31; 1; 8; Orissa 5,117; 14,71; 12,85; Punjab 11,625; 14,65; 23,75; Rajasthan 12,104; 12,64; 12,53; Tamil Nadu 9,709; 51,57; 52,92; Uttar Pradesh 28,970; 59,26; 52,40; West Bengal 14,370; 22,36; 30,57; Andaman & Nicobar Is. 44; 1; 3; Chandigarh 74; 7; 9; Delhi 855; 1,54; 2,71; Goa, Daman & Diu 197; 67; 41; Himachal Pradesh 2,711; 4,06; 2,64; Laccadives 1; —; NA; Manipur 413; 56; 27; Pondicherry 107; 18; 48; Tripura 407; 77; 51; Total 1967-68 1,93,428; 4,02,50; 5,47,80; Total 1966-67 2,00,324; 3,84,31; 4,72,13.

All Co-operative Credit Societies—No., Membership & other Working Capital at the end of 1967-68—By State—(Contd.)

Amounts in lakhs of runees

								Amour	ius ili iaklis	or rupees
	W LIK		Ban	l light leading	Loan	s from		Depos	its from	Deben- tures of
State/Union	State/Union Territory			Central Financing Agencies	Reserve Bank	Govern- ment	Other sources	Co-ope- rative Societies	Individuals and others	land deve- lopment banks
Andhra Pradesh	Breit.	7		86,60	9,41	1,55	2,07	14,77	16,76	49,71
Assam	U	200		7,39	-	91	2,98	2,76	10,22	
Bihar				27,63	7,29	1,44	1,39	8,55	9,90	2,31
Gujarat				67,58	16,37	1,40	11,46	29,58	62,06	54,17
Haryana		The same		19,66	5,53	18	5	1,69	7,08	3,93
Jammu & Kashmir				3,11	6	2,23	4,96	98	70	54
Kerala	1000			26,63	5,62	1,08	50	6,07	15,88	5,28
Madhya Pradesh				87,93	18,10	17,60	18	14,81	1,926	9,08
Maharashtra	All the ball	(Marily	-	2,21,12	23,54	3,81	1,45	80,80	1,41,11	73,70
Mysore	1 15 T		-	81,37	15,48	3,67	2,58	19,84	29,54	26,40
Nagaland						1	-	2	2	
Orissa	A Breat			25,81	5,49	1,10	8	6,64	6,65	4,51
Punjab	108 .16	44.		49,09	14,50	1,18	25	12,30	26,08	8,94
Rajasthan	antice Al	Dien.		22,42	4,70	60	96	4.74	5,53	2,48
Tamil Nadu	(Lines	A Was	DW S	87,61	14,58	2,39	3,29	20,68	46,33	31,54
Uttar Pradesh			Hillians	84.70	26,57	5,44	23	23,82	30,68	23,58
West Bengal	1.0 A	March March	MANUAL PROPERTY.	24,96	5,89	1,08	32	7,43	53,18	2,93
Andaman & Nicobar Is.		TOTAL A		*	-,00	1		1	1	
Chandigarh	Swell strike			*4	1		6	2	8	
Delhi	STATE OF			1,20	8	1	i	1,36	5,79	TO STATE
Goa, Daman & Diu				12	3	13	ī	32	79	-
Himachal Pradesh	DIE SANG			1,16		38	27	88	5,66	34
Laccadives						_	7			
Manipur				38	20	1		18	14	
Pondicherry				32	20	10		37	, 19	14
Tripura				22	15	38	1	18	21	
Total 1967-68	ALL DE LA COLUMN			9,27,05	1,73,80	46,69	33,11	2,58,80	4,93,85	2,99,55
Total 1966-67				8,15,95	1,72,99	53,95	26,95	2,18,17	4,32,22	2,32,02

<sup>\*</sup> Less than Rs. 50,000.

N. A.-Not available.

Some Co-operative Non-Credit Societies-Number and Membership at the end of June 1967-By Type of Society †

State/Union Territ	ory	Marketing Societies	Sugarcane Supplying Societies	Milk Supply Societies	Farming Societies	Irrigation Societies	Other Agri- cultural Societies	Sugar Factories
Andhra Pradesh		294		672	435 (22,876)	69 (8,690)	981 (94,108)	11 (44,944)
Assam		(3,01,349) $201$	( <u>—</u> )	(37,970) 23	361	_	21	1
	ur i	(31,198)	( <del>-</del> )	(754) 204	(15,619) $323$	$\frac{(-)}{32}$	(960) 50	(8,668)
Bihar		(18,087)	6,402 $(3,79,741)$	(4,527)	(11,336)	(642)	(2,527)	(5,774)
Gujarat		309	(_)	1,144 (2,09,287)	277 (8,304)	360 (11,075)	83 (4,692)	(19,348)
Haryana		(1,21,779) $60$	9	85	425	4	238 (8,436)	(29,426)
Jammu & Kashmir		(22,108) 57	(30,694)	(2,161)	(7,974) 2	(69)		(20,120)
Jammu & Kashimi	**	(11,738)	(—)	(180)	(61) 168	$\frac{(-)}{25}$	$\frac{(-)}{162}$	$(\frac{-}{2})$
Kerala	**	(56,721)	(_)	292 (39,267)	(9,802)	(2,426)	(26,573)	(6,307)
Madhya Pradesh		240		73	743 (16,572)	(1,828)	639 (40,851)	(2,484)
Madras*		(70,759) $134$		(2,427) $2,653$	64	25	615	(26,353)
		(76,407)	(—)	(2,04,240) 1,162	(2,483) 1,180	(2,782) 188	(55,868) 445	26
Maharashtra		(2,32,697)	(1,444)	(64,350)	(27,274)	(22,510)	(62,229) 134	(76,427) $10$
Mysore		269	4 (462)	403 (35,930)	(13,986)	(2,679)	(15,561)	(29,353)
Nagaland		(1,90,687) $4$	(±02) —	3	19	(-)	(50)	(-)
		(102) 88	(—)	(100)	(708) 129	69	36	2
		(35,789)	()	(254)	(3,293) 659	(4,305) $62$	(5,196) 702	(6,783) $4$
Punjab	1.0	98 (42,744)	10 (35,271)	329 (7,052)	(10,676)	(977)	(28,717)	(53,230)
Rajasthan	44	143		(2,029)	707 (11,968)	(216)	361 (6,763)	(5,212)
Uttar Pradesh		(30,396) 296	130	660	1,417	452	5,485 (3,05,884)	(14,297)
		(8,45,682)	(22,19,463)	(62,641) $154$	(28,159) $313$	(6,853) 131	658	1
West Bengal		314 (75,833)	(-)	(9,255)	(13,089)	(6,689)	(44,143)	(26)
Andaman & Nicobar	Is	29		(250)	24 (425)	(—)	(—)	(-)
Chandigarh	1	(881)	'='		(12)	(-)	(-)	(-)
Delhi		(272) 65	( <u>—</u> )	( <u>—</u> )	12		(239)	
		(3,039)	()	$\frac{(411)}{32}$	(277)	(_)	(259)	
Goa, Daman and Diu		(1,311)	(-)	(1,142)	(54)	(-73)	(—) 202	(-)
Himachal Pradesh		42	<del>,</del> ,	15 (343)	(200)	(4,968)	(17,495)	(—)
Laccadives		(5,830)		(010)	`_`		(-)	(-)
	100	(6,679)	( <u>—</u> )	(—)	54			
Manipur		18 (1,794)	(-)	(-)	(2,742)	( <u>—</u> )	(-)	(_'
Pondicherry		3	(1,173)	(4,001)	(115)	(—)	(—)	(—)
Tripura		(900) 15		(16)	(392)	(-)	(-)	(—)
The second second	3 1	(1,715)	(—)				10,815	82
Total 1966-67	100	3,476	6,561	9,046 (6,88,587)	7,866 (2,08,397)	1,631 (76,709)	(7,20,292)	(3,28,632)
	(C+ 3)	(21,86,497)	(26,68,248)			1,558	10,649	78
Total 1965-66		3,375 (23,69,705)	8,144 (27,47,165)	8,197 $(7,22,731)$	7,295 (1,87,870)	(72,148)	(6,94,886)	(2,95,965)

<sup>\*</sup>Now called Tamil Nadu. † The figures within the brackets indicate the Membership and those outside, the number of societies in each State.

Some Co-operative Non-Credit Societies-Number and Membership at the end of June 1967-By type of Society-Contd.

State/Union I	Cerrito	ry	Weavers' Societies	Industrial Societies other than weavers' Societies	Consumers' Stores	Housing Societies	Fisheries Societies	Other non- agricultural Societies
Andhra Pradesh			1,014	4,274	744	523	511	563
Assam			(2,70,283) $1,202$	(1,83,229) 541	(6,98,026) 507	(62,290)	(45,953)	(36,390)
			(34,249)	(14,289)	(99,003)	(71)	231 (9,955)	78 (4,285)
Bihar			1,162	3,510	807	59	253	265
Gujarat			(1,64,832) 183	(87,397) 905	(1,22,880) 1,085	(7,032) 3,296	(19,593)	(8,369)
			(21,069)	(52,374)	(2,28,519)	(1,11,161)	74 (12,200)	553 (77,203)
Haryana			271	1,534	59	74	2	506
Jammu & Kashn	nir		(3,972)	(24,561) $203$	(42,751) $57$	(5,255) 3	(30)	(30,128)
			(1,184)	(6,477)	(19,646)	(129)	(616)	(615)
Kerala			415	2,576	331	78	510	937
Madhya Pradesh			(55,412)	(2,81,458) 2,180	(1,32,818) 1,183	(7,223)	(68,308)	(4,29,530)
			(36,155)	(48,071)	(2,22,395)	(30,220)	158 (6,053)	827 (51,307)
Madras*			1,133	2,622	1,743	959	440	273
Maharashtra			(2,30,062) $766$	(2,79,811)	(8,72,701)	(1,34,975)	(61,783)	(61,715)
			(78,815)	2,003 (92,587)	1,433 (4,28,260)	4,487 (1,91,429)	304 (53,264)	1,662 (1,45,511)
Mysore			863	1,695	1,293	724	106	351
Nagaland			(1,19,617)	(2,28,655)	(3,32,371)	(1,25,725)	(20,273)	(39,706)
Nagaland		100	(100)	(120)	(2,057)		(20)	(2,107)
Orissa			530	1,213	437	515	159	487
Punjab			(58,137)	(59,222)	(79,482)	(21,590)	(16,638)	(44,281)
		inter	730 (13,472)	3,132 (48,531)	(95,962)	139 (6,129)	2	1,920
Rajasthan			1,025	2,382	687	237	(53) 11	(95,145) $1,375$
Uttar Pradesh			(31,201)	(46,538)	(1,78,067)	(13,785)	(308)	(54,586)
Cttal Fladesh		**	(1,30,452)	3,004 (72,503)	990	682	102	567
West Bengal			979	1,072	(2,70,489) $2,053$	(26,528) $265$	(3,839) 529	(22,917) 438
Andaman & Nico	1 7		(84,438)	(42,770)	(4,37,991)	(26,180)	(32,503)	(34,362)
Andaman & Nico	bar 1s.		(10)	6 (413)	34	1	4	19
Chandigarh	10.00	953	4	4	(1,024)	(18)	(112)	(1,689)
Delhi			(676)	(194)	(—)	(3,250)	(—)	(—)
Deini		•	93 (1,826)	305	374	274		70
Goa, Daman and	Diu		(1,020)	(5,641) $23$	(1,35,575) $52$	(48,584)	( <del>_</del> )	(1,163)
Himachal Pradesl			(49)	(2,438)	(13,296)	(292)	(3,045)	(1,372)
nimachai Pradesi	1	••	(2,208)	467	52	2	1	310
Laccadives			(2,208)	(10,044)	(15,353)	(34)	(10)	(18,105)
Nr.			(—)	()	(—)	<u>(</u> -)	(48)	(297)
Manipur			122	261	62	2	38	145
Pondicherry			(6,459) 12	(7,608) 21	(4,152)	(55)	(3,510)	(7,760)
			(1,986)	(954)	(11,603)	(1,126)	(2,507)	(965)
Tripura		-	75	52	53	2	6	15
			(3,396)	(1,520)	(8,308)	(71)	(1,253)	(603)
Total 1966-67		1	12,946	33,994	14,208	12,739	3,483	11,434
			(13,50,060)	(15,97,405)	(44,52,729)	(8,23,152)	(3,61,874)	(11,70,111)
Total 1005 00					(-1,02,120)	(0,20,102)	(0,01,014)	
Total 1965-66	10		13,076	35,092	13,349	11,778	3,338	11,229
			(13,31,470)	(16,24,033)	(34,49,989)	(7,62,296)	(3,47,865)	(10,56,467)

<sup>\*</sup>Now called Tamil Nadu

# POPULATION\*

Note: - Unless otherwise stated the following article is based on the 1961 census which is the latest.

NDIA has only 2.4 per cent of world's land and 1.5 per cent of world income but 14 per cent of world's

population. Population in India roughly grows at the rate of 13 million a year. The population estimate 1969-70 is about 540 millions. Between 1951 and 1969, India's population rose by 48 per cent from 363 millions to 537 millions.

Birth rate per thousand, death rate per thousand and growth rate per cent respectively: 1951-60 (Census): 41.7; 22.8; 2.15; 1961-65 (Projected) 41.0; 17.2; 2.38; 1966-70 (Projected) 38.6; 14.0; 2.46; 1976-80 (Projected) 28.7; 9.2; 1.95.

Expectation of life at birth (in years): 1941-50 (Census): Males 32·5; Females 31·7; Overall 32·1; 1966-67 (Projected) Males 53·2; Females 51·9; Overall 52·6.

Literacy: Literacy in the country is estimated to have gone up by 9 % since 1961 from 24 per cent to 33 per cent.

\* Blind Persons: There are 4.5 million blind persons in the country against the total blind population of 15 millions in the world.

# CENSUS 1961

The population of India has registered an unprecedented increase of 21·5 per cent from 359 million in 1951 to 439 million in 1961 according to the 1961 census figures.

The number of cities with a population of more than a million has gone up from five to six or seven, the number and the order of precedence varying with the definition adopted.

# URBAN DENSITY

Greater Bombay ranks first with 4:15 million and Calcutta second with 2:93 million, Delhi (including New

Delhi, Shahdara and the Cantonment) third with  $2\cdot 34$  million, Madras fourth with  $1\cdot 73$  million, Hyderabad fifth with  $1\cdot 25$  million, and Ahmedabad sixth with  $1\cdot 15$  million.

If, however, the population of Calcutta (including 34 contiguous urban townships in a compact area of 164 sq. miles) is aggregated, "Greater Calcutta" ranks first with 5.55 million inhabitants. Similarly, "Metropolitan Bangalore" has a population of 1.21 million.

The density of population for the country works out to 370 per square mile as against 312 in 1951.

The highest urban density is to be found in Calcutta city (75,038). This compares with 22,293 per square mile in Greater Bombay and 55,208 in Madras.

The City-Sadar-Paharganj area of Delhi, however, has a density of 143,185 persons per sq. mile and the Karolbagh-Patel Nagar area of Delhi a density of 74,195. According to the final census reports these two areas "can be counted in the forefront of the world's highest density areas."

The highest increase in urban population during the last ten years has been recorded in Assam (116.69 per cent). Orissa comes next with 87.02 per cent, followed by Bihar, 49.08 per cent. Madhya Pradesh showed an increase of 47.76 per cent while Kerala 42.44 per cent.

# GROWTH OF POPULATION FROM 1901-1961

(Persons and approx. percentage respectively): 1901 (236,281,245; ...); 1911 (252,122,410;  $+5 \cdot 73$ ); 1921 (251,352,261;  $-0 \cdot 31$ ); 1931 (279,015,498;  $+11 \cdot 01$ ); 1941 (318,701,012;  $+14 \cdot 22$ ); 1951 (361,129,622;  $+13 \cdot 31$ ); 1961 (439,235,082;  $+21 \cdot 50$ ).

#### PODIJI ATION ADEA DENSITY, SEX RATIO BY STATE

States/Union	Area in		Population	III, SEA KA	Variation	Percent- tage	Females per 1,000	Popula- tion per
Territories	sq. miles	Persons	Males	Females	1951-61	increase 1951-61	males 1961	sq. mile 1961
INDIA	1,178,995	439,235,082	226,293,620	212,941,462	77,641,652	21.50	941	370
States				15 001 550	4 000 100	15.65	981	339
Andhra Pradesh	106,286	35,983,447	18,161,671	17,821,776	4,868,188	34.45	876	252
Assam	122,481@	11,872,772	6,328,129	5,544,643	3,042,040	19.18	994	691
Bihar	67,196	46,455,610	23,301,449	23,154,161	7,671,832	26.88	940	286
Gujarat	187,091@	20,633,350	10,633,902	9,999,448	4,370,693			
Jammu & Kashmir	228,800@	3,560,976	1,896,633	1,664,343	307,124	9.44	878	1,127
Kerala	15,002	16,903,715	8,361,927	8,541,788	3,354,597	24.76	1,022	189
Madhya Pradesh	171,217	32,372,408	16,578,204	15,794,204	6,300,771	24.17	953	
Maharashtra	306.345@	39,553,718	20,428,882	19,124,836	7,551,154	23.60	936	333
Vr	192,203@		12,040,923	11,545,849	4,184,816	21.57	959	318
Oniona	155.845@	17,548,846	8,770,586	8,778,260	2,902,900	19.82	1,001	292
Daniel a laste	47,205	20,306,812	10,891,576	9,415,236	4,171,922	25.86	864	430
Daireth	342,268@	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	10,564,082	9,591,520	4,184,828	26.20	908	153
D 11 37 1	50,331	33.686,953	16,910,978	16,775,975	3,567,906	11.85	992	669
THE TO 1 1	113,654	73,746,401	38,634,201	35,112,200	10,530,659	16.66	909	649
West Bengal	33,829	34,926,279	18,599,144	16,327,135	86,623,893	32.79	878	1,032
Union Territories and other areas	00,020	02,020,2						
Andaman & Nicobar				01.011	32,577	105.19	617	20
Islands	3,215	63,548	39,304	24,244	914,540	52.44	785	4,640
Delhi	1,483.05	2,658,612	1,489,378	1,169,234		21.78	923	124
Himachal Pradesht	10,885	1,351,144	702,697	648,447	241,678	21.10	020	100 700
Laccadive, Minicoy & Amindivi Islands	11	24,108	11,935	12,173	3,073	14.61	1,020	2,192
					A Thefano moon	ganisation in	November 19	66. See une

<sup>\*</sup> Wherever available, the area is given in kilometres. the respective article for its present area and population.

<sup>†</sup> Composite State. @ In. sq. kms.

<sup>#</sup> Before reorganisation in November 1966. See under # denotes increase; — denotes decrease.

# POPULATION, AREA, DENSITY, SEX RATIO BY STATE—(Contd.)

States/Union	Area in		Population		Variation	Percent-	Females per 1,000	Popula- tion per
Territories	sq. miles	Persons	Males	Females	1951-61	increase 1951-61	males 1961	sq. mile 1961
Manipur	8,628	780,037	387,058	392,979	202,402	35.04	1,015	90
Tripura Dadra & Nagar	4,036	1,142,005	591,237	550,768	502,976	78.71	932	283
Haveli Goa, Daman & Diu	489@ 1,426	57,963 626,978	29,524 302,953	28,439 324,025	16,613 —10,613	39·56 — 1·66	963 1,070	307 440
NEFA Nagaland Pondicherry	81,425 · 9@ 6,366 481 · 8@	336,558 369,200 369,079	177,680 191,027 183,347	158,878 178,173 185,732	28,975 51,826	14·07 16·34	894 933 1,013	11 58 1,995

# STATE-WISE SCHEDULE CASTES AND SCHEDULE TRIBES (1961)\*

State/Territory			ıle Castes & Urban)		ıle Tribes & Urban)	Url	ban
		Males	Females	Males	Females	Schedule Castes	Schedule Tribes
Andhra Pradesh	-	2,512,325	2,461,291	670,368	654,000	552,088	57,081
Assam		389,271	343,485	1,057,076	1,011,288	60,670	68,033
Bihar		3,218,935	3,317,940	2,087,944	2,116,776	362,221	109,945
lujarat		693,436	673,819	1,398,478	1,355,968	334,182	137,950
ammu & Kashmir		134,765	133,765			20,895	
Cerala		705,709	716,348	103,995	104,001	123,211	8,159
Iadhya Pradesh		2,155,875	2,097,149	3,334,363	3,344,047	455,294	75,085
laharashtra		1,135,191	1,091,723	1,211,605	1,185,554	485,453	89,910
Lysore	14.40	1,586,547	1,530,685	98,337	93,759	508,487	9,935
rissa		1,371,410	1,392,448	2,094,753			
unjab†	100	2,208,473	1,930,633	6,964	2,129,004	126,026	87,551
Lajasthan		1,747,476	1,612,164		7,168	480,398	47 040
amil Nadu		3,047,613	3,024,923	1,198,886	1,110,561	413,045	47,240
Ittar Pradesh	-	7,944,364		129,578	123,068	925,923	14,328
Vest Bengal		3,629,182	7,472,881	10/5005		1,079,775	
. & N. Islands@@	**		3,321,544	1,047,287	1,016,596	676,569	47,771
elhi		100 450	***	7,318	6,804	THE RESERVE AND	100
limachal Pradesh‡		189,470	152,085			272,243	
. M. & A. Islands	122311	191,429	178,487	54,719	53,475	12,142	350
aninue	• •	0.000		11,466	11,925		
ringre	1980	6,886	6,490	123,162	125,887	158	4,146
adra & Nagar Hamilton		62,069	55,656	184,174	175,896	6,748	3,698
adra & Nagar Haveli EFA	**	498	686	26,002	25,259		
o malam J		A CONTRACTOR		3,363	1,679		
ondicherry		80	46	171,233	172,464	95	9,863
II To die		28,804	28,057			3,725	
ll India		32,963,779	31,547,534	15,040,707	14,842,763	6,899,848	773,552

<sup>\*</sup> Excludes Goa, Daman and Diu. † Composite State. See under the respective State articles on Punjab and Haryana for their present area and population. † Before reorganisation in Nov. 1966. See under the respective article for its present area and population. @ In sq. K as. @@ A. N. means Andaman & Nicobar.

Rural and Urban Population:—The first figure shows rural population and the second urban: States: Andhra Pradesh 29,708,939; 6,274,508; Assam 10,959,744: 913,028; Bihar 42,541,690; 3,913,920; Gujarat 15,316,726; 5,316,624; Jammu & Kashmir 2,967,661; 593,315; Kerala 14,349,574; 2,554,141; Madhya Pradesh 27,745,174; 4,627,234; Maharashtra 28,391,157; 11,162,561; Mysore 18,320,279; 5,266,493; Orissa 16,439,196; 1,109,650; Punjab† 16,218,217; 4,088,595; Rajasthan 16,874,124; 3,281,478; Tamil Nadu 24,696,425, 8,990,528; Uttar Pradesh 64,266,506; 9,479,895; West Bengal 26,385,437; 8,540,842.

Territories:—Andaman and Nicobar Islands 49,473; 14,075; Delhi 299,204; 2,359,408; Himachal Pradesh\* 1,287,216; 63,928; Laccadive, Minicoy and Amindivi Islands 24,108; —; Manipur 712,320; 67,717; Tripura

\* Before reorganisation in Nov. 1966. † Composite State.

1,039,008; 102,997; Dadra and Nagar Haveli 57,963; —; Goa, Daman & Diu —; —; N.E.F.A. 336,558; —; Nagaland 350,043; 19,157; Pondicherry 280,082; 88,997; Sikkim 155,341; 6,848.

#### TOWNS-STATE-WISE

States: Andhra Pradesh 223; Assam 60; Bihar 153; Gujarat 181; Jammu & Kashmir 43; Kerala 92; Madhya Pradesh 219; Maharashtra 265; Mysore 230; Orissa 62; Punjab† 187; Rajasthan‡ 32; Tamil Nadu 338; Uttar Pradesh 649; West Bengal 184.

Union territories and other areas: Andaman & Nicobar Islands 1; Delhi 3; Himachal Pradesh\* 13; Laccadive, Minicoy & Amindivi Islands N.A.; Manipur 1; Tripura 6; Dadra and Nagar Haveli N.A.; Goa, Daman & Diu—N.E.F.A.—; Nagaland 3; Pondicherry 5.

# Having a population of over 20,000 each.

# Cities with a population of over one million each in 1961

Andhra Pradesh: Hyderabad 1,251,119; Gujarat: Ahmedabad 1,149,918; Maharashtra: Greater Bombay 4,152,056; Mysore: Bangalore 1,206,961; Tamil Nadu: Madras 1,729,141; West Bengal: Calcutta 2,927,289.

#### SNOW-BOUND AREAS

List of snow-bound areas in the States and their provisional population in 1961. Under each State the population of such areas in districts with the population of tahsils or sub-divisions in such areas of the districts is given:—

Punjab State†: 178,694 (males 92,541; females 86,153): (i) Lahaul and Spiti District @ 20,478 (males 11,538; females 8,940): (a) Spiti 5,324 (males 2,873; females 2,451); (b) Lahaul 15,154 (males 8,665; females 6,489); (ii) Kangra District @ 158,216 (males 81,003; females 77,213); (a) Kulu Sub-division @ 152,766 (males 78,431; females 74,335); (b) Bara Banghal Area 5,450 (males 2,572; females 2,878).

Himachal Pradesh Territory\*: 395,333 (males 206,967; females 188,366): (i) Chamba District 51,393 (males 27,655; females 23,738): (a) Pangi Sub-tahsil 11,644 (males 6,116; females 5,528); (b) Bharmur Sub-tahsil 25,582 (males 14,086; females 11,496); (c) Lylh Kanungo Circle of Chamba Tahsil 14,167 (males 7,453; females 6,714); (ii) Kinnaur District 40,640 (males 20,489; females 20,151): (a) Nichar Sub-division 12,062 (males 6,373; females 5,689); (b) Pooh Sub-division 13,012 (males 6,248; females 6,764); (c) Kalpa Sub-division 15,566 (males 7,868; females 7,698); (iii) Mahasu District 238,963 (males 126,143; females 112,820); (a) Rampur Tahsil 43,757 (males 22,519; females 21,238); (b) Chopal Tahsil 40,384 (males 22,603; females 17,781); (c) Theog Tahsil 41,014 (males 21,899; females 19,115); (d) Rohru Tahsil 51,805 (males 26,218; females 25,587); (e) Jubbal Tahsil 17,636 (males 9,413; females 8,223); (f) Kumarsain Sub-tahsil 23,822 (males 12,437; females 11,385); (g) Kot-Khai Sub-tahsil 20,545 (males 11,054; females 9,491); (iv) Mandi District 64,337 (males 32,680; females 31,657): (a) Pargana Chohar of Tahsil Jogindernagar 7,438 (males 3,637; females 3,801); (b) Parganas Uttarsal Badar and Snor of Tahsil Mandi Sadar 14,416 (males 7,501; females 6,915); (c) Parganas Maidangarh Dhangyara and Sraj of Tahsil Chachiot 42,483 (males 21,542; females 20,941).

Uttar Pradesh State: Pithoragarh District (Villages of Sipu, Marcha, Tejang, Khimling, Go, Filam, Dantu, Yangsung, Baun, Saun Dugtu, Dugtu, Baling, Nagling, Chal, Sela, Kuti, Navi, Rung, Kang, Napal Chyon, Gunji, Garbyang and Bundi of Dharchula Sub-division) 6,011 (males 3,150; females 2,861).

Jammu & Kashmir State: 300,657 (males 157,278; females 143,379): (i) Kathna District: Basohli Tahsil 16,418 (males 8,792; females 7,626); (ii) Poonch District 43,776 (males 23,050; females 20,726): (a) Haveli Tahsil 19,211 (males 10,078; females 9,133); (b) Mendhar Tahsil 6,607 (males 3,452; females 3,155); (c) Rajouri Tahsil 17,958 (males 9,520; females 8,438); (iii) Baramulla District 29,018 (males 15,783; females 13,235): (a) Karnah Tahsil 18,237 (males 9,929; females 8,308); (b) Handwara Tahsil 2,299 (males 1,244; females 1,055); (c) Sopore Tahsil 8,482 (males 4,610; females 3,872); (iv) Ladakh District 86,927 (males 43,695; females 43,232): (a) Leh Tahsil 42,486 (males 21,086; females 21,400); (b) Kargil Tahsil 44,441 (males 22,609; females 21,832); (v) Udhampur District: Rea@i Tahsi 86,927 (males 43,695; females 43,232); (vi) Doda District 99,661 (males 52,988; females 46,673); (a) Ramaban Tahsil 36,579 (males 19,201; females 17,378); (b) Doda Tahsil 20,848 (males 11,282; females

9,566); (c) Kishtwar Tahsil 14,963 (males 7,955; females 7,008); (d) Bhaderwah 27,271 (males 14,550; females 12,721); (vii) Anantnag District: Anantnag Tahsil 503 (males 275; females 228).

List of Agency areas in Andhra Pradesh State and their population in 1961: Andhra Pradesh 530,803 (males 268,685; females 262,118); (i) Srikakulam 71,349 (males 36,337; females 35,012): (a) Parvatipuram 43,544 (males 22,321; females 21,223); (b) Salur 7,721 (males 3,942; females 3,779); (c) Palakonda 20,084 (males 10,074; females 10,010); (ii) Visakhapatnam 196,356 (males 100,514; females 95,842): (a) Narasapatnam (Agency) 4,073 (males 2,049; females 2,024); (b) Chintapalle (Agency) 44,039 (males 22,885; females 1,154); (c) Chodavaram (Agency) 8,072 (males 4,127; females 3,945); (d) S. Kota (Agency) 8,072 (males 4,005; females 4,067); (e) Paderu (Agency) 132,100 (males 67,448; females 64,652); (iii) East Godavari 120,141 (males 60,224; females 59,917): (a) Pratipadu Taluk 7,953 (males 4,045; females 3,908); (b) Rampachodavaram Taluk 48,618 (males 24,156; females 24,462); (c) Yellavaram Taluk 63,570 (males 32,023; females 31,547); (iv) West Godavari: Polavaram 46,271 (males 23,072; females 23,199); (v) Khammam 96,686 (males 48,538; females 48,148): (a) Bhadrachalam Taluk 55,707 (males 27,89; females 27,816); (b) Nugur Taluk 40,979 (males 20,647; females 20,332).

# CITIES OF POPULATION 100,000 AND OVER IN EACH STATE FOR 1961

States and Cities	Population	Variation 1951-61	Females per 1,000 males
Andhra Pradesh:			
Vijayawada	230,397	69,199	947
Guntur	187,122	61,867	979
Visakhapatnam	182,004	73,962	920
Warangal	156,106	22,976	929
Rajahmundry	130,002	24,726	985
Kakinada	122,865	22,913	971
Eluru	108,321	21,108	1,004
Nellore	106,776	25,296	932
Bandar (Masulipatam	) 101,417	23,464	947
Kurnool	100,815	40,593	938
Assam:	700.000	10 000	763
Shillong	102,398	43,886	497
Gauhati	100,707	57,092	431
Bihar:	001 501	01 115	769
Patna	364,594	81,115	784
Jamshedpur	328,044	109,882	104
Dhanbad-Jaria-Sindri	000 010	127,016	635
Town Group	200,618		834
Gaya	151,105	17,405	001
Monghyr-Jamalpur	7.40.007	28,287	875
Town Group	146,807	29,320	817
Bhagalpur	143,850	33,404	792
Ranchi	140,253	35,454	695
Muzaffarpur	109,048	18,200	870
Darbhanga	103,016	10,200	010
Gujarat:		000 000	804
Ahmedabad	1,206,001	328,672	857
Baroda	298,398	86,991	916
Surat	288,026	64,844	916
Rajkot	194,145	62,076	916
Bhavnagar	176,473	38,522	916
Jamnagar	148,572	44,153	914

<sup>\*</sup> Before reorganisation in Nov. 1966. † Composite State. @ Now in Himachal Pradesh.

# CITIES OF POPULATION 100,000 AND OVER IN EACH STATE FOR 1961—Continued.

States and Cities	Population	Variation 1951–61	Females per 1,000 males	States and Cities	Population	Variation 1951-61	Females per 1,000 males
Jammu & Kashmir:				Rajasthan :			
Srinagar	295,084		863	Jaipur	403,444	112,314	856
Jammu	102,738		784	Ajmer	231,240	34,607	887
				Jodhpur	224,760	44,043	847
Kerala:				Bikaner	150,634	33,521	884
				Kota	120,345	55,238	826
Cochin-Ernakulam-				Udaipur	111,139	21,518	844
Alwaye Town Group		119,542	932	// man 27 37 - 3 -			
Trivandrum	302,214	104,621	968	Tamil Nadu:			
Calicut Town Group	248,548	89,824	965	Madras	1,729,141	313,085	901
Alleppey	138,834	22,556	945	Madurai	424,810	63,029	952
				Coimbatore	286,305	88,550	885
Madhya Pradesh:				Tiruchirapalli	249,862	30,941	945
Indore	394,941	94 000	051	Salem	249,145	46,810	957
Tabalana	367,014	84,082	851	Palayamcottai Town			
Gwalior	300,587	110,016 59,010	809	Group	190,048	29,119	1,016
Bhopal	222,948	120,615	853	Tuticorin Town Group		28,490	966
Ujjain	144,161	14,344	771 872	Vellore Town Group	122,761	16,737	978
Raipur	139,792	49,988	890	Kurichi Town Group	119,380	52,212	954
Durg Town Group	133,230	112,981	594	Thanjavur	111,099	10,419	979
Sagar	104,676	24,608	859	Nagercoil	106,207	26,923	990
	202,010	21,000	009	Uttar Pradesh:			
Maharashtra:					071 000	00- 0-0	200
				Kanpur Town Group	971,062	265,679	739
Greater Bombay		1,157,612	663	Lucknow Town Group	655,673	158,812	789
Poona Town Group	737,426	137,075	870	Agra Town Group Varanasi Town Group	508,680	133,015	824
Nagpur Town Group	690,302	205,038	886	Allahabad Town	489,864	134,085	812
Sholapur Nasik Town Group	337,583	60,496	902		430,730	98,435	770
Kalyan Town Group	215,576	58,688	833	Meerut Town Group	283,997	50,433	778 802
Kolhapur Town	194,334	54,573	869	Bareilly Town Group	272,828	64,745	841
Charren	100 100			Moradabad Town	212,020	04,740	041
Ammonati	193,186	56,351	884	Group	191,828	29,974	845
Sangli Town Group	137,875	35,069	852	Saharanpur	185,213	36,778	821
Malagaan	127,183	36,672	906	Aligarh	185,020	43,402	825
Ahmednagar	121,408 119,020	66,386	893	Gorakhpur	180,255	47,819	757
Alzolo	115,760	13,745	886	Jhansi Town Group	169,712	42,347	840
Thana Town Group.	109,215	26,154	854	Dehra Dun Town	100,112	12,011	010
Edward Group.	109,219	41,456	774	Group	156,341	12,125	804
				Rampur	135,407	1,130	850
Mysore:				Mathura Town Group	125,258	19,485	814
Bangalore Town				Shahjahanpur Town			
Group	1,206,961	420,618	874	Group	117,702	12,867	868
Mysore	253,865	9,542	904	Mirzapur-cum-		The state of the s	
Hubli-Dharwar Town			201	Vindhyachal	100,097	13,569	893
Group	171,326	41,717	911				
Mangalore Town				West Bengal:			
Group	170,253	53,170	982	Calcutta	2,927,289	228,795	612
Kolar Gold Fields	146,811 _	-12,273	984	Howrah	512,598	78,968	630
Belgaum Town Group	146,790	26,458	879	South Suburban			
			H. (500)	Group	341,712	128,497	740
Prissa:				Asansol Town Group	168,689	73,925	660
CLL 2				Bhatpara	147,253	12,714	585
uttack	146,308	43,803	722	Kharagpur	147,253	17,617	810
				Bally	130,896	67,758	553
Punjab :*				Kamarhati	125,457	48,206	648
mritsar Town Group	200 047	0.7		South Dum-Dum	111,284	49,893	778
ullundur Town	398,047	61,933	789	Burdwan	108,224	32,848	789
a	965 090	00 0 10	780	Baranagar	107,837	30,711	762
19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	265,030	63,040	791	D 11.		0	
mbala Town Group	244,032	90,237	829	Delhi:		A ELL	
	181,747 125,234	29,725 27,365	772	Delhi	2,061,758	941,888	788
atiala			798				727

#### TOWNS

#### Andhra Pradesh

50,000-1,00,000 (8)

Nizamabad 79,093; Tenali 78,525; Vizianagaram 76,808; Adoni 69,951; Kothagudem 69,728; Vijayapuri 55,300; Anantapur 52,280; Proddatur 50,616.

20,000-50,000 (51)

Cuddapah 49,027; Guntakal 48,083; Chittoor 47,876; Anakapalle 46,402; Chirala 45,410; Gudivada 44,801; Bhimavaram 43,821; Nandyal 42,927; Khammam 35,888; Tirupati 35,846; Ongole 35,804; Mahbubnagar 35,588; Srikakulam 35,071; Bapatla 33,668; Hindupur 32,445; Samalkot 31,924; Karimnagar 31,554; Bodhan 30,929; Kagaznagar 30,604; Narsapur 30,064; Narasaraopet 29,744; Malkapuram 29,186; Billampalle 29,101; Palacole 28,481; Pithapuram 27,910; Tadepalligudem 27,086; Kalahasti 26,460; Salur 26,111; Gudur 25,618; Bobbilli 25,592; Parvatipuram 25,281; Tanuku 24,657; Madanapalle 24,386; Nalgonda 24,383; Kadiri 24,307; Peddapuram 24,302; Amalapuram 24,063; Rayadrug 23,779; Tadpatri 23,129; Ponnur-Nidubrole 22,872; Narasapatnam 22,768; Chilakaluripet 22,666; Tuni 22,452; Mangalagiri 22,182; Repalle 21,941; Yemmiganur 21,061; Adilabad 20,970; Jagtial 20,941; Kavali 20,544; Narayanpet 20,504; Dharmavaram 20,405.

### Assam

50,000-1,00,000 (1)

Dibrugarh 58,480.

20,000-50,000 (11)

Silchar 41,062; Nowgong 38,600; Digboi Town Group 35,028; Pandu 31,173; Karimganj 28,683; Tinsukia 28,468; Dhubri 28,355; Jorhat 24,953; Tezpur 24,159; Lumding 23,186; Barpeta 22,207.

#### Bihar

50,000-1,00,000 (6)

Chapra-Revelganj Town Group 88,264; Bihar 78,581; Arrah 76,766; Dinapur Town Group 70,766; Barauni-Teghra Town Group 69,562; Katihar 59,344.

20,000-50,000 (30)

Kumardhubi Town Group 42,722; Hazaribagh 40,958; Purnea 40,602; Bettiah 39,990; Dehri 38,092; Sasaram 37,782; Giridih 36,881; Mokameh 35,743; Dinapur Nizamat 35,159; Hajipur 34,044; Motihari 32,620; Jaridih Bazar 31,605; Sahibganj 31,409; Chakradharpur 30,906; Madhubani 28,229; Siwan 27,370; Begusarai 27,346; Kishanganj 27,002; Samastipur 25,726; Daltonganj 25,270; Jugsalai 24,528; Jamui 24,213; Teghra 23,573; Jehanabad 23,209; Buxar 23,068; Chaibasa 22,019; Jhumri-Tilaiya 21,777; Barahiya 20,502; Chakradharpur 20,260; Ramgarh Cantonment 20,041.

#### Gujarat

50,000-1,00,000 (10)

Nadiad 78,952; Porbandar 75,081; Junagadh 74,298; Broach 73,639; Veraval Town Group 60,857; Navsari 53,600; Godhra 52,167; Patan 51,953; Cambay 51,291; Morvi 50,192.

# 20,000-50,000 (42)

Dhoraji 48,951; Surendranagar 48,602; Gondal 45,069; Anand 40,458; Bluj 40,180; Viramgam 38,955; Bulsar 37,586; Dohad 35,483; Petlad 35,239; Amreli 34,699; Sidhpur 33,850; Mahuva 32,732; Mehsana 32,577; Dhrangadhra 32,197; Kalol 31,940; Jetpur 31,186; Savarkundla

31,051; Dabhoi 30,841; Palanpur 29,139; Upleta 27,613; Dholka 27,476; Wadhwan 27,104; Kapadvanj 27,053; Mandvi 26,609; Gandhidham 26,514; Botad 26,168; Visnagar 25,982; Bilimora 24,941; Borsad 24,704; Palitana 24,581; Kadi 23,661; Anjar 23,301; Wankaner 22,509; Limbdi 21,801; Rajpipla 21,426; Umreh 21,244; Mangrol 21,089; Unjha 20,371; Ankleshwar 20,287; Khambhalia 20,064.

# Jammu & Kashmir

50,000—1,00,000 (Nil) 20,000—50,000 (1)

Anantnag 21,087.

# Kerala

50,000-1,00,000 (4)

Quilon 91,018; Palghat 77,620; Trichur 73,038; Kottayam 52,685.

20,000-50,000 (25)

Cannanore Town Group 48,960; Tellicherry 44,763; Kayamkulam 44,571; Badagara 43,908; Changanacherry 42,376; Kilikolloor 32,273; Shertali 31,155; Chowghat 28,903; Kasargod 27,635; Chittoor-Thathamangalam 26,457; Thiruvalla 24,242; Azhikode 24,212; Feroke 24,124; Kanhangad 23,621; Ponnani 22,977; Muvattupuzha 22,900; Katakampally 22,488; Irinjalakuda 22,335; Chengannur 22,277; Attingal 22,051; Nileshwar 20,956; Kundara 20,945; Parur 20,852; Haripad 20,378; Neyyattinkara 20,268.

# Madhya Pradesh

50,000-1,00,000 (4)

Ratlam 87,472; Bilaspur 86,706; Burhampur 82,090; Khandwa 65,505; Murwara Town Group 60,472.

# 20,000-50,000 (30)

Mhow Cantonment 48,032; Damoh 46,656; Rajnandgaon 44,678; Rewa 43,065; Mandsaur 41,876; Satna 38,046; Chhindwara 37,244; Raigarh 36,933; Neemuch 36,287; Dewas 34,577; Itarsi 36,611; Dhamtari 31,552; Jaora 31,140; Guna 31,031; Khargone 30,652; Seoni 30,274; Datia 29,420; Shivpuri 28,681; Sehore 28,489; Morena 28,337; Dhar 28,325; Bhind 28,208; Vidisha 27,718; Bina 27,476; Rajhara-Jharandalli 23,346; Harda 22,276; Shahdol 22,196; Chhatarpur 22,146; Tikamgarh 20,469; Jagdalpur 20,412.

# Maharashtra

50,000-1,00,000 (11)

Dhulia 98,893; Aurangabad Town Group 97,701; Nanded 81,087; Jalgaon 80,351; Bhusawal Town Group 79,121; Jalna 67,158; Gondia 56,320; Achalpur Town Group 54,028; Chanda 51,484; Ichalkaranji 50,978; Barsi 50,389.

20,000-50,000 (44)

Wardha 49,113; Satara 48,709; Bhiwandi 47,630; Amalner 46,963; Yeotmal 45,587; Pandharpur 45,421; Khamgaon 44,432; Nandurbar 41,055; Latur 40,913; Dehu Town Group 40,902; Hinganghat 36,890; Parbhani 36,795; Ambarnath 34,509; Chalisgaon 34,280; Karad 33,772; Bhir 33,066; Manmad 31,551; Akot 31,459; Ratnagiri 31,091; Malkapur 29,687; Bassein Town Group 28,238; Pulgaon 28,063; Bhandara 27,710; Dhond 27,168; Washim 26,494; Chopda 26,460; Karanja 26,440; Tumsar 24,910; Badnera 23,840; Hingoli 23,407; Shrirampur 22,802; Umrer 22,682; Anjangaon 21,931; Dharangaon 21,771; Sangamner 21,729; Lonavala 21,713; Shegaon 21,674; Arvi 21,478; Akkalkot 21,278; Baramati 21,118; Yeola 21,039; Shirpur 20,846; Uran-Islampur 20,817; Ballarpur 20,351.

# Mysore State

50,000-1,00,000 (9)

Gulbarga 97,069; Bellary 85,673; Bijapur 78,854; Davanger 78,124; Gadag-Betgeri 76,614; Bhadravati Town Group 65,776; Shimoga 63,764; Raichur 63,329; Hospet 53,242.

20,000-50,000 (30)

Kargal 49,878; Tumkur 47,277; Bagalkot 39,934; Mandya Town Group 33,347; Chitradurga 33,336; Kolair 32,587; Bidar 32,420; Hassan 32,172; Ranibennur 31,304; Chikmagalur 30,253; Naipani 29,374; Rabkavi Banhatti 28,871; Doddaballapur 27,361; Channapatna 26,467; Yadgir 25,764; Udipi 24,610; Channarajanagar Ramasamudram 24,430; Guledgud 24,292; Ilkal 24,222; Jamkhandi 24,017; Karwar 23,906; Chikballapur 23,025; Harihar 22,829; Kollegal 22,663; Gokak 21,854; Sirsi 21,240; Haveri 21,043; Konnur 20,795; Shahbad 20,454; Sagar 20,414.

#### Orissa

50,000-1,00,000 (3)

Rourkela 90,287; Berhampur 76,931; Puri 60,815.

20,000-50,000 (8)

Sambalpur 38,915; Bhubaneswar 38,211; Balasore 33,931; Jeypore 25,291; Bhadrak 25,285; Parlakimedi 22,708; Birmitrapur 20,301; Bariyada 20,301.

# Punjab \*

50,000-1,00,000 (9)

Chandigarh Town Group 99,262; Ferozepur 97,932; Rohtak 88,193; Jagadhri Town Group 84,337; Karnal 72,109; Panipat 67,026; Hissar 60,222; Bhiwani 58,194; Pathankot 54,810; Bhatinda 52,253; Batala 51,300; Hoshiarpur 50,739; Faridabad 50,709.

20,000-50,000 (31)

Moga 47,779; Abohar 46,863; Sonepat 45,882; Simla 42,597; Nangal Town Group 42,359; Malerkotla 39,543; Phagwara 37,929; Gurgaon 37,868; Rewari 36,994; Kaithal 34,890; Hansi 33,712; Sirsa 33,363; Kot Kapura 32,021; Fazilka 32,015; Muktsar 30,765; Nabha 30,603; Jagraon 29,617; Kapurthala 29,334; Sangrur 28,344; Rajpura 27,925; Palwal 27,863; Gurdaspur 27,665; Faridkot 26,735; Khanna 24,416; Jind 24,216; Narnaul 23,959; Mansa 22,473; Sunam 21,408; Barnala 21,354; Tarn Taran 20,961; Malout 20,774.

# Rajasthan

50,000-1,00,000 (4)

Alwar 72,707; Ganganagar 63,854; Beawar 53,931; Sikar 50,636.

20,000-50,000 (22)

Bharatpur 49,776; Bhilwara 43,499; Tonk 43,413; Churu 41,727; Pali 33,303; Sardarshahar 32,072; Sujangarh 30,761; Barmer 27,600; Dholpur 27,412; Fatehpur 27,039; Ratangarh 26,631; Bundi 26,478; Kishangarh 25,244; Jhunjhunu 24,962; Nawalgarh 24,911; Nagaur 24,296; Nasirabad 24,148; Ladnu 23,825; Karauli 23,696; Baran 22,764; Gangapur 22,591; Sawai Madhopur 20,952; Hindaun 20,237.

#### Tamil Nadu

50,000—1,00,000 (22)

Kumbakonam Town Group 96,746; Dindigal 92,947; Kancheepuram 92,714; Valparai 80,023; Tiruppur 79,773; Cuddalore 79,168; Kallidaikurichi Town Group 75,657; Erode 73,762; Rajapalayam 71,203; Mount

Alandur Town Group 63,702; Nagapattinam Town Group 61,305; Tirupparan-Kundram Town Group 57,748; Palni Town Group 56,909; Aruppukkotai Town Group 55,977; Virudhunagar 54,827; Pollachi 54,369; Coonoor Town Group 52,992; Mayooram 51,363; Karur 50,564; Pudukkotal 50,488; Gudiyatam 50,384; Ootacamund 50,140.

## 20,000-50,000 (60)

Ranipet Town Group 48,003; Vaniambadi Town Group 47,918; Golden Rock (Ponmalaipatti) Town Group 47,070; Srivilliputtur 46,816; Tiruvannamalai 46,441; Bodinayakanur 44,914; Karaikudi 43,698; Villupuram 43,496; Srirangam 41,949; Kadayanallur 41,249; Chidambaram 40,694; Ambur 39,455; Tiruvattiyur Town Group 37,764; Mettupalayam 36,496; Periyakulam 36,335; Paramakudi Town Group 34,521; Tenkasi 34,403; Tindivanam 34,342; Tambaram Town Group 34,329; Mannargudi 33,558; Kovilpatti 33,305; Cumbum 32,517; Arni 31,351; Tiruppattur 30,799; Sivakasi 30,690; Arkonam 30,658; Puliyangudi 30,648; Tiruvarur 30,137; Attur 29,018; Udumalpet 28,345; Kayalpattinam Town Group 28,336; Dharmapuri 28,031; Mettur 27,698; Gobichettipalayam 27,004: Ramanathapuram 26,890; Dharapuram 26,490; Chingleput 25,977; Udangudi Town Group 25,946; Anamalai Town Group 25,587; Devakottai 25,524; Uthamapalayam Town Group 25,427; Komarapalayam 24,757; Pattukottai 24,726; Gudalur 24,635; Allinagaram 24,606; Edappadi 24,366; Sankaranayinar Koil 24,089; Rasipuram 23,871; Krishnagiri 23,827; Erode 2,766; Tiruchendur Town Group 22,752; Bhavani 22,713; Nellikuppam 22,168; Tiruchengode 21,386; Nelliyalam Town Group 20,877; Kotagiri Town Group 20,737; Chinnamanur 20,586; Shencottah 20,528; Seithur Town Group 20,403; Lalgudi Town Group 20,009.

#### Uttar Pradesh

50,000-1,00,000 (16)

Firozabad 98,611; Farrukhabad-cum-Fatehgarh Town Group 94,591; Faizabad Town Group 88,296; Muzaffarnagar 87,622; Ghaziabad 70,438; Etawah 69,681; Amroha 68,965; Sambhal 68,940; Hathras 64,045; Jaunpur 61,851; Hardwar Town Group 59,960; Budaun 58,770; Pilibhit 57,527; Bahraich 56,033; Hapur 55,248; Sitapur 53,884.

# 20,000-50,000 (51)

Maunath Bhanjan 48,785; Chandausi 48,557; Roorkee Town Group 45,801; Bulandshahr 44,163; Gonda 43,496; Khurja 41,491; Basti 38,403; Ballia 38,216; Haidwanicum-Kath Godam 38,032; Banda 37,744; Kasganj 37,559; Ghazipur 37,147; Hardoi 36,725; Bara Banki Town Group 34,334; Najibabad 34,310; Bijnor 33,821; Mainpuri 33,610; Tanda 32,687; Azamgarh 32,391; Lakhimpur 32,285; Balrampur 31,776; Nagina 30,427; Deoband 29,980; Rae Bareli 29,940; Unnao 29,780; Orai 29,587; Deoria 28,407; Shahabad 28,399; Fatehpur 28,323; Kairana 26,454; Samli 26,397; Sikandrabad 26,290; Sultanpur 26,081; Lalitpur 25,220; Vrindaban 25,138; Mahoba 24,878; Etah 24,719; Kannauj 24,646; Modinagar 24,266; Kashipur 24,258; Tilhar 23,936; Konch 23,708; Shikohabad 23,458; Sahaswan 23,293; Baraut 22,818; Chandpur 22,017; Bela 21,397; Kiratpur 21,127; Mughalsarai Town Group 21,086; Mawana 20,677; Bhadohi 20,302; Mau Ranipur 20,224.

#### West Bengal

50,000-1,00,000 (23)

Panihati 93,749; Serampur 91,521; Hooghly-Chinsurah 83,104; Titagarh 76,429; Nabadwip 72,861; Krishnagar

<sup>\*</sup> Composite State.

70,440; Kanchrapara 68,966; Chandernagore 67,105; Uluberia Town Group 66,299; Siliguri 65,471; Ashoknagar Town Group 64,716; Barrackpur 63,778; Kasbah Town Group 62,935; Bankura 62,833; Berhampur 62,317; Barasat-Nabapally Town Group 61,621; Midnapur 59,532; Naihati 58,457; North Barrackpur 56,683; Ranaghat Town Group 55,100; Basirhat 53,943; Halisahar 51,423; Santipur 51,190.

# 20,000-50,000 (46)

Jalpaiguri 48,738; Purulia 48,134; Sankrail Town Group 47,174; English Bazar 45,900; Bansberia 45,463; Baidyabati 44,312; Champdani 42,129; Cooch Behar 41,922; Durgapur Steel Project Area Town Group 41,696; Bangaon 41,082; Batanagar Town Group 40,656; Darjeeling 40,651; Budge Budge 39,824; Rishra 38,535; North Dum Dum 38,140; Bhadreswar 35,489; Chakdah 35,089; Kulti 34,280; Raiganj 32,290; Kotrung 31,031; Vishnupur 30,958; Domjur Town Group 30,843; Raniganj 30,113; Konnagar 29,443; Garulia 29,041; Chittaranjan 28,957; Alipur Duar 28,927; Khardah 28,362; Balurgarh 26,999; Kalimpong 25,105; Rajpur 24,812; Jangipur 24,201; Jiaganj Azimganj 23,675; Baduria 23,573; Bolpur 23,355; Suri 22,841; Kalna 22,603; Kalyani-Kataganjand Gokulpur Town Group 22,317; Contai 22,094; Uttarpara 21,132; Ghatal 21,062; New Barrackpur Colony 20,871; Katwa 20,621; Jagacha Town Group 20,094; Dum Dum 20,041; Mainguri Town Group 20,014.

# Manipur

50,000-1,00,000 (1)

Imphal 67,717.

20,000-50,000 (Nil).

# Tripura

50,000-1,00,000 (1)

Agartala 54,878.

20,000-50,000 (Nil).

#### Pondicherry

50,000—1,00,000 (Nil). 20,000—50,000 (2)

Pondicherry 40,421; Karaikal 22,252.

In Andaman and Nicobar Islands, Himachal Pradesh@ and Nagaland towns have population of only less than 20,000.

# LITERACY (1961)

State-wise figures for literacy per 1,000 population with figures for males and females in brackets respectively are:—

States: Andhra Pradesh 212 (302; 120); Assam 274 (373; 160); Bihar 184 (298; 69); Gujarat 305 (411; 191); Jammu & Kashmir 110 (170; 43); Kerala 468 (550; 389); Madhya Pradesh 171 (270; 67); Tamil Nadu 314 (445; 182); Maharashtra 298 (420; 168); Mysore 254 (361; 142); Orissa 217 (347; 86); Punjab† 242 (330; 141); Rajasthan 152 (237; 58); Uttar Pradesh 176 (273; 70); West Bengal 293 (401; 170).

Union territories and other areas: Andaman 336 (424; 194); Delhi 527 (608; 425); Himachal Pradesh@ 171 (272; 62); Laccadive 233 (358; 110); Manipur 304 (451; 159); Tripura 202 (296; 102); Dadra and Nagar Haveli 95 (147; 41); Goa, Daman & Diu\* N.A.; NEFA 72 (123; 15); Nagaland 179 (240; 113); Pondicherry 374 (504; 246).

# Area, Population and Literacy of States and Districts in each State

	e gay		Area in		Total Populatio	Literacy		
States/Dist	ricts		sq. miles	Total	Males	Females	Males	Females
INDIA			1,178,995	439,235,082	226,293,620	212,941,462	77,828,163	27,505,118
Andhra Pradesh	181	VIE	106,286	35,983,447	18,161,671	17,821,776	5,482,333	2,144,194
Srikakulam			3,901	2,340,878	1.149.447	1,191,431	283,893	83,831
Visakhapatnam	2.76	4	5,200	2,290,759	1,142,647	1.148.112	286,025	106,946
East Godavari	. 000		4,181	2,608,375	1,305,003	1,303,372	435,878	242,343
West Godavari	. 880		2,980	1,978,257	993,020	985,237	378 492	230,071
Crishna			3,378	2,076,956	1,058,323	1,018,633	410,675	236,381
Juntur			5,802	3,009,900	1,522,865	1,487,035	568,616	263,843
Tollows	- 530		7,974	2,033,679	1,018,457	1,015,222	306,172	123,573
Chittoor		思想	5,855	1,914,639	978,453	936,186	308,968	91,912
uddapah	1,775	THE PARTY NAMED IN	5,924	1,342,015	685,597	656,418	230,571	61,383
Anantapur	- 968		7,385	1,767,464	908,254	859,210	287,676	76,580
Kurnool	. 0.39	100	9.277	1,908,740	964,554	944,186	317,719	90,879
Iahbubnagar			7,119	1,590,686	794,041	796,645	170,774	43,298
Hyderabad		3.4	2,988	2,062,995	1.056,578	1,006,417	484,760	238,240
Todal-	* * THE	2000	3,711	1,227,361	614,852	612,509	143,342	29,042
Nizamabad	••	1987	3,105	1,022,013	509,183	512,830	116,998	29,403
dilabad	1.5	Alexa I	6,306	1,009,292	509,550	499,742	95,571	22,716
Carimnagar	0.00		4,582	1,621,515	812,491	809,024	171,958	37,140
AZ as as a second		10000	4,988	1,545,435	790,739	754,696	187,535	50,009
Chammam	1000		6,147	1,057,542	539,994	517,548	118,995	42,079
Valgonda	2.99		5,483	1,574,946	807,623	767,323	177,715	44,525
1ssam		Mary .	47,091	11,872,772	6,328,129	5,544,643	2,361,724	886,331
Zoolnom	14000	1. 1. 1.3		1,543,892	812,723	731,169	246,495	78,677
Communication of the contract	***		4,007	2,062,572	1,109,608	952,964	435,171	129,136
Camrup	"		3,804	1,289,670	694,927	594,743	220,195	75,268
Darrang			3,369		853,879	709,963	331,860	116,325
Akhimpur Nowgong			4,926 2,167	1,563,842 1,210,761	645,690	565,071	235,128	94,89

<sup>\*</sup> Figures are not available.

<sup>+</sup> Composite States.

<sup>@</sup> Before reorganisation in Nov. 1986.

Area, Population and Literacy of States and Districts in each State-Contd.

States (D. 7. 1. 1.	Area in	Т	otal Population		Lite	eracy
States/Districts	sq. miles	Total	Males	Females	Males	Females
Assam—Continued.						
Sibsagar	3,453	1,508,390	808,935	699,455	364,315	153,307
Cachar	2,688	1,378,476	722,487	655,989	290,629	103,679
Raro Hills@	3,119	307,228	156,740	150,488	40,554	20,780
Jnited Khasi and Jaintia Hills	5,546	462,152	240,548	221,604	87,835	57,928
United Mikir and North	0,010	102,102	210,010	,	01,000	
Cachar Hills@	5,878	279,726	150,127	129,599	38,799	9,98
Mizo Hills	8,134	266,063	132,465	133,598	70,743	46,35
Bihar	67,196	46,455,610	23,301,449	23,154,161	6,950,967	1,596,878
Patna	2,164	2,949,746	1,522,687	1,427,059	662,562	185,020
Jaya	4,766	3,647,892	1,814,674	1,843,218	571,583	127,64
Shahabad	4,408	3,218,017	1,616,732	1,601,285	583,017	117,74
Saran	2,669	3,584,918	1,677,779	1,907,139	544,737	109,34
Champaran	3,553	3,006,211	1,519,803	1,486,408	327,653	68,07
Muzaffarpur	3,018	4,118,398	2,011,539	2,106,859	569,657	137,39
Darbhanga	3,345	4,413,027	2,142,880	2,270,147	607,878	131,58
Monghyr	3,975	3,387,082	1,702,709	1,684,373	517,993	125,03
Bhagalpur	2,183	1,711,136	877,029	834,107	272,677	74,84
Saharsa	2,093	1,723,566	886,440	837,126	206,935	34,47
urnea	4,259	3,089,128	1,607,276	1,481,852	410,158	87,98
Santal Parganas	5,470	2,675,203	1,351,149	1,324,054	325,175 136,976	66,03 24,25
Palamau Hazaribagh	4,925	1,187,789	598,600 1,203,503	589,189 1,192,908	293,149	53,65
01:	7,016 7,047	2,396,411 2,138,565	1,076,251	1,062,314	313,973	95,27
Dhanhad	1,114	1,158,610	646,597	512,013	240,563	54,71
Singhbhum	5,191	2,049,911	1,045,801	1,004,110	366,281	103,79
Fujarat	72,245	20,633,350	10,633,902	9,999,448	4,373,373	1,909,883
Jamnagar	3,944	828,419	424,300	404,119	154,352	65,017
Rajkot	4,588	1,208,519	615,661	592,858	261,966	121,613
Surendranagar	4,006	663,206	341,301	321,905	115,448	47,178
Bhavnagar	4,652	1,119,435	577,729	541,706	221,457	85,58
Amreli	1,545	667,823	340,623	327,200	132,136	60,94
Junagadh	4,186	1,245,643	638,296	607,347	226,187	77,939
Kutch	17,060	696,440	341,224	355,216	114,056	60,03
Banaskantha	4,037	996,144	511,951	484,193	104,695	22,09
Sabarkantha	2,843	918,587	470,224	448,363	170,226	50,49
Mehsana	4,324	1,689,963	858,056	831,907	391,088	182,77 299,36
Ahmedabad Kaira	3,461	2,210,199	1,188,269	1,021,930	626,280 503,735	213,26
Panah Mahala	2,621 3,486	1,977,540 1,468,946	1,039,720 758,561	937,820 710,385	220,022	62,51
Parada	2,961	1,527,326	801,026	726,300	367,596	170,18
Broach	2,986	891,969	458,125	433,844	212,535	93,02
Surat†	4,856	2,451,624	1,231,418	1,220,206	546,259	295,97
Dangs	689	71,567	37,418	34,149	5,335	1,29
Jammu & Kashmir*	86,023	3,560,976	1,896,633	1,664,343	3,21,827	70,93
Anantnag		654,368	351,932	302,436	48,166	4,42
Srinagar		640,411	346,434	293,977	71,852	21,54
Baramulla		604,659	324,672	279,987	43,541	4,45
adakh		88,651	44,972	43,679	6,911	45
Doda		268,403	141,133	127,270	20,568	2,42
Jdhampur	MAN NOTE	254,061	132,936	121,125	18,400	4,27
ammu		516,932	274,107	242,825	70,457	25,67
Kathua	_	207,430	108,899	98,531	19,432	4,45
Poonch-Rajouri	Name of Street	326,061	171,548	154,513	22,500	3,23
Kerala‡	15,002	16,903,715	8,361,927	8,541,788	4,596,205	3,322,95
annanore	2,744	1,780,294	874,667	905,627	454,489	280,540
Kozhikode	2,042	2,617,189	1,300,974	1,316,215	665,386	397,909
alghat	1,982	1,776,566	851,746	924,820	358,850	246,128

<sup>\*</sup> The area of the districts is not available. † Now split into two districts Surat and Bulsar. @ Now in Meghalaya State. ‡ A new district called Malappuram has been formed. Consequently the area of Kozhikode district has been reduced by 1,433·1 sq. miles.

Area, Population and Literacy of States and Districts in each State-Contd.

Ct. to D:	tnicto		Area in		Total Populati	on	Lite	eracy
States/Dis	tricts		sq. miles	Total	Males	Females	Males	Females
Kerala—(Contd.	)	THE R	A STATE OF	TO MAD	The state of the s		1000	VII 1 (0)-4
Trichur			1,149	1,639,862	784,736	855,126	433,028	361,754
Ernakulam	ENW L	0.000	1,270	1,859,913	931,248	928,665	538,075	402,151
Kottayam		-	2,326	1,732,880	882,580	850,300	550,809	429,464
Alleppey			698	1,811,252	893,435	917,817	568,953	459,977
Quilon	**	tot.	1,944	1,941,228	972,657	968,571	562,044	418,416
Trivandrum	••	10.79	847	1,744,531	869,884	874,467	463,631	326,607
Madhya Pradesh			171,217	32,372,408	16,578,204	15,794,204	4,481,454	1,063,408
Morena			4,489	783,348	426,061	357,287	101,069	15,457
Bhind			1,723	641,169	346,797	294,372	96,505	15,112
Gwalior			2,002	657,876	353,813	304,063	137,989	45,347 4,050
Datia		**	782	200,467	105,640	94,827	$25,786 \\ 56,245$	8,277
Shivpur Guna			3,986 4,271	557,954 595,825	295,543 313,814	262,411 282,011	69,130	13,115
Tikamgarh	100	H. 855	1,944	455,662	239,035	216,627	38,037	6,030
Chhatarpur			3,381	587,373	310,653	276,720	56,271	9,661
Panna		-100	2,716	331,257	170,942	160,315	30,966	5,068
Satna			2,823	694,370	353,430	340,940	92,945	15,292
Rewa			2,509	772,602	388,887	383,715	101,130	13,868
Shahdol			5,412	829,649	424,042	405,607	41,802	11,560
Sidhi			4,060	580,129	293,507	286,622	139,307	3,290 29,489
Mandsaur	• •		3,966	752,085	390,731	361,354 234,474	79,351 119,818	24,080
Ratlam Ujjain			1,727	483,521 661,720	249,047 344,515	317,205	23,806	35,282
The hore	•	- 250	2,360 2,615	514,384	262,695	251,689	70,232	7,310
Ohar		9 9910	3,150	643,774	328,177	315,597	202,455	16,375
ndore	2.019	2.35	1,479	753,594	400,470	353,124	65,100	85,660
Dewas			2,706	446,901	230,761	216,140	123,837	12,304
West Nimar			5,206	990,464	505,919	484,545	129,330	27,965
East Nimar			4,132	685,150	353,378	331,772	63,191	38,709
Shajapur			2,388	526,135	270,777	255,358	44,117 54,877	11,134 7,499
Rajgarh Vidisha	200		2,383	516,871	269,666 258,840	247,205 230,373	122,545	11,225
Sohowe	• •		2,839 3,600	489,213 754,684	404,785	349,899	46,133	39,538
Raisen			3,272	411,426	215,709	195,717	111,395	8,834
Hoshangabad			3,867	618,293	319,760	298,352	75,778	30,199
Betul			3,884	560,412	281,055	279,357	125,628	16,950
Sagar	- 20		3,961	796,547	414,834	381,713	64,545	36,789
Damoh			2,827	438,343	223,067	215,276	271,714	16,329
Jabalpur			3,918	1,273,825	862,045	611,780	CO 740	91,942 20,115
Narsimhapur			1,979	412,406	211,238	201,168 343,209	68,749 79,923	17,190
Mandla Chhindwara			5,127	684,503	341,294 396,672	388,863	102,909	25,110
eoni			4,565 3,376	785,535 523,741	261,060	262,681	71,290	18,023
Balaghat			3,573	806,702	401,447	405,255	137,504	28,985
Surguja			8,626	1,036,738	530,166	506,572	81,590	13,276
Bilaspur			7,615	2,021,793	998,738	1,023,055	304,740	63,788
Raigarh			5,064	1,041,226	517,958	523,268	128,831	25,827
Durg			7,576	1,885,236	946,154	939,082	277,618	58,861 65,821
Raipur			8,214	2,002,004	982,679	1,019,325	304,433 68,066	12,582
Bastar	**		15,124	1,167,501	582,403	585,098	08,000	
Maharashtra	• •		118,717	39,533,718	20,428,882	19,214,836	8,588,657	3,204,413
reater Bombay		HUNCE	186	4,152,056	2,496,176	1,665,880	1,624,958	808,246
hana			3,658	1,652,678	861,117	791,561	353,853	150,852
Colaba		A Miles	2,716	1,058,855	514,534	544,321	187,138	72,943
katnagiri			5,025	1,827,203	816,804	1,010,399	344,332	176,206 123,640
Vasik			6,020	1,855,246	953,531	901,715	375,266	82,673
Dhulia	0		5,022	1,351,236	686,942	664,294	257,120 444,864	155,480
Jalgaon			4,573	1,765,047	902,001	863,046 870,656	356,299	113,430
Ahmednagar			6,586	1,775,969	905,313 1,268,710	1,198,170	585,911	260,489
Poona			6,033	2,466,880	1,208,710	1,100,110	000,011	

Area, Population and Literacy of States and Districts in each State—(Contd).

grade (Dr. 1)	Area in	To	otal Population		Lite	racy
States/Districts	sq. miles	Total	Males	Females	Males	Females
Maharashtra—(Contd).						
Satara	4,041	1,430,105	698,555	731,550	331,164	154,768
langli	3,299	1,230,716	628,754	601,962	263,344	82,136
holapur	5,809	1,860,119	960,655	899,464	354,396	113,36
Kolhapur	3,141	1,596,493	811,693	784,800	325,408	94,48
Aurangabad	6,314	1,532,341	781,635	750,706	223,930	50,04
Parbhani	4,584	1,206,236	611,787	494,449	154,618	30,83
Shir Nanded	4,268	1,001,466	508,827	492,693 531,700	125,170 136,052	25,96
	4,800 5,504	1,079,674 1,477,656	547,974 758,235	719,421	208,685	27,48 43,32
01.31	0 777	1,059,698	541,026	518,672	222,652	63,39
10010	4.00=	1,189,354	613,832	575,522	275,046	96,03
Amravati	4 700	1,232,780	637,861	494,919	292,861	122,37
Teotmal	5,246	1,098,470	557,010	541,460	196,839	61,04
Vardha	2,429	634,277	322,894	311,383	140,253	52,86
Nagpur	3,842	1,512,807	784,161	728,646	376,843	154,90
Bhandara	3,582	1,268,286	635,174	633,112	253,422	51,86
handa	9,200	1,238,070	623,681	614,389	178,233	35,60
Iysore	74,210	23,586,772	12,040,923	11,545,849	4,352,428	1,638,15
Sangalore	3,081	2,504,462	1,306,230	1,198,232	581,331	278,67
'umkur	4,096	1,367,402	699,191	668,221	237,598	71,99
Chitradurga	4,185	1,094,284	563,988	530,296	207,791	66,78
Kolar	3,188	1,290,144	655,645	634,499	202,808	71,90
Bellary	3,825	915,261	466,923	448,338	150,165	41,22
Iysore	4,617	1,671,399	856,921	814,478	252,792	103,20
outh Kanara	3,249	1,563,837	751,229	812,608	310,890	194,95
loorg	1,587	322,829	173,338	149,491	75,378	41,69
Hassan	2,638	895,847	455,055	440,792	161,685	56,35
Shimoga	4,066	1,017,368	536,103	481,265	205,489	79,88
Chikmagalur	2,787	597,305	313,795	283,510	118,081	46,35
Mandya Belgaum	1,924	899,210	457,143	442,067	120,912	34,73
7	5,163	1,983,811	1,016,564	967,247	385,260	131,07 86,27
Touth Vanne	6,594	1,660,178	840,180	819,998	319,622 153,744	76,83
Diamon	F 000	689,549 1,950,362	354,344 999,904	335,205 950,558	474,197	176,30
Gulbarga	6,332	1,399,457	703,447	696,010	169,902	36,18
Bidar	2,119	663,172	336,480	326,692	80,826	15,25
Raichur	5,491	1,100,895	554,543	546,352	143,957	28,45
Orissa	60,164	17,548,846	8,770,586	8,778,260	3,042,004	759,24
Kalahandi	= 000	1,009,654	499,646	510,008	97,784	13,83
Koraput	5,099	1,498,271	753,398	744,873	102,325	22,11
Sambalpur	6,763	1,508,686	756,163	752,523	281,153	64,81
Bolangir	3,439	1,068,686	534,219	534,467	133,255	22,65
Baudh-Khondmals	4,284	514,427	255,685	258,742	79,990	11,02
Gunjam	4,824	1,872,530	899,329	973,201	319,165	80,04
Sundargarh	3,751	758,617	396,214	362,403	120,487	29,05
Dhenkanal	4,177	1,028,935	516,843	512,092	200,909	40,42
Puri	3,999	1,865,439	930,663	934,776	426,113	124,07
Ceonjhar	3,206	743,315	375,090	368,225	109,699	21,55
Cuttack	4,236	3,060,320	1,531,244	1,529,080	699,090	213,46
Iayurbhanj	4,022	1,204,043	604,756	599,287	143,545 328,489	27,13 89,03
Daniel La	2,500	1,415,923	717,340	698,583		
Finne (2)	47,205	20,306,812	10,891,576	9,415,236	3,591,177	1,326,21 52,87
1-1-1-0	5,380	1,540,508	827,658	712,850	215,103 243,192	59,75
(	2,330	1,420,391	751,225	669,166		48,68
arnal@	2,367 3,062	1,240,706 490,430	659,432 804,769	581,274 685,661	205,510 206,871	66,12
mbala@	3,062	1,373,477	758,127	515,350	291,984	120,12
imla*	254	112,653	65,078	47,575	35,933	13,20
angra*	4,904	1,062,518	534,816	527,702	189,766	59,64
ahaul & Spiti*	4,714	20,453	11,519	8,934	3,247	332

<sup>\*</sup> Now in Himachal Pradesh.

<sup>†</sup> Composite State.

<sup>@</sup> Now in Haryana State.

133

Area, Population and Literacy of States and Districts in each State—(Contd).

States Districts	Are	a in		Total Populatio	n	Lite	racy
States/Districts	sq. n	niles	Total	Males	Females	Males	Females
Punjab—Continued.							
Hoshiarpur	A 9	2,210	1,233,493	649,343	584.150	256,060	99,623
Jullundur		,335	1,227,367	655,493	571,874	277,066	135,944
Ludhiana		1,324	1,022,519	551,304	471,215	242,238	129,012
Ferozepur		3,882	1,619,116	876,373	742,743	266,501	98,687
Amritsar	1	1,978	1,534,916	827,821	707,095	304,729	151,413
Gurdaspur	Jan. 1	1,360	987,994	530,107	457,887	178,186	71,358
Kapurthala		630	343,778	182,299	161,479	68,475	32,447
Bhatinda		2,706	1,055,177	574,549	480,628	153,964	45,698 53,623
Sangrur		3,031	1,424,688	774,470	650,218	181,252 184,488	75,731
Patiala Mahendragarh@		2,261 1,343	1,048,778 547,850	573,243 283,950	475,535 263,900	86,702	11,932
Rajasthan		2,152	20,155,602	10,564,082	9,591,520	2,504,983	560,585
Ganganagar		3,000	1,037,423	563,231	474,192	143,039	31,502
Bikaner		),561	444,515	232,699	211,816	67,461	26,427
Churu	6	3,410	659,011	340,048	318,963	93,426	26,150
Jhunjhunu		2,283	719,650	370,457	349,193	115,418	19,257
Alwar		3,241	1,090,026	576,234	513,792	141,228	25,015 23,172
Bharatpur		3,127	1,149,883	624,090	525,793	151,745 106,203	13,396
Sawai Madhopur		1,070	943,574	504,351	439,043 895,622	276,527	74,751
Jaipur		5,393	1,901,756	1,006,134 417,763	402,523	109,860	18,996
Sikar Ajmer		3,027 3,283	820,286 976,547	510,446	466,101	183,692	63,405
Tonk	6	2,765	497,729	260,589	237,140	47,449	9,173
Jaisalmer		1,847	140,338	77,871	62,467	10,156	1,227
Jodhpur		3,772	885,663	469,147	416,516	126,432	38,014
Nagaur		5,884	934,948	480,586	654,362	101,602	22,343
Pali		,792	805,682	414,615	391,067	90,718	19,232
Barmer		),170	649,794	347,811	301,983	43,571	4,905
Jalore	4	,916	547,072	285,081	261,991	38,683	4,815 10,654
Sirohi		,979	352,303	180,853	171,450	38,419	14,623
Bilwara		,034	865,797	454,235	411,544 708,925	82,734 162,302	36,778
Udaipur		5,812	1,464,276	755,351 367,012	343,120	76,642	13,062
Chittorgarh		1,033	710,132 406,944	204,342	202,602	35,363	7.110
Dungarpur Banswara	-	,460	475,245	241,102	234,143	33,810	7,972
Pund:	0	2,148	338,010	178,193	159,817	33,793	6,261
Kota		794	848,389	447,181	401,208	103,285	31,349
Jhalawar		,405	490,609	254,462	236,147	55,605	10,996
Tamil Nadu	50	,331	33,686,953	16,910,978	16,775,975	7,532,323	3,048,293
Madras Corporation		49	1,729,141	909,701	819,440	633,203	395,123
Chingleput		,031	2,196,412	1,201,951	1,075,821	450,538	162,001
North Arcot		,942	3,146,326	1,581,826	1,564,500	587,133	190,696
South Arcot	4	,204	3,047,973	1,535,928	1,512,045	622,886	191,293 187,906
Salem		,028	3,804,108	1,923,885	1,880,223	568,613	291,116
Coimbatore	6	3,018	3,557,471	1,809,591	1,747,880	783,113 103,211	42,843
Nilgiris		984	409,308	213,833 1,607,229	195,475 1,603,998	773,408	298,467
Madurai		,910	3,211,227	1,588,249	1,601,649	709,822	245,105
Firuchirapalli	9	,514	3,190,078 3,245,927	1,610,241	1,635,686	783,783	305,072
Fanjavur	3	1,740 1,849	2,421,788	1,175,769	1,246,019	568,347	209,212
Trumpolyel:	A CONTRACTOR OF THE PARTY OF TH	,419	2,730,279	1,330,220	1,400,059	664,923	328,396
Kanya Kumari	4	643	996,915	503,735	180,493	283,294	200,883
Uttar Pradesh	113	,654	73,746,401	38,634,201	35,112,200	10,546,795	2,466,388
Uttar Kashi		,018	122,836	62,534	60,302	17,962	1,179
Chamoli		,525	253,137	120,092	133,045	49,766	5,410
Pithoragarh		,788	263,579	128,292	135,287	53,605	7,943 3,797
Tehri Garhwal		,745	347,736	157,909	189,827	51,817	15,866
Garhwal	2	,106	482,327	222,892	259,435	96,681	18,332
Almora	2	,713	633,407	304,459	328,948 240,123	117,085 122,706	34,487
Naini Tal	2	,635	574,320	334,197	240,125	122,100	

<sup>@</sup> Now in Haryana State.

Area, Population and Literacy of States and Districts in each State—(Contd).

	Sagley		Area in	of my simes	Total Populati	on	Lite	eracy
States/Dia	stricts		sq. miles	Total	Males	Females	Males	Females
Uttar Pradesh-	Contin	ued.						
Bijnor		10.	1,866	1,190,987	634,468	556,519	165,788 209,246	44,675 61,233
Moradabad		010	2,289	1,973,530	1,058,394 768,583	915,136 643,074	109,250	26,768
Budaun	100		1,998 895	1,411,657 701,537	374,945	326,592	67,206	17,491
Rampur Bareilly			1,591	1,478,490	806,220	672,270	170,139	53,968
Pilibhit		13	1,352	616,225	334,599	281,626	66,783	15,815
Shahjahanpur		2	1,762	1,130,256	618,900	511,356	119,859	29,815
Dehra Dun		10000	1,201	429,014	242,987	186,027	116,289	49,942
Saharanpur			2,132	1,615,478	885,109	730,369	249,127	74,620
Muzaffarnagar			1,683	1,444,921	785,031	659,890	195,116	45,835
Meerut			2,322	2,712,960	1,472,006	1,240,954	484,629	124,089 46,704
Bulandshahr	••10		1,887	1,737,397	924,150	813,247	255,721 282,958	66,714
Aligarh	******	200	1,941	1,765,275 1,071,279	948,568 582,894	816,707 488,385	191,420	38,604
Mathura Agra	11.0		1,467 1,861	1,862,142	1,012,056	850,086	345,040	102,219
Etah	Total To	1	1,715	1,299,674	696,924	602,750	175,392	39,945
Mainpuri			1,680	1,180,894	634,951	545,943	187,827	45,328
Farrukhabad	1	100	1,645	1,295,071	704,387	590,684	215,474	61,548
Etawah		let	1,669	1,182,202	639,974	542,228	216,706	54,438
Kanpur		000	2,357	2,381,353	1,314,673	1,066,680	546,643	203,132
Fatehpur			1,625	1,072,940	560,474	512,466	151,949	26,917
Allahabad		17.00	2,801	2,438,376	1,263,981	1,174,395	384,877	92,013
Jhansi			3,885	1,087,479	573,703	513,776	174,933	42,649
Jalaun			1,764	663,168	351,704	311,464	125,138	26,010 19,149
Hamirpur			2,775	794,449	419,217	381,532	109,836 126,276	15,472
Banda Kheri			2,950	953,731	500,573	453,158	127,465	23,572
0:1		••	2,972	1,258,433	679,011 865,242	579,422 742,815	181,201	31,803
Hardoi			2,236 2,320	1,608,057 1,573,171	847,161	726,010	201,432	41,324
Unnao			1,774	1,226,923	648,560	578,363	152,542	33,185
Lucknow	100	Met.	977	1,338,882	728,214	610,668	284,900	119,394
Rae Bareili			1,758	1,314,949	669,113	645,836	148,890	24,487
Bahraich			2,620	1,499,929	790,492	709,437	156,761	19,284
Gonda		100	2,829	2,073,237	1,072,818	1,000,419	210,920	32,548
Bara Banki			1,714	1,414,547	746,738	667,809	146,120	24,162
Faizabad			1,705	1,633,359	824,004	809,355	194,652	39,076
Sultanpur			1,713	1,412,984	700,661	712,323	158,932	24,111
Pratapgarh			1,458	1,252,196	607,165	645,031	150,777	20,404 39,977
Basti			2,821	2,627,061	1,348,124	1,287,937	266,768	64,203
Gorakhpur Deoria		2	2,439	2,565,182	1,297,297	1,267,885	339,162 289,389	46,000
Azamgarh	**		2,087	2,375,075	1,186,527	1,188,548	313,253	78,739
Jaunpur			2,222 1,543	2,408,052 1,727,264	1,185,008 838,028	1,223,044 889,236	250,725	46,558
Ballia	1		1,183	1,335,863	656,347	679,516	205,591	53,165
Ghazipur		100	1,306	1,321,578	654,246	667,332	189,255	48,300
Varanasi	1.380		1,965	2,362,179	1,211,588	1,150,591	446,281	110,859
Mirzapur		P. Divis	4,369	1,249,653	644,311	605,342	178,535	33,121
West Bengal			33,829	34,926,279	18,599,144	16,327,135	7,454,006	2,771,658
Darjeeling							134,516	44,776
Jalpaiguri	1.0/.0. IV	2.18	1,160 2,407	624,640 1,359,292	335,036	289,604 625,953	198,519	62,682
Cooch-Behar	10.00		1,289	1,019,806	733,339 539,694	408,112	169,684	44,486
West Dinajpur			2,052	1,323,797	694,372	629,425	180,238	45,589
Malda	1		1,436	1,221,923	621,990	599,933	133,533	35,010
Murshidabad			2,056	2,290,010	1,160,283	1,129,727	272,605	94,396
Nadia			1,514	1,713,324	879,430	833,894	314,703	152,093
24-Parganas			5,285	6,280,915	3,366,805	2,914,110	1,476,757	563,240
Calcutta			40	2,927,289	1,815,791	1,111,498	1,154,018	581,443
Howrah			575	2,038,477	1,127,392	911,085	545,811	206,517
Hooghly	7		1,216	2,231,418	1,179,267	1,052,151	543,809	229,483
Burdwan			2,716	3,082,846	1,658,976	1,423,870	653,474	258,361
Birbhum			1,757	1,446,158	732,922	713,236	237,655	81,792 80,172
Bankura		F	2,653	1,664,513	840,423	824,090	304,019	80,172

Area, Population and Literacy of States and Districts in each State-(Concld).

States/Districts	Area in		Total Populati	on	Lit	eracy
States/Districts	sq. miles	Total	Males	Females	Males	Females
West Bengal—(Contd.)			The tropic			14 - 17 1 - 411
Midnapur Purulia	5,258 2,415	4,341,855 1,360,016	2,240,073 689,351	2,117,782 670,665	926,489 208,176	257,814 33,803
Union Territories and other areas:						
Andaman & Nicobar						
Islands	3,215	63,548	39,304	24,244	16,675	4.69
Delhi	573	2,658,612	1,489,378	1,169,234	904,801	497,49
Himachal Pradesh	10,885	1,351,144	702,697	648,447	191,139	40,52
. Chamba	3,131	210,579	110,700	99,879	19,482	4,06
. Mandi	1,523	384,259	192,687	191,572	57,600	13,01
. Bilaspur	448	158,806	81,363	77,443	25,798	5,10
. Mahasu	2,171	358,969	189,046	169,923	57,540	11,88
Sirmur	1,095	197,551	108,093	89,458	25,216	5,67
. Kinnaur	2,517	40,980	20,808	20,172	5,503	78'
Laccadive, Minicoy and						
Amindivi Islands	11	24,108	11,935	12,173	4,273	1,337
Lanipur	8,628	780,037	387,058	392,979	174,656	62,620
ripura	4,036	1,142,005	591,237	550,768	175,060	56,128
Dadra and Nagar Haveli	189	57,963	29,524	28,439	4,342	1,15
doa, Daman & Diu	1,426	626,978	302,953	324,025		10 - 10 - 3 -
V.E.F.A	31,438	336,558	177,680	158,878	21,879	2,38
Vagaland	6,366	369,200	191,027	168,173	45,917	20,200
. Kohima	2,374	108,924	57,704	51,220	17,239	5,53
. Mokokehung	1,924	126,001	64,366	61,635	23,870	13,46
. Tuensang	2,068	134,275	68,957	65,318	4,808	1,200
Pondicherry	185	369,079	183,347	185,732	92,384	45,76

# WORKING CLASS-SCH. CASTES & SCH. TRIBES

Statewise population of Scheduled Castes & Scheduled Tribes Workers (male and female) respectively is:—

Sch. Castes: Andhra Pradesh 2,512,325; 2,461,291; Assam 389,271; 343,485; Bihar 3,218,935; 3,317,940; Gujarat 693,436; 673,819; Jammu & Kashmir 134,765; 133,756; Kerala 705,709; 716,348; Madhya Pradesh 2,155,875; 2,097,875; Tamil Nadu 3,047,613; 3,024,923; Maharashtra 1,135,191; 1,091,723; Mysore 1,586,547; 1,530,685; Orissa 1,371,410; 1,392,448; Punjab 2,208,473; 1,930,633; Rajasthan 1,747,476; 1,612,164; Uttar Pradesh 7,944,364; 7,472,881; West Bengal 3,629,182; 3,321,544.

Andaman & Nicobar Islands (Nil); Delhi 189,470; 152,085; Himachal Pradesh 191,429; 178,487; L. M. and A. Islands (Nil); Manipur 6,886; 6,490; Tripura 62,069; 57,656; Dadra and Nagar Haveli 498; 686; Goa, Daman & Diu (Nil); NEFA (Nil); Nagaland 80; 46; Pondicherry 28,804; 28,057. Total 32,963,789; 31,547,534.

Scheduled Tribes: Andhra Pradesh 670,368; 654,000; Assam 1,057,076; 1,011,288; Bihar 2,087,994; 2,116,776; Gujarat 1,398,478; 1,355,968; Jammu & Kashmir (Nil); Kerala 103,995; 104,001; Madhya Pradesh 3,334,363; 3,344,047; Tamil Nadu 129,578; 123,068; Maharashtra 1,211,605; 1,185,554; Mysore 98,337; 93,759; Orissa 2,094,753; 2,129,004; Punjab 6,964; 7,168; Rajasthan 1,198,886; 1,110,561; Uttar Pradesh (Nil); West Bengal 1,047,287; 1,016,596.

Andaman & Nicobar Islands 7,318; 6,804; Delhi (Nil); Himachal Pradesh 54,719; 53,475; L. M. & A. Islands 11,466; 11,925; Manipur 123,162; 125,887; Tripura 184,174; 175,896; Dadra & Nagar Haveli 26,002; 25,259; Goa, Daman & Diu (Nil); NEFA (Nil); Nagaland 171,233; 172,464; Pondicherry (Nil).

#### LANGUAGE

Population speaking National languages:—Hindi 13,34,35,360; Telugu 3,76,68,132; Bengali 3,38,88,939; Marathi 3,32,86,771; Tamil 3,05,62,706; Urdu 2,33,23,518; Gujarati 2,03,04,464; Kannada 1,74,15,827; Malayalam 1,70,15,782; Oriya 1,57,19,398; Punjabi 1,09,50,826; Assamese 68,03,465; Kashmiri 19,56,115 & Sanskrit 2,544.

Population speaking other Indian languages: Bihari 1,68,06,772; Rajasthani 1,49,33,016; Santali 32,47,058; Bhili 24,39,611; Gondi 15,01,431; Sindhi 13,71,932; Konkani 13,52,363; Kurukh/Oraon 11,41,804; Kumauni 10,30,254; Nepali 10,21,102; Pahari 10,15,203; Tulu 9,35,108; Garhwali 8,09,967; Mundari 7,37,037; Ho 6,46,359; Manipuri 6,36,430; Kui 5,12,161; Khandesh 4,28,126; Khasi 3,64,063; Bodo Boro 3,61,801; Garo 3,07,040; Tripuri 2,90,643; Savara 2,65,721; Munda 2,61,653; Mandeali 2,27,352; Lushai/Mizo 2,22,262; Korker 2,20,242; Kharia 1,77,159; Khond/Kondh 1,68,027; Mikir 1,54,893; Bhumiji 1,42,003; Koya 1,40,777; Miri 1,36,598; Hindustani 1,23,200; Sironauri 1,11,391 & Parji 1,09,401.

1961 Census
Speakers of Languages specified in schedule VIII of the Constitution of India

India/States	Assame	ese Bengali	Gujarati	Hindi	Kannada	Kashmiri
India	6,803,4	65 33,888,939	20,304,464	133,435,360	17,415,827	1,956,115
Andhra Pradesh		22 3,346	24,743	138,968	382,142	104
Assam	6,784,2	71 2,089,248	712	523,791	206	41
Bihar		24 1,220,800	20,068	20,580,643	674	186
Gujarat		37 3,393	18,672,722	192,407	5,222	122
Jammu & Kashmir		5 400	79	22,328	15	1,937,817
Kerala		14 670	6,989	7,327	62,187	17
Madhya Pradesh		95 52,813	129,389	25,271,723	5,232	552
Maharashtra		72 29,114	1,101,600	1,230,026	633,244	658
Mysore		21 2,583	29,296	81,836	15,371,753	23
Orissa		704 004	9,436	219,525	584	2
Punjab*	1,1		1,863	11,298,855	604	8,124
Rajasthan		71 8,807	41,833	6,714,857	371	317
Tamil Nadu		70 2,498	173,702	38,989	947,828	89
Uttar Pradesh		03 104,528	12,832	62,974,736	1,527	1,316
West Bengal	8,2		25,709	1,897,825	697	99
Union Territories & other		20,200,020				
areas	7,8	85 804,313	53,491	2,241,524	3,541	6,648
Andaman & Nicobar						
Islands		12 13,853	105	3,573	71	10
Delhi		12 28,136	6,626	2,057,241	2,001	3,043
Himachal Pradesh†		21 216	23	143,570	7	3,502
Laccadive, Minicoy &			ALTERNATION OF THE PARTY.	270,010		
Amindivi Islands			1	2	6	
Manipur		00 10,011	2	2,379	4	11
Tripura		23 744,803	40	18,607	5	3
Dadra & Nagar Haveli	-	111,000	11,327	352	7	
Goa, Daman & Diu	-	- 41	34,888	1,663	947	
Pondicherry		6 512	458	461	436	1
N.E.F.A	3,64	SAME OF THE RESIDENCE OF THE PARTY OF THE PA	9	7,037	52	76
Nagaland	3,50		9	4,486	4	1
Sikkim	. 0,0	5 660	3	2,153	î	1

<sup>\*</sup> Composite State.

1961 Census

Speakers of Languages specified in Schedule VIII of the Constitution of India—(Contd.)

India/States		Malayalam	Marathi	Oriya	Punjabi	Sanskrit	Tamil	Telugu	Urdu
India	1.	17,015,782	33,286,771	15,719,398	10,950,826	2,544	30,562,706	37,668,132	23,323,518
Andhra Pradesh		23,350	286,737	201,621	10,868	25	511,595	30,934,898	2,553,753
Assam		2,204	5,497	146,022	11,779		4,501	19,786	1,263
Bihar		7,559	5,074	302,969	72,191	129	16,177	37,222	4,149,245
Gujarat		7,785	208,192	379	14,791	99	13,264	10,602	594,670
Jammu & Kashmir		156	226	26	978,393	3	349	172	12,617
Kerala		16,065,740	18,570	59	1,157	7	527,708	44,838	9,162
Madhya Pradesh		19,924	1,259,682	389,463	111,955	384	28,141	58,426	740,185
Maharashtra		90,460	30,278,913	3,624	104,224	82	167,694	640,795	2,752,737
Mysore		305,512	1,072,419	1,172	5,390	125	859,173	2,047,379	2,034,482
Orissa		4,832	2,970	14,443,598	6,966		6,918	393,458	212,891
Punjab*		6,390	4,853	533	8,343,264	124	6,789	2,410	255,660
Rajasthan		2,213	9,183	1,408	403,975	31	3,443	1,181	509,673
Tamil Nadu		404,346	52,363	399	3,507	117	28,016,147	3,363,834	615,503
Uttar Pradesh		7,715	14,559	1,360	418,853	1,332	12,399	4,530	7,891,714
West Bengal		8,602	13,280	213,831	57,656	4	32,663	80,930	832,847
Union Territories &			20,200	210,001	01,000		02,000	00,000	
Other Areas		58,994	54,253	12,934	405,857	82	355,745	27,676	174,116
Andaman & Nicoba			01,200	12,001	400,007	02	300,140	21,010	10 to
Islands		6,673	56	129	359		5,769	3,758	1,897
Delhi	72070	9,495	7,578	734	317,333	64	22,963	5,230	153,251
Himachal Pradesht		122	30	30	85,396	0.4	48	4	6,271
Laccadive, Minicoy		E-Philippin	30	30	00,000	THE STREET	40	1 1 1 3 3	7
Amindivi Islands		20,029	5	Date of the same	1		43	5	1
Manipur		54	6	57	639		17	20	36
		3		31	039		11		
								(Continue	d on p. 141.)

<sup>\*</sup> Composite State.

<sup>†</sup> Before reorganisation in Nov. 1966.

<sup>†</sup> Before reorganisation in Nov. 1966.

# WORKING CLASS UNDER DIFFERENT CATEGORIES, 1961.†

States/	$\Gamma$ erritor	ries		Sex	Total workers	Cultivators	Agricultural labourers	In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting & Plantations, Orchards & allied industries	At Household Industry
					1	2	3	4	5
Andhra Pradesh	١			M	11,299,400	4,654,264	2,454,741	466,002	1,149,287
Andma Tradesi				F M	7,363,642 3,423,454	2,832,555 2,189,874	2,881,753 158,179	94,956 291,163	665,867 28,293
Assam	**			F	1,713,957	1,133,626	29,237	226,937	252,060
Bihar				M	12,955,406	6,926,057	2,574,239	541,511	602,958
Binar				F	6,279,156	3,435,914	1,844,236	110,672	454,942
Gujarat				M F	5,685,776 2,788,812	2,816,996 1,702,064	679,267 572,733	76,290 28,560	343,163 212,443
	a di Rini			M	1,096,940	798,444	16,764	18,247	43,040
Jammu & Kash	mir	••	••	F	426,681	354,959	1,653	7,232	52,588
Kerala				M	3,947,038	904,502	516,914	398,622	188,654
iterata			•	F	1,683,295	273,601	461,482	88,737 383,803	299,908 528,795
Madhya Pradesl	1			M F	9,981,224 6,947,953	5,932,754 4,678,754	1,397,278 1,417,922	108,484	312,600
35 1				M	11,662,264	4,744,781	2,112,617	346,798	560,014
Maharashtra	••			F	7,286,217	3,992,294	2,397,385	62,593	272,155
Mysore	0.386			M	7,029,602	3,750,685	886,072	243,595	451,206 257,504
	V. Tolk		7 2000	FM	3,696,744 5,328,366	2,055,979 3,185,128	875,038 805,009	92,481 95,978	285,734
Orissa			17.	F	2,333,163	1,167,884	498,502	36,018	245,075
Punjab‡				M	5,764,363	2,989,353	483,013	60,407	420,558
Punjabţ				F	1,336,783	1,007,378	60,782	5,743	120,291
Rajasthan		A PORTO		M F	6,141,506 3,442,334	4,205,067 2,850,012	230,193 163,438	122,737 48,344	397,504 200,678
				M	10,103,326	4,230,028	1,445,041	330,606	681,052
Tamil Nadu			AV	F	5,248,295	2,227,805	1,383,333	104,892	525,760
Uttar Pradesh				M	22,480,360	14,302,062	2,035,588	147,427	1,319,180
		100		F	6,369,781	4,126,314 3,891,551	1,225,590 1,446,721	24,432 439,010	482,566 299,904
West Bengal				M F	10,040,239 1,539,956	567,228	324,987	138,871	187,407
4 1 4 27		200		M	26,648	5,228	337	6,986	2,047
Andaman & Nic	obar Isl	lands		F	4,546	1,227	11	307	2,612
Delhi				M	778,282	34,603	5,101 2,224	6,918 1,748	13,194 3,516
				F M	76,169 443,449	20,855 334,266	7,555	8,251	27,686
Himachal Prade	sh §			F	362,038	336,323	3,777	646	17,163
Laccadive, M. &	A Tala	nda		M	6,158	135		579	4,120
Daccaurve, M. &	A. Isla	nus	•	F	6,291	141,182	1,186	574	6,185 7,291
Manipur				M F	183,127 174,793	92,996	998	231	71,875
m.				M	322,043	199,308	29,307	7,773	7,011
Tripura			***	F	115,186	81,573	3,605	4,420	18,142
Dadra & Nagar	Haveli			M	18,317	12,771 13,027	2,413 2,536	1,477 518	436 172
	20,011			F M	16,477 $24,766$	96	10	342	15
NEFA				F	1,398	57			461
Nagaland				M	115,554	91,702	1,214	492	63
		••	1.00	F	103,756	101,781 17,962	1,287 21,386	25 7,299	32 4,244
Pondicherry				M F	101,095 37,275	4,092	17,421	379	3,262
				M	129,015,653	66,406,765	17,311,474	4,003,058	7,365,650
Total (1961)				F	59,401,709	33,103,198	14,170,831	1,187,241	4,665,437
Total (1951)		Mary.		M	99,082,627	51,424,129	14,816,966 12,693,671	2,765,489 1,356,751	
		WZ	133	F	40,438,553	18,367,873	t Composite State.		ore reorganisation

M : Males. in Nov. 1966.

F : Females.

† Excludes Goa, Daman and Diu.

‡ Composite State.

6

§ Before reorganisation

# WORKING CLASS UNDER DIFFERENT CATEGORIES, 1961 †-(Contd.)

States/Territor	ries	Sex	Manufac- turing other than Household Industry	In construction	In Trade and Commerce	In Transport, Storage and Communi- cations	In other services	Non-workers
			6	7	8	9	10	11
Andhra Pradesh	WHY!	M F	387,729	174,167	590,817	233,813	1,188,580	6,862,271
		M	87,946 91,326	46,083 32,212	207,330 174,845	4,147 74,637	543,005 376,925	10,458,134 2,904,675
Assam	1000	F	12,308	1,626	9,862	975	47,326	3,830,686
Bihar		MF	385,396	99,333	448,487	227,763	1,149,665	10,346,040
		M	40,500 500,109	9,009 73,492	74,462 381,287	2,780 155,867	306,641 659,305	16,875,005 4,948,126
Gujarat		F	36,050	16,551	29,869	3,194	187,348	7,210,636
Jammu & Kashmir		M	31,298	8,470	33,065	12,491	135,121	799,693
Owning to Transmin		F	2,155	264	555	739	6,536	1,237,662
Kerala		M F	392,950 136,522	67,664 3,038	298,218	144,913	1,034,601 388,692	4,414,889 6,858,493
15 11 25 1 1		M	302,703	141,983	23,715 350,141	7,600 153,673	790,094	6,596,980
Madhya Pradesh		F	34,142	30,275	53,496	4,247	308,033	8,846,251
Maharashtra		M	1,191,921	197,445	770,659	525,464	1,312,565	8,766,618
		F	112,414	38,171	85,391	21,348	304,466	11,838,619
Mysore		M F	359,351 62,529	153,479	327,869	105,077	752,268 252,362	5,011,321 7,849,105
0.		M	72,998	36,459 29,117	63,151 111,622	1,241 49,098	693,682	3,445,220
Orissa	**	F	13,199	1,741	35,840	2,618	332,286	6,445,097
Punjab‡	000	M	338,910	135,172	380,663	141,611	814,676	5,127,213
		F	15,148	5,071	4,808	861	116,701	8,078,453
Rajasthan		M	151,184 20,841	96,908 12,254	274,232 13,925	116,975 934	546,706 131,908	4,422,576 6,149,186
Tamil Nadu		M	750,585	175,937	660,894	248,599	1,580,584	6,807,652
Tamii Nadu	100	F	97,717	29,390	97,407	5,002	776,989	11,527,680
Uttar Pradesh '		M	771,059	209,914	996,260	396,530	2,302,340	16,153,841
* 10 100		F	29,776	4,005	66,622	2,735	407,741	28 642,419
West Bengal		F	1,243,617 75,543	146,625 4,665	836,365 35,839	386,873 5,352	1,349,573 200,064	8,558,905 14,787,179
Andaman & Nicobar		M	1,145	5,426	1,065	403	4,011	12,656
Islands		F	59	16	30		284	19,698
Delhi		M	163,353	32,605	144,579	48,673	329,256	711,096
		F	6,971 6,105	2,755	2,148	896	35,056	1,093,065 259,248
Himachal Pradesh §		F	630	13,202 508	7,006 171	2,889 31	36,489 2,789	286,409
Laccadive, Minicoy &		M	343	224	109	147	501	5,777
Amindivi Islands		F	31	10	3	2	52	5,882
Manipur		M F	848	2,003	5,328	3,014	21,701	203,931
m ·		M	258 9,039	233 3,998	6,561 17,957	19 4,770	1,622 42,880	218,186 269,194
Tripura		F	1,800	102	564	9	4,971	445,582
Dadra & Nagar Haveli		M	83	229	198	111	599	11,207
	10	F	2	79	28		115	11,962
NEFA		M F	i7	1,712	407	869	21,315	5,814 6,727
Nameland		M	597	373	1,173	721	862 19,219	75,473
Nagaland	••	F	22	2	64	3	540	74,417
Pondicherry		M	15,300	3,463	10,127	3,264	18,050	82,252
	200	F	2,017	196	3,225	15	6,668	148,457
Total (1961)	2.	MF	7,168,015 788,599	1,812,830	6,824,799	2,938,441	15,184,621	96,827,914 153,064,975
Total (1051)		M	9,747,997*	242,619 1,176,649	815,246 6,157,202	64,749 2,013,778	4,363,789 10,980,417	84,247,911
Total (1951)	1300	F	2,806,449*	291,307	1,152,547	122,668	3,647,287	133,110,303

<sup>\*</sup> Includes household industries.
M: Males. F: Females.

<sup>†</sup> Excludes Goa, Daman and Diu.

<sup>‡</sup> Composite State.

<sup>§</sup> Before reorganisation in Nov. 1966.

# **POPULATION**

# POPULATION ACCORDING TO RELIGION

States/Territori	States/Territories								
	uo ette			Males	Females	Males	Females	Males	Females
	U. W.		17	1	2	3	4	5	6
A - Jhas Dandoch			R	2,781	3,106	579,779	569,632	13,607,235	13,447,431
Andhra Pradesh	May 8	• •	U	486	380	137,524	141,794	2,444,715	2,314,648
A CARLO SERVICE OF THE SERVICE OF TH			R	19,075	15,654	358,937	353,712	3,807,646	3,357,976
Assam			U	991	793	26,034	26,870	434,353	284,946
Bihar			R	424	285	220,729	224,274	18,067,465	18,184,770
Bihar		**	U	1,444	732	29,848	27,344	1,726,967	1,367,848
Aujarat			R	869	560	25,511	23,825	7,291,165	6,956,600
aujarat		**	U	1,035	721	22,571	19,121	2,184,670	1,923,620
ammu & Kashmir			R	22,886	22,972	617	557	426,715	389,85
amina a masquin	1.00	-	U	1,192	1,310	910	764	105,770	90,850
Kerala			R	20	17	1,545,783	1,538,317	4,303,121	4,458,286 753,836
Xeraia			U	178	13	252,316	250,949	767,325	13,190,84
Madhya Pradesh			R	47,959	47,181	63,848	65,381	13,586,090	1,674,895
ladily a 1 ladesii		**	U	9,279	8,946	31,958	27,129	1,973,968	
Maharashtra			R	1,092,963	1,115,900	74,578	73,427	12,270,030	12,197,123
daharashtra		••	U	307,844	272,794	219,868	192,721	4,509,242	3,554,50
/Francisco			R	4,019	3,790	123,472	118,154	8,426,702	8,204,16
Mysore		• • •	U	1,010	951	124,054	121,907	2,073,414	1,878,57
Orissa			R	170	65	82,584	89,016	8,006,392	8,122,47
Jrissa			U	115	104	16,530	12,887	552,083	442,24
			R	6,250	5,840	62,375	55,610	5,200,840	4,612,45
Punjab‡	**		U	2,171	596	17,911	13,938	1,719,450	1,397,303
			R	133	28	3,171	2,979	8,149,856	7,439,63
Rajasthan			U	232	366	8,536	8,178	1,356,956	1,186,24
			R	112	79	588,827	600,584	11,409,029	11,403,37
Tamil Nadu			U	380	206	288,272	285,271	3,816,983	3,667,73
			R	3,373	2,806	22,260	20,033	29,107,866	26,878,52
Uttar Pradesh			U	3,661	3,053	31,147	28,201	3,627,674	2,823,24
			R	41,411	41,774	63,445	58,885	10,395,381	9,740,38
West Bengal			Ū	16,240	12,828	45,578	36,622	4,277,033	3,110,55
			R	674	510	10,364	6,244	15,222	8,96
A. N. Islands			Ū	302	221	861	504	5,799	2,79
			R	66	20	213	163	156,993	133,34
Delhi			Ü	2,909	2,471	14,850	14,043	1,098,131	846,18
			R	3,483	2,737	127	74	646,387	606,47
Himachal Pradesh†			Ü	64	24	273	118	33,059	24,09
			R	201		45	11	206	5'
L. M. & A. Islands			Ü				Average State		alone wat
			R	92	212	74,402	75,444	207,860	211,22
Manipur	./40		Ü	10	11	1,368	669	30,839	31,18
			R	17,479	16,171	5,032	4,964	401,130	372,849
Cripura			Ü	46	20	28	14	49,895	44,124
			R	1	1	426	373	28,761	27,81
Dadra & Nagar Haveli			U		200			S. Harry	
			R	152	9	85.087	106,901	163,338	168,080
Joa, Daman and Diu			U	17	11	16,967	18,224	29,393	28,56
	PH I	111510	R	6	6	8,834	9,335	126,248	124,610
Pondicherry				6	7	7,165	8,612	30,295	30,07
	2 1-		U	0		,,,,,,,	SAN ENGLISH		
N.E.F.A			R	Not or	ailable				
				17	12	92,198	94,915	17,164	9,34
Nagaland			R	10	3	4,805	3,670	5,477	2,68
	The Late	1	U		1,301,621	4.093,841	4,093,196	155,875,110	150,291,88
All-India	100		R	1,287,499 352,319	308,788	1,299,538	1,239,615	32,854,503	27,481,38

Note:—R: Rural. U: Urban. † Before reorganisation in Nov. 1966. ‡ Composite State.

The percentage of religionwise population to the total population in the country and the percentage increase during 1951-61 in brackets are: Buddhists 0.74 (16.71): Christians 2.44 (27.38); Hindus 83.51 (20.29).

# **DIRECTORY & YEARBOOK**

# POPULATION ACCORDING TO RELIGION—(Contd.)

			J.	ains	N	Iuslims	8	Sikhs	Ot	hers
			Males	Females	Males	Females	Males	Females	Males	Females
	8 1 VIS		7	8	9	10	11	12	13	14
Andhra Pradesh	1-4	R	926	614	754,350		543	390	107	81
		U	3,871	3,601	624,412		4,544	3,095	104 195	745
Assam		RU	2,365 3,610	1,752 1,741	1,398,427 69,004		$3,040 \\ 3,251$	1,626 1,769	194,185 7,211	193,112 7,614
		R	3,505	3,118	2,484,098			2,731	359,171	375,521
Bihar		U	6,161	4,814	365,206		20,693	16,089	10,838	10,308
		R	79,628	91,259	429,533		1,040	632	2,476	2,641
Gujarat		U	121,252	117,615	463,251		4,641	3,333	6,260	7,196
Towns & Washing		R	401	4	1,104,304		20,014	21,427	9	1974
Jammu & Kashmir		U	865	157	200,698	169,168	12,251	9,377	1	2
Kerala		R	715	663	1,228,640		189	122	700	767
ixciala	••	U	834	755	261,349		405	106	352	307
Madhya Pradesh		R	53,390	49,683	317,681		11,444	8,311	4,628	6,715
		U	77,279	67,575	373,399		26,086	19,874	1,197	1,132
Maharashtra	100	R	101,106	94,281	687,669		2,625	1,547	1,963	1,860
Be de la constant de		R	159,536 65,059	130,749 59,788	923,805		32,343	21,102 332	45,310 75	45,968
Mysore		U	26,879	22,644	667,959 525,933		374 1,737	844	240	210
		R	447	395	65,105		1,161	375	739	641
Orissa		U	808	645	42,099		2,263	1,231	90	67
E TO SEE LE PROPERTY DE		R	6,021	5.682	189,137		3,172,130	2,742,162	531	255
Punjab*		Ū	19,479	17,572	28,483		466,716	388,121	82	11
-		R	119,556	119,102	418,008		130,112	113,000	44	53
Rajasthan		U	87,115	83,644	272,094		17,896	13,190	370	594
m 1 N - 1		R	5,962	6,238	315,661	344,304	606	178	11,389	10,083
Tamil Nadu	1000	U	9,544	6,606	456,004		1,107	676	7,102	6,202
Uttar Pradesh		R	29,867	27,755	4,153,384	3,869,952	84,526	66,063	69	23
Ottal Tladesh	•	U	33,720	30,766	1,460,644	1,304,109	75,743	57,405	267	261
West Bengal		R	2,244	1,257	3,056,151	2,943,562	2,830	1,327	17,582	19,201
Troce Bongar		U	14,921	8,513	643,190		21,128	8,899	1,210	934
A. N. Islands		R	2		2,276		56	24	1,764	1,665
		U	1	.:	1,879	1,538	89	72	15	1
Delhi		R U	94	91	3,347	2,525	1,327	1,069	2	163
		R	15,472 15	13,938	87,077	62,494	108,786	92,734	161 41	33
Himachal Pradesh†		U	44	33	12,740		2,937	2,338		
		R			1,772	1,282	1,755	1,407		
L., M. & A. Islands		Ü			11,684	12,105	**			3 - 1
		R	171	191	24,233	23,703	54	25	6,125	48,583
Manipur	•	Ū	244	172	392	260	236	208	1,032	1,088
m:		R	29	21	112,889	108,410	20	11	1	1
Tripura	•	U	88	57	4,589	4,114	10	8	1	3
Dadra & Nagar Have	1:	R	68	52	250	193			18	5
Dadra & Nagar Have	211	U								• •
Goa, Daman and Div		R	11	9	3,751	3,498			101	66
doa, Daman and Die		U	27	21	3,436	3,481			254	266
Pondicherry		R			4,831	6,101		100	70	41
		U	42	34	5,727	6,811	12	2	111	103
N.E.F.A		R				Not avail	able.			
		U			The second				00 505	66,277
Nagaland		RU	6	.:	166	125	115	4	69,595	764
		R	161	96	481	119	84	52	748	727,665
All-India .		U	471,602			16,795,098	3,440,102	2,963,698	711,310	83,929
THE RESERVE THE STATE OF THE ST	J. E.E.	U	581,949	511,753	6,914,962	5,882,434	801,776	639,594	84,060	00,020

Note:—R: Rural. U: Urban. † Before reorganisation in Nov. 1966. \* Composite State.

The percentage of religionwise population to the total population in the country and the percentage increase during 1951-61 in brackets are:

Jains 0·46 (27·17); Muslims 19·69 (25·61); Sikhs 1·79 (25·13); Others 0·37 (—13·07).

EDUCATION

1961 Census—(Contd. from p. 136)
Speakers of Languages specified in Schedule VIII of the Constitution of India:

India/States	Malayalam	Marathi	Oriya	Punjabi	Sanskrit	Tamil	Telugu	Urdu
Tripura	34	20	11,583	111		49	1,713	21
Dadra & Nagar Haveli	1	34,118					136,140	9,521
Goa, Daman & Diu	121	11.883		14	POLICE IN NO.	286	209	2,594
Pondicherry	20,692	203	9	53	18	325.862	16,243	209
N.E.F.A	737	242	236	1,157	UN ROLLEGI	587	243	56
Nagaland	928	51	145	628	No. of Concession, Name of Street, or other party of the last of t	86	89	119
Sikkim	108	61	11	166	A STATE OF THE PARTY OF THE PAR	35	26	

All Languages in the Constitution.

	I	ndia/St	ates				Persons	Males	Females
ndia						402	382,333,847	197,559,915	184,773,932
Andhra Pradesl	1				1		35,072,272	17,693,776	17,378,496
Assam							9,599,321	5,154,138	4,445,183
Bihar			of the same		1	2	26,413,161	13,374,804	13,038,357
dujarat			3				19,723,685	10,174,918	9,548,767
ammu & Kash	mir					349-	2,952,586	1,577,063	1,375,523
Cerala	1000		11.00	1000			16,744,445	8,282,044	8,462,401
I.P				16-36		100	28,068,464	14,397,467	13,670,997
Iaharashtra					2	The state of	37,006,443	19,116,495	17,889,948
Aysore		-	y Oak				21,811,264	11,166,500	10,644,764
Drissa	20.00	1. 18		-	0.30		15,426,862	7,719,850	7,707,012
Punjab*		7	VI DAY	3 90.05	The William	100	19,935,476	10,704,042	9,231,434
Rajasthan		D Horse		6			7,697,363	4,114,738	3,582,625
'amil Nadu							33,619,392	16,874,856	16,744,536
Ittar Pradesh				O Delicano		1	71,447,704	37,507,823	33,939,881
Vest Bengal			(lesson)		Samulion :		32,608,350	17,398,240	15,210,110
nion Territorie					23 11 18	Matter	4,207,059	2,303,161	1,903,898
andaman & Nic	obar I	slands			W. ( 100 m)	1000	36,265	22,760	13,505
Delhi				31.50%			2,613,907	1,465,349	1,148,558
Iimachal Prade			3	-		1	239,240	131,001	108,239
accadive, Mini	ov &						20,093	10,255	9,838
Ianipur					-	700	13,536	7,543	5,993
ripura			7-10 7	F 11 17 11	Calledon	4	777,112	404,330	372,782
adra & Nagar		0.1729		Uncl.	2000	WE W	46,081	23,503	22,578
oa, Daman &	Din						59,573	29,796	29,777
ondicherry		•					367,548	182,733	184,815
E.F.A.					A Committee		16,486	13,177	3,309
agaland							13,869	10,275	3,594
ikkim		••	1000	ec lecz	The state of		3,349	2,439	910

<sup>\*</sup> Composite State.

Source: Census of India, 1961, Vol. I, Part II-C (ii), Table C-V-A.

# EDUCATION

UNDER the Constitution of India, Education is mostly managed by the State Governments. The Union Government is responsible for the maintenance of the Central Universities and institutions of national importance, for promotion of research and coordination and determination of standards in higher education and research. Cultural activities in relation to foreign countries also fall within its purview.

Under Article 351° of the Constitution the Union Government is responsible for developing and promoting Hindi language along with Sanskrit and other Indian languages.

The Government of India is also responsible for education in Union Territories. In the case of Territories, which have their own legislatures, some of the powers are enjoyed by the respective Governments. The obligations of the Union Government are discharged by the Ministry of Education, through its various programmes, activities, pilot projects and research conducted on the one hand by the Ministry of Education and on the other hand through the agency of different bodies like the University Grants Commission, the Council of Scientific and Industrial Research, National Council of Educational Research and Training, Central Hindi Directorate, Indian

<sup>†</sup> Before reorganisation in Nov. 1966.

Council of Cultural Relations and other similar organisations financed and administered by the Union Government. There are also a number of advisory bodies like the Central Advisory Board of Education, All-India Council for Technical Education, National Council for Women's Education which assist the Ministry of Education in working out its programmes and policies.

Though Education is a state subject, the Central Government and the State Governments work together in the formulation, implementation and evaluation of the various programmes. Social and economic planning, which includes educational planning, is a concurrent responsibility.

The authority of the Government in controlling the system of public instruction is in part shared with, and in part delegated to Universities and State Boards of Secondary and Intermediate Education as regards secondary education and to local bodies as regards elementary education in some States. The control over higher education is exercised through the University Grants Commission, a statutory body, originally set up in 1953 by the Union Government following the recommendation of the Radhakrishnan Commission on University Education.

## **EDUCATION COMMISSION**

The Education Commission, appointed by the Government of India in 1964 to survey the entire field of educational development and to make a comprehensive review of the country's educational system submitted, its report in June, 1966. The report provided the basis for widespread discussions at all levels regarding the reconstruction of the educational structure in the country. On a detailed examination of the recommendations of the Education Commission, a Government resolution on the national policy on education was formulated and placed on the table of both Houses of Parliament on 24th July 1968.

# FOURTH FIVE-YEAR PLAN\*

The approach to Education during the Fourth Five-Year Plan is three-fold: (i) to remove the present deficiencies in the system and link it more effectively with the increasing demands of social and economic development; (ii) to remove internal stresses and strains in the educational system which have developed in consequence of rapid expansion in the first three Plans and (iii) to extend the system in response to social urges and economic needs. A sum of Rs. 809 crores (Rs. 259 crores in the Central Sector and Rs. 550 crores in the State Sector) has been allocated for educational development in the Fourth Plan.

Statewise allocation in Rs. lakhs for Education in the Fourth Plan as mentioned in the Draft Fourth Plan: (The figures within brackets indicate allocation for general, technical and cultural education respectively); Andhra Pradesh (3,300; 300; 20); Assam (2,263; 301; 23); Bihar (3,061; 310; 1); Gujarat (2,550; 300; 50); Haryana (1,300; 155; 3); Jammu & Kashmir (769; 60; 20); Kerala (1,700; 225; 1); Madhya Pradesh (3,200; 400; 25); Maharashtra (5,500; 950; 22); Mysore (1,000; 200; 1); Nagaland (401; 45; 10); Orissa (1,425; 150; 25); Punjab (2,100; 85; 2); Rajasthan (1,400; 30; 15); Tamil Nadu (5,000; 503; 40); Uttar Pradesh (5,295; 1,048; 1); West Bengal (3,260; 370; 15); Union Territories: A. and N. Islands (100; —; 5); Chandigarh (50; 20; 1); Dadra and Nagar Haveli (23; ...; ...); Delhi (2,300; 251; 9); Goa, Daman and Diu (300; 84; 10); Himachal Pradesh (609; 50; 2); L. M. and A. Islands (36; ...; 1); Manipur (303; 20; 1); N.E.F.A. (200; ...; 1); Pondicherry (210; 20; 2); Tripura (332; 95; 1); Total (47,987; 5,972; 298); Grand total 54,257.

The following table shows the enrolment at different stages of education during 1968-69 and target at the end of the Fourth Plan (1973-74) (Enrolment in lakks):

Stage and age g	roups			1968–69	Fourth Plan (Target)
Primary (6-11)	18900		PI Y	# 100	
Classes I-V					
Enrolment				559.3	683-4
% of age group				77.9	85.0
Middle (11-14)					
Classes VI-VIII					
Enrolment				127.2	184.6
% of age-group		-		33.5	42.1
Secondary (14-17)	No.				
Classes IX-XI					
Enrolment	1.00			65.9	104.0
% of age-group				19.4	26.0
University (17-23)	)				
(Arts, Science and		merce)			
Enrolment				16.9	26.6
% of age-group				2.9	3.8

Illiteracy: As on March 31, 1969 the number of illiterates was 349 millions.

#### PRIMARY EDUCATION

Primary education (Classes I to VII or I to VIII as the case may be) is free in all States except Assam (boys only in Classes VI-VIII), Bihar (boys only in classes V-VIII), Uttar Pradesh (for boys only in Classes VII & VIII) and West Bengal (in some urban areas in Classes I to V and generally in Classes VI to VIII). All education is free in Jammu & Kashmir and Nagaland. The entire school education is free in Tamil Nadu, Andhra Pradesh, Kerala and Mysore.

## STATE INSTITUTES OF EDUCATION

With a view to improving the quality of education at various levels particularly at the primary and middle schools levels, a centrally sponsored scheme known as "Establishment of State Institutes of Education" was started during the year 1963-64. Under this scheme, State institutes have been established in all the States, except Nagaland. These Institutes are intended to give training to school teachers, head-masters, inspecting officers and the staff of training institutions; to conduct research studies and investigations in the field of elementary education and to produce suitable literature for the benefit of teachers.

For 1968-69, hundred per cent Central assistance had been provided to the State Governments for this Centrally spensored scheme. In the Fourth Plan, it has been transferred to the state sector.

#### SECONDARY EDUCATION

In the middle of the Third Plan, the Central Government also initiated certain quality improvement programmes such as establishment of State Bureaux of Educational and Vocational Guidance, State Evaluation Units, State Institutes of Science and improvement of Science Education in secondary schools, etc. as Centrally sponsored schemes. They continue in the Fourth Plan, but in the State sector.

The predominant pattern of education in the country comprises eight years of elementary (Basic) education; three years of secondary education with diversified

EDUCATION 143

courses to give it a vocational bias and make it a terminal point for entry into trade or profession; and three years of university education leading to the first degree. Some of the States have adopted a pattern of seven years of elementary (Basic) education followed by four years of secondary education.

Education Commission 1966, has recommended a pattern of ten years of general education, two years of higher secondary or one to three years of vocational education and a course of three years or more for higher education leading to first degree.

There were 30,039 High and Higher Secondary Schools in 1967-68.

At the end of the Third Plan,  $17\cdot 8$  per cent of the children in the age-group 14-17 were studying in secondary classes. The Fourth Plan (1969-74) target is to raise the total enrolment in this age-group to  $10\cdot 40$  millions and the percentage of enrolment to  $26\cdot 0$ . Estimated enrolment in 1968-69 was  $6\cdot 59$  million ( $4\cdot 97$  million boys and  $1\cdot 62$  million girls).

The study of languages forms an important part of school education. Considering all aspects, the Education Commission (1964-66) has suggested a modified three-language formula, including (a) the mother tongue or the regional language, (b) the official language of the Union or the associate official language of the Union as long as it exists, and (c) a modern Indian or European language not covered under (a) and (b) and other than that used as the medium of education.

## Central Schools

The Central Schools Scheme has been implemented by the Government of India in pursuance of the recommendation of the Second Pay Commission, to provide educational facilities to the children of transferable Central Government employees. Under this scheme, 118 higher secondary schools have been established with a common syllabus, and a common medium of instruction Hindi/English and to prepare students for a common examination, viz., the All-India Higher Secondary Examination of the Central Board of Secondary Education, New Delhi. These schools are being developed as quality schools, at a moderate cost to the parent. The children of the various categories of personnel liable to transfer are eligible for admission in the following order of priority: Central Government employees including Defence personnel; All-India Services employees of autonomous and semi-autonomous bodies fully financed by the Central Government: floating and local population.

On August 1, 1968, about 64,668 children were studying in these schools, registering an increase of 13 per cent over the enrolment in the previous year. The entire expenditure on the running of the schools is borne by the Ministry of Education.

No tuition fee is charged in Classes I to VIII. Tuition fee at the rate of Rs. 6, Rs. 7, and Rs. 8 per month is charged in Classes IX, X and XI respectively. Scheduled Caste/Tribe students are exempted from payment of tuition fees.

# Central Board of Secondary Education

The Central Board of Secondary Education was reconstituted in 1962 to enable it to play a more useful role in the field of secondary education and to meet the educational needs of the students whose parents have to move from one State to another from time to time.

The Board conducts the All-India Higher Secondary, Higher Secondary (Three-year course), Higher Secondary (One-year course), Higher Secondary Technical, Demonstration Multipurpose Higher Secondary Examinations.

Any educational institution situated in or outside India can get itself affiliated to the Board. The total number of higher secondary schools recognised by the Board is about 700. All the Central Schools (120) set up by the Govt. of India prepare their candidates for the All-India Higher Secondary Examination of the Board. Similarly, all the Military Schools and Sainik Schools (20) located in different states are also affiliated to the Board, besides several other well-known public schools in the country. All the higher secondary schools in the union territories of Delhi, Manipur, Goa, Laccadive and Andaman & Nicobar islands, are affiliated to the Board. The Indian Schools in Tehran (Iran), Kuwait and Bahrain (Arabian Gulf) are also affiliated to the Board.

# NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

The National Council of Educational Research and Training was set up by the Government of India in September, 1961 as an autonomous organisation. The objectives of the Council are to assist the Ministry of Education and Youth Services in the formulation and implementation of its policies and major programmes in the field of school education. For the realisation of these objectives, the main functions are: to undertake or organise studies, investigations and surveys relating to school education; preservice and inservice training mainly at an advanced level; organise extension services for such institutions as are engaged in educational research, training of teachers; provision of extension services to schools; disseminate improved educational techniques and practices; act as a clearing house for ideas; advise State Governments and other educational organisations and institutions on matters relating to school education; undertake publication of books, periodicals and other literature.

## Constituents of the NCERT

The Council has set up three academic bodies called the National Institute of Education, the Central Institute of Education and the four Regional Colleges of Education located at Ajmer, Bhopal, Bhubaneswar and Mysore. The National Institute of Education, which was reorganised as per the Resolution of the Government of India of August, 1969, situated in Delhi, functions through the following constituent Departments/Units: Department of Educational Psychology and Foundations of Education; Department of Pre-Primary and Primary Education; Department of Science Education (including Central Science Workshop); Department of Social Sciences and Humanities; Department of Teacher Education; Department of Teaching Aids; Department of Textbooks; Data Processing and Educational Survey Unit; and Library, Documentation and Information Services.

Besides the above Departments, the Council has a Department of Adult Education which is concerned with literacy programmes for neo-literates as also an integrated programme of workers' education.

# Summer Institute in Science

The Council, in collaboration with the W.G.C. and U.S.A.I.D., has been organising summer institutes for science teachers in biology, chemistry, physics and mathematics. In 1968, 64 such institutes were organised.

# Summer Institutes in Humanities and Social Sciences

The National Institute of Education also organises summer institutes. During the summer vacations of 1968,

6

it organised 10 Institutes in the following subjects, viz.: Geography 4; Problems of Indian Education 1; Linguistics and Language Teaching 1; Research Methodology and Experimental Designs 1; Learning Motivation and Group Processes 1; Social Education 1 and Educational Psychology 1. A few more summer institutes for the teachers of Central Schools in Chemistry, Physics, Mathematics, English and Hindi were also organised.

# National Science Talent Search Scheme

Under this scheme, about 350 students are selected every year at the close of the secondary school stage and are assisted financially to pursue courses in basic sciences up to the Ph.D. level. Besides this, the scheme also provides for book grants, re-imbursement of the tuition fees of the beneficiaries.

#### Extension

Under this Programme extension workers have been given special training in developing instructional materials and improving the use of school Libraries. There are 97 secondary extension centres/units in the selected University departments and Secondary Training Colleges and 45 Primary Extension Centres in the Elementary Teachers Training Institutions and State Institutes of Education. Three field Units were established in the States of Andhra Pradesh, Rajasthan and Assam.

#### **Examination Reform**

The Council has been continuing a comprehensive programme of examination reform. Training courses and workshops are held in education evaluation for examiners, paper-setters and others concerned with developing new techniques for setting better papers and better scoring procedures.

# Regional Colleges of Education

The Regional Colleges of Education represent a new experiment in teacher training. The colleges offer a widerange of courses in which subject-matter and pedagogical training are integrated. The NCERT had added the Programme of Summer School-cum-Correspondence course for the B.Ed. degree in all the four regional colleges. The enrolment in the Summer-School-cum-Correspondence courses leading to the award of B.Ed. degree being run by the four regional colleges is 955.

# National Awards for Teachers

(See article "Awards and Prizes".)

# **WOMEN'S EDUCATION**

The Central and State Governments give due weight to the advice of the National Council for Women's Education in framing programmes and policies in the matter of education for women. Similar bodies have been set up by the various State Governments.

With the object of overcoming the lag in the education of girls and women, some of the important measures taken by the Government are:—

- (i) Appointment in several State Directorates of Education, of Deputy Joint Directors of Education specially charged with the formulation and execution of special programmes for girls' education.
- (ii) Appointment of special committees from time to time to study problems of girls' education.
- (iii) In addition to the schemes of general education which benefit boys as well as girls, special programmes including those relating to the construction of staff quarters for women teachers in rural areas, attendance allowance, appointment of school mothers, construction of sanitary

- blocks and hostels for girls, condensed educational courses and the establishment of polytechnics for girls, have been functioning.
- (iv) Assistance to Voluntary Educational Organisations working in the field of Women's Education.
- (v) Holding of seminars in different States to discuss problems and programmes of girls' education.

The enrolment figures at all stages for the year 1968-69 were 26.22 million girls: 20.88 million in classes I to IV, 3.72 million in classes VI to VIII and 1.62 million in classes IX to XI.

It is, however, expected that by the end of the Fourth Five Year Plan 71.5 per cent of girls at the primary stage, 26.3 per cent at the middle stage and 12.8 per cent at the secondary stage in the respective age-groups will be in schools.

# **RURAL HIGHER EDUCATION\***

The National Council for Rural Higher Education, established in 1956, advises Government on all matters relating to the development of rural higher education.

Under the scheme, 14 Rural Institutes are at present functioning in different parts of the country. These are: Gandhigram Rural Institute, Gandhigram, Madura; Sri Ramakrishna Mission Vidyalaya Rural Institute, Coimbatore; Lok Bharati Rural Institute, Sanosara; Rural Institute, Amravati; Karmaveer Higher Rural Institute, Gargoti; Vidya Bhawan Rural Institute, Udaipur; Balwant Vidyapeeth Rural Institute. Bichpuri, Agra; Rural Institute, Jamia Millia, New Delhi; Rural Institute of Higher Studies, Birouli, Bihar; Kasturba Rural Institute, Rajpura; Rural Institute, Wardha; Rural Institute, Hanumanamatti, Mysore State; Kasturbagram Rural Institute, Indore and Rural Institute, Thavanoor (Kerala).

The courses, as approved by the Council and adopted by the Rural Institutes, are:

(i) a three-year Diploma Course in Rural Services; (ii) a three-year Diploma Course in Civil and Rural Engineering; (iii) a two-year Certificate Course in Agricultural Science; (iv) a one-year Sanitary Inspectors' Course; (v) a one-year Advanced Course for Sanitary Inspectors; (vi) a two-year Post-Diploma Course in Rural Sociology and Community Development; (vii) a two-year Post-Diploma Course in Rural Economics and Cooperation (viii) a three-year Diploma Course in Rural Services (Education) and (ix) a one-year Preparatory Course to initiate matriculates into the three-year Diploma Course in Rural Services. The post-graduate Diplomas in (i) Rural Economics and Cooperation, and (ii) Rural Sociology and Community Development have so far been recognised by the Government of India and some State Governments as equivalent to the M.A. degree of an Indian University for purposes of employment under them.

The financial allocations for rural institutes of higher education for 1969–70 were Rs.  $24\cdot50$  lakhs (revised) and in 1970–71 Budget were Rs.  $26\cdot035$  lakhs.

# **BOOK DEVELOPMENT PROGRAMME**

The Ministry is associated with the programmes of collaboration with the Governments of the U.S.A., the U.K. and the U.S.S.R. for the republication of standard education works originating in the respective countries. So far about 600 American books, 200 British books and 84 Russian books have been republished under programmes of the respective countries.

In order to safeguard the interests of Indian authors whose books could be regarded as standard ones, the

<sup>\*</sup> The number of candidates who took the annual examinations conducted by the National Council for Rural Higher Education in 1969 was 1,268 of whom 802 were declared successful.

EDUCATION 145

Ministry is also operating a programme for republication of low-priced editions of selected standard educational works written by Indian authors.

In order to stimulate the production of books of all types, the Government of India has also set up in February 1967, a National Book Development Board which would lay down the guidelines for the promotion of book development in the context of the overall requirements of the country. The Board is constituted with representatives of various sectors of the books industry as also of the various governmental and non-governmental agencies dealing with implementation of books programmes of various kinds.

# SOCIAL EDUCATION

The programme of Social Education is put through literacy classes, community centres, and libraries which are an essential agency of mass education.

Radio listening and discussion groups, demonstrations, and excursions have been effectively used. Besides radio, visual aids and printed literature have served as means of imparting education to the masses.

The Department of Adult Education under NCERT, has been training Social Education personnel of different categories deputed by the State Governments etc.

To encourage production of suitable literature for neoliterates and the new reading public, the Ministry of Education has organised a number of schemes, including the award of prizes to authors, and the bulk purchase of good books.

The Workers' Social Education Institutes at Indore and Nagpur serve as pilot projects of social education for industrial workers.

The Central Government assists voluntary educational organisations for the development of their activities in the field of social education.

Another project of importance undertaken in the field of social education relates to "Farmers' Education and Functional Literacy" conducted jointly by the Ministries of Food and Agriculture, Education, and Information and Broadcasting. It has been initiated in a selected district in each of the ten States of Punjab, Uttar Pradesh, Mysore, Andhra Pradesh, Gujarat, Haryana, Madhya Pradesh, Tamil Nadu, Orissa and West Bengal. With 100 per cent Central assistance, it is estimated that about 23,400 adult farmers are covered by the literacy classes under the scheme.

# HINDI, SANSKRIT AND MODERN INDIAN LANGUAGES

The Hindi Shiksha Samiti advises the Ministry of Education on matters relating to propagation and development of Hindi in the country.

Development Programmes of Hindi: The programme for the propagation of Hindi includes grant of financial assistance to voluntary Hindi Organisations, appointment of Hindi teachers in middle and higher secondary schools in non-Hindi speaking States, establishment of Hindi teacher training colleges in non-Hindi speaking States, free supply of Hindi books to schools and colleges, award of scholarships for post-matric studies in Hindi in non-Hindi speaking States and award of prizes to Hindi writers and poets belonging to non-Hindi speaking areas. The programme of enrichment and development of Hindi includes schemes of preparation, translation and publication of standard books of university level in Hindi through official and voluntary agencies as well as universities and

learned societies, preparation and translation of books in Hindi with the assistance of private publishing concerns and preparation of official literature and evolution of scientific and technical terminology in Hindi.

Thirteen first prizes of the value of Rs. 1,000 each and 13 second prizes of the value of Rs. 500 each are awarded to Hindi writers of non-Hindi speaking States for their literary works in Hindi.

Upto the end of December 1969, 11 volumes of the 12-volume Hindi Encyclopaedia were brought out and the remaining one volume is expected to be published shortly.

# Commission for Scientific and Technical Terminology

In pursuance of the Presidential order of the 27th of April, 1967, the Standing Commission for Scientific and Technical Terminology was set up for evolution of Scientific and Technical Terminology in Hindi and Regional languages. The functions of the Commission were laid down as follows:—

- (a) Review of the work done so far in the field of scientific and technical terminology in the light of principles laid down in paragraph 3 of the Presidential Order.
- (b) Formulation of principles relating to coordination and evolution of scientific and technical terminology in Hindi and other languages.
- (c) Coordination of the work done by different agencies of the States in the field of scientific and technical terminology, with the consent or at the instance of the State Governments concerned, and approval of glossaries for use in Hindi and other Indian languages as may be submitted to it by the concerned agencies.
- (d) The Commission may also take up preparation of standard scientific text-books using the new terminology evolved or approved by it, preparation of scientific and technical dictionaries and translation into Indian languages of scientific books in foreign languages.

#### Sanskrit

The Central Sanskrit Board has played an important role in the formulation and implementation of a number of schemes for promotion of Sanskrit. The most notable recommendation of the Board during 1966-67 related to the setting up of Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha in Delhi and running it on the lines of the Kendriya Sanskrit Vidyapeetha, Tirupati. The Vidyapeetha started functioning from 1-4-1967.

The traditional type of Sanskrit education was encouraged by giving suitable grants to voluntary Sanskrit organisations, Gurukulas. About 100 scholars trained on traditional lines continued their research and were awarded scholarships. About 1,000 merit scholarships were awarded to students studying Sanskrit in higher secondary schools. 386 eminent Sanskrit Pandits enjoyed suitable assistance under the Scheme of Financial Assistance to eminent Sanskrit Pandits in indigent circumstances.

During 1968-69, the Ministry of Education assisted in bringing out 11 Sanskrit publications including two out-of-print books by individuals, organisations and private publishers. With financial assistance from the Ministry, the Deccan College of Postgraduate and Research Institute, Poona, has been engaged on compiling a Sanskrit-English dictionary based on historical principles, which is likely to be ready by 1976.

# Modern Indian Languages

Under the scheme for the development of Modern Indian Languages, grants up to 50 per cent of the expenditure on approved items are sanctioned for bringing out publications like encyclopaedias, bilingual dictionaries, books of knowledge, publications bringing out similarities among different Indian languages, catalogues of manuscripts, books of cultural, literary, indological or linguistic interest, etc. Grants on the same basis are also given for holding literary conferences, seminars and exhibitions and for conducting other important activities considered conducive to the development of Indian languages. Assistance has also been rendered by way of purchasing copies of printed publications.

Under another scheme, assistance is given to State Governments to enable them to take up programmes for the development of the regional languages.

Bharatiya Bhasha Samiti: This advisory body consisting of 51 members advises the Government on all matters relating to the propagation and development of Indian languages.

# **SCHOLARSHIPS**

The Government of India have been operating a number of scholarship schemes for study in India. A brief report on the important schemes is as below:

National Loan Scholarships: Financial assistance is given to the poor but meritorious students to complete their education. The loan is recoverable in monthly instalments commencing one year after the loanee secures employment or three years after the grant of scholarship whichever is earlier.

During 1969-70, 20,000 awards were distributed among all the States and Union Territories. In each year of the Fourth Plan, it is proposed to give 20,000 awards. The estimated expenditure during the first year of the Plan is Rs. 1,48,00,000 (Plan) and Rs. 5,12,83,400.

National Scholarships Scheme: Under this scheme 2,650 awards were made every year during the Third Plan.

In 1968-69, the Merit-cum-Means Scholarships Scheme for technical studies was merged with it and the number of awards under the amalgamated scheme raised to 8,250. The number of scholarships during 1969-70 is 8,500. Scholarships under this scheme are awarded to students with a parental income up to Rs. 500 p.m. The estimated expenditure during the first year of the Fourth Plan is Rs. 2,26,11,000.

Scholarships for study in Residential Schools: Two hundred candidates were selected by the Union Ministry of Education under its scheme of Merit Scholarships for study in Residential Schools for the academic session started in 1970. They included five Scheduled Castes and two Scheduled Tribes candidates.

Scholarship for School Teachers' Children: The number of scholarships awarded every year during the Third Plan was 500. It is proposed to give 500 awards in each year during the Fourth Plan. The estimated expenditure in the first year of the Fourth Plan is Rs. 20,87,200.

Scholarships for Study Abroad: In order to accelerate the pace of development of education, science and technology and to meet the shortage of trained personnel in different fields, the Government of India has also been accepting offers of scholarships and fellowships

for study/research/training of Indian nationals abroad made by foreign governments and organisations. As a measure of reciprocity and to promote cultural relations with other countries, the Government of India has also been offering scholarships and fellowships to the nationals of other countries for study in India.

During the year under report, a number of scholarship schemes were in operation which can be classified into the following sections:

- I. Scholarships for Indian Nationals for Study in India.
- II. Scholarships for Indian Nationals for Study abroad.
- III. Scholarships for students belonging to Scheduled Castes and Tribes etc.
- IV. Programme of Exchange of Scholars.
- V. Scholarships for Foreign Nationals for Study in India.

Students in U.S.A.: There were 9,594 Indian students, trainees, physicians, surgeons, visiting scholars and faculty members in the United States as on January 1, 1969 according to a survey of the Education Department of the Indian Embassy in Washington.

# Foreign Students

As on June 7, 1967, 4,662 foreign students, coming from over 50 countries, were studying in our country.

A large number of these students were receiving scholarships covering tuition fees, cost of books, study tour expenses, maintenance allowance, cost of travel, etc. Some seats were also reserved in the universities for them and as far as possible, accommodation was reserved in university and college hostels.

#### NATIONAL FITNESS CORPS

The National Fitness Corps is a comprehensive youth programme adopted on a national scale combining activities designed to develop the total personality of Indian youth.

The broad aspects of the integrated scheme are:-

- (1) Objects: (a) to make youth physically strong and resilient by developing in them physical efficiency, toughness, endurance, courage, discipline and patriotic fervour; (b) to develop among students a sense of appreciation for the democratic values of life and love for their country, its past history and future destiny.
- (2) Programme consists of: (i) Exercise Tables; (ii) Drill and Marching; (iii) Lezium; (iv) Track and Field Events; (v) Games and Relays; (vi) Gymnastics for boys/ Folk Dances for girls; (vii) Simple Combats, Wrestling, Judo; (viii) Hiking and Cross-country; (ix) Instruction and Practice in Tests; (x) Field Craft (for boys)/Home Nursing (for girls); (xi) Information on Indian Constitution and Democratic set-up, Practical Projects and Community singing; (xii) Civil Defence; (xiii) Swimming etc.

## School Curriculum

The programme of National Fitness Corps is a compulsory subject for all children of the age group 9-16 plus in Middle, High and Higher Secondary Schools. There is a compulsory or core group of activities which every child must do as part of the N.F.C. activities, while there are also a few optional items meant for children having a special flair for them.

# Teacher Training

As a result of the decision of the Central Government to decentralise the whole programme of National Fitness Corps, all the training centres set up by this directorate have since been closed down.

15,893 State PETs/ACCTs and 5,112 Central N.D.S. instructors have been reoriented and 847 persons sponsored by all states have received training in C.P. Ed/D.P. Ed at the erstwhile training centres.

# Foreign Trained Scientific and Technical Personnel

Among the Scientific & Technical Personnel who have been abroad after January 1, 1957 for higher studies, training or employment 15,005 were registered by Jan. 1, 1970, in the Indians Abroad Section of the National Register maintained by the Directorate of Scientific & Technical Personnel.

The position in each field is briefly indicated below.

Registration of Indians Abroad as on Jan. 1, 1970.

Subje	cts		Total Registered
Scientists		 	 4,766
Social Scientists		 	 239
Engineers		 	 6,014
Technologists			 1,055
Medical Personnel		 1	 2,931
Total	4.4	 	15,005

In addition, 594 persons in the field of Business Administration and Accountancy had been registered by Jan. 1, 1970 who had been abroad for studies, training or employment.

The broad distribution of those selected to the Pool for the temporary placement of Scientists, Engineers, Technologists, Medical personnel and Social Scientists, commonly known as the Scientists' Pool is given below.

SELECTIONS TO THE SCIENTISTS' POOL FROM VARIOUS COUNTRIES AS ON 1ST JANUARY 1970

Country	,		Science	Social Science	Engineering	Technology	Medicine	Total
U.S.A	1.0		1,295	41	874	141	347	2,698
Canada			219	7	109	7	64	406
U.K		1000	257	17	633	94	1,509	2,510
W. Germany			114	3	222	35	15	389
Other European			146	11	176	23	16	372
Other Foreign Co			93	3	83	5	8	192
India			116	8	37	5	72	238
Total			2,240	90	2,134	310	2,031	6,805

# MEDIUM OF INSTRUCTION IN UNIVERSITIES

The vice-chancellors' conference at New Delhi in Sept. 1967 accepted in the plenary session a statement agreeing to a change in the medium of education at the undergraduate level to Indian languages within a period of about five to ten years, depending on the degree of preparatory work already done, the nature of the subject and other relevant factors. It was, at the same time stressed that in the programme of change-over, the importance of English should be fully recognised and adequate arrangements made for its study at the under-graduate level.

At the post-graduate and research level the question of medium of education lost its usual meaning as the students would have to depend on books and journals in English and other important world languages in science, medicine and technology.

In the case of All-India institutions, the present arrangements regarding the medium of instruction might continue as recommended by the Education Commission. In the case of large cities with a multi-lingual population, medium of education might continue to be English in addition to the regional languages which the university would provide.

A large number of the universities have already switched over to regional languages either wholly or in conjunction with English. A quick survey of the university scene shows that while the science students particularly at the post-graduate level, prefer English as the medium of instruction and examination, there is an ever-increasing

number who have already changed over to the regional language. In most universities, the number of Englishmedium pupils is sharply falling.

Over 40 universities in the country including Delhi, Calcutta, Madras, Mysore, Lucknow, Gujarat, Banaras, Allahabad, Punjab, Patna, Osmania, Vikram, Sagar and Visva Bharati offer a regional language, as the medium of instruction (in addition to English) at the degree level in the faculties of arts and commerce. In most of these a regional language can be offered as the medium even for the sciences but students generally opt for English. The only exception to this will be Shivaji University which, in the near future, will insist on English as the sole medium for science education.

The picture changes altogether at the post-graduate level. Of the 40 universities only 18 or so have provision for teaching or examining through a regional language. English thus continues to be the only medium at this level in the other universities. The wholly regional universities like the Ravi Shankar, Gujarat Vidyapeeth and Kashi Vidyapeeth teach and examine in Hindi, Gujarati and Marathi only. So far as science subjects are concerned, English would appear to be the only medium at this level.

According to a statement made by the Central Education Minister in the Parliament in August 1969, out of 86 universities in the country 52 had already introduced either Hindi or other Indian languages as the medium of instruction in addition to English.

# Literature in Indian Languages

The Government of India have initiated a scheme with a proposed outlay of Rs. 15 crores in the Fourth

0

Plan for assisting the production of university-level books in regional languages.

The Government has agreed to grant Rs. one crore to each State Government, excluding the administrations of Union Territories and Nagaland, spread over a period of six years from 1968-69 for the production of books in the regional languages to facilitate the switch-over to regional languages.

Fifteen States have already set up book production boards. The Education Ministry has so far released onaccount grants to Rajasthan, Bihar, Madhya Pradesh, Andhra Pradesh, Haryana, Uttar Pradesh, Tamil Nadu, Mysore, Kerala, West Bengal, Assam and Maharashtra.

The States have been advised that they could straight-away incur further expenditure of Rs. 4 lakhs each during 1969-70 and more funds would be given if needed.

In addition, the Ministry has also a plan under which 100 fellowships would be offered each year for the five years of the Fourth Plan to first class post-graduate students, who would take up the translation or writing of original books in regional languages.

Each translator has to have triple competence, competence in the foreign language, in the subject, and in the regional language.

Already more than 800 books in different subjects are available in Hindi at the university level.

# UNIVERSITY GRANTS COMMISSION

(Bahadur Shah Zafar Marg, New Delhi-1)

#### Basic facts and figures (1968-69)

The total number of universities during 1968-69 was 76 (as on 31-3-1969) and the number of institutions deemed to be universities was ten. The total number of colleges was 3,112 as against 2,899 in 1967-68. The total student enrolment in the universities and colleges was 24,73,264 as against 22,18,972 during 1967-68.

The number of teachers in universities and colleges was 1,10,943.

# Grants paid during 1968-69

Grants are provided to universities and institutions deemed to be universities for the implementation of development programmes sanctioned by the Commission. The development needs of agricultural universities are looked after by the Indian Council of Agricultural Research, Ministry of Food and Agriculture. The Commission's grants are meant for additional staff, library and laboratory facilities, accommodation for teaching and research, books, furniture, equipment etc. The development programmes of the universities are examined and discussed by the visiting Committees with the universities/institutions concerned, during each Plan period. Development grants are also provided to the colleges for projects approved by the Commission.

In 1968-69 the Commission released to the universities Rs. 119·71 lakhs and Rs. 260·93 lakhs as development grants for the humanities (including social sciences) and science subjects respectively.

The Commission has been providing grants for the development and expansion of higher education in Engineering and Technology to university departments and institutions maintained by the universities. The grants paid during 1968-69 amounted to Rs. 242-72 lakhs. These grants are intended for the improvement/expansion of existing facilities, five-year integrated courses, courses

in chemical engineering, pharmacy and business administration, specialised post-graduate courses, and research programmes, fellowships etc.

Area Studies: Financial assistance is provided by the Commission to the universities concerned for promoting the programme of area studies relating to the life, institutions, culture and language of countries, with which India has close social, political and economic relations.

Publication Grants: For the publication of the research works and doctoral thesis financial assistance is provided to the universities on a cent per cent basis.

Central Universities: The Commission provided maintenance grants amounting to Rs. 583·84 lakhs to the four central universities during 1968-69. The maintenance grants paid to Constituent/Affiliated colleges of Delhi University amounted to Rs. 193·35 lakhs and the grants paid to these colleges for specific purposes amounted to Rs. 30·23 lakhs.

New Universities: Six universities were established during 1968-69. They are: (1) Gujarat Ayurveda university (Jamnagar), (2) Jawaharlal Nehru university (New-Delhi), (3) Maharashtra Krishi Vidyapeeth (Poona), (4) Calicut University (Kerala), (5) Awadesh Pratap Singh University (Rewa), (6) Assam Agricultural University (Jorhat).

Colleges: The Commission provides assistance to colleges for the requisite facilities for their development programmes. Financial assistance is also given to selected colleges for the postgraduate instruction for providing additional staff, teaching accommodation, library and laboratory facilities etc. on a sharing basis. Apart from the assistance given to colleges for post-graduate studies, grants were also provided to colleges on the prescribed sharing basis for extension of libraries and laboratories and purchase of scientific equipment, books and journals, provision of residential accommodation for teaching staff and students etc.

Centre for Advanced Study: The development of centres of advanced study in the universities is one of the major programmes undertaken by the Commission for raising standards at the postgraduate and research levels and encouraging the pursuit of excellence in specific fields. The U.G.C. has been providing assistance to a number of university departments, carefully selected on the basis of existing facilities and potentialities for further development to function as centres of advanced study in specialised fields. The departments recognised by the Commission as centres of advanced study function on an All-India basis and provide facilities to scholars of outstanding ability for advanced studies and research.

So far 30 university departments have been recognised as centres of advanced study of which three viz. the Department of Sociology, Delhi University, the Department of Bio-chemistry, Indian Institute of Science, Bangalore and the Department of History, Aligarh Muslim University, were recognised as centres during 1968-69.

146 scholarships and fellowships are available in the centres which have helped students and teachers from various parts of the country to come to these centres. Visiting fellowships have also been provided to centres to enable them to invite scientists and scholars from within and outside the country.

#### Programmes for Teachers

Summer Institutes, Seminars and Refresher Courses: During 1968-69, 61 summer institutes were organised in science subjects for the benefit of secondary school EDUCATION 149

teachers. Funds for these institutes were provided by the National Council of Educational Research and Training, Ministry of Education & Youth Services. The United States Agency for International Development provided books and equipment, and also made available the services of American consultants, who worked as members of the academic staff of the institutes. Four of the summer institutes one each in physics, chemistry, biology and mathematics, were organised in collaboration with the British Council. The total number of participants in the institutes for school teachers was 2,302. These summer institutes incidentally helped in establishing links between schools and universities, and revitalising science education in the schools.

Summer Institutes for College Teachers: During 1968-69, 61 summer institutes for college teachers were organised in collaboration with the National Science Foundation and the United States Agency for International Development. The total number of participants in these institutes was 2,109. Upto 1968, 190 summer institutes in physics, chemistry, biology and mathematics were organised in which 6,922 college teachers participated.

Ten summer institutes in English language were organised in 1968-69 in collaboration with the British Council. The Commission sponsored a scheme for research participation in science subjects for college teachers. The Commission provided assistance to the universities for academic conferences, symposia, refresher courses, seminars etc., for the improvement of the standards of teaching and research. The Commission has been providing assistance to the universities for the provision of facilities required for their programmes of teaching and research.

Exchange of Teachers: Under the scheme of 'Exchange of Teachers', financial assistance is provided to the universities on a cent per cent basis, to enable them to invite reputed teachers and experts from other universities or centres of learning in the country for short periods to deliver lectures, conduct seminars or guide research works.

Residential Accommodation for Teachers: For the period upto 1968-69, grants amounting to Rs.  $1\cdot 19$  crores for the construction of teachers' hostels and Rs.  $2\cdot 85$  crores for staff quarters were provided to the universities.

#### Programmes for Students

Welfare and Discipline: The Commission continued to provide assistance to the universities and the colleges, within the available resources, for research scholarships and fellowships, hostels, student homes, non-resident student centres, health centres, student aid fund etc.

Scholarships and Fellowships: Scholarships for undergraduate and postgraduate studies are provided by the Ministry of Education & Youth Services and other agencies. In addition the University Grants Commission has made provision for a specific number of scholarships and fellowships which are awarded every year for promoting research and advanced study in different fields.

Senior fellowships of Rs. 500 per month and junior fellowships of Rs. 300 per month are available for a period of two years and three years respectively.

The Commission has also been providing research fellowships in Engineering and Technology of the value of Rs. 400 per month. Each of these fellowships also carries an amount of Rs. 1,000 per annum for meeting expenditure on contingencies related to the research undertaken, and an additional amount of Rs. 1,000 may be provided for field work and publication of research work completed. Five hundred research scholarships,

each of the value of Rs. 250 p.m. and available for a period of three years, were allocated to 64 universities for promoting research in science subjects and the humanities and social sciences.

### Universities (January 1970)

The names of Universities with their Vice-Chancellors are given below:—

Agra University-Shital Prasad; Aligarh Muslim University-Prof. Abdul Aleem; Allahabad University-Prof. A. B. Lal; Andhra University (Waltair)-L. Bullayya; Andhra Pradesh Agricultural University (Hyderabad) -O. Pulla Reddi; Annamalai University (Annamalainagar) -Dr. S. P. Adinarayan; Assam Agricultural University (Jorhat)—Dr. S. R. Barooah; Awadesh Pratap Singh University (Rewa)— L. O. Joshi; Banaras Hindu Uni-versity (Varanasi)—Dr. K. L. Shrimali; Bangalore University-T. K. Tukol; Berhampur University-R. P. Padhi; Bhagalpur University-Satyendra Narayan Aggarwal; Bihar University (Muzaffarpur)-Dr. P. S. Muhar; Bombay University—Dr. P. B. Gajendragadkar; Burdwan University—Prof. P. N. Bhaduri; Calcutta University—Dr. S. N. Sen; Calicut University (Kerala)—M. Muhammad Ghani; Delhi University—Dr. K. N. Raj; Dibrugarh University—Dr. B. R. Seth; Gauhati University—Dr. M. N. Goswami; Gorakhpur University—P. T. Chandi; Gujarat University (Ahmedabad)—Prof. Umashankar Jethalal Joshi; Gujarat Ayurveda University (Jamnagar) -Mohan Lal P. Vyas; Indira Kala Sangeet Vishwavidyalaya (Khairagarh, M.P.)—Vacant; Indore University— K. L. Joshi; Jabalpur University-Dr. R. B. Pandey; Jadavpur University (Calcutta)-Prof. Hem Chandra Guha\*; Jammu University—Dr. J. N. Bhan; Jawaharlal Nehru University (New Delhi) — G. Parthasarathi; Jawaharlal Nehru Krishi Vishwavidyalaya (Jabalpur) - Dr. L. S. Negi; Jiwaji University (Gwalior) - S. S. Bhandarkar; Jodhpur University-V. V. John; Kanpur University-Radha Krishna; Kalyani University—Dr. S. K. Mukherjee; Kameshwar Singh Darbhanga Sanskrit University (Darbhanga) Vacant; Karnatak University (Dharwar)-Dr. A. S. Adke; Kashmir University (Srinagar)-Kh. Noor-ud-Din (Acting); Kerala University (Trivandrum)-Dr. A. Aiyappan; Kurukshetra University—S. K. Dutta; Lucknow University—Prof. M. B. Lal; Madras University— N. D. Sundaravadivelu; Madurai University-T. P. Meenakshisundaran; Magadh University (Bodh Gaya, Bihar)—B. M. K. Sinha; Maharaja Sayajirao University of Baroda—Dr. C. S. Patel; Maharashtra Krishi Vidyapeeth Agricultural College (Poona)—H. G. Patil, Padma Shri; Marathwada University (Aurangabad)—Dr. N. R. Tawde; Meerut University—Dr. R. K. Singh; Mysore University-Prof. D. Javare Gowda; Nagpur University-Dr. V. B. Kolte; North Bengal University (Darjeeling)—Prof. A. C. Roy; Orissa University of Agriculture and Technology (Bhubaneswar)—Dr. B. Samant Rai; Osmania University (Hyderabad)-Prof. Ravada Satyanarayana; Panjab University (Chandigarh) -Suraj Bhan; Punjab Agricultural University (Ludhiana) —Dr. M. S. Randhawa; Patna University—Dr. K. K. Datta; Poona University—Vacant; Punjabi University (Patiala)—Kirpal Singh Narang; Punjabrao Krishi Vidyapith (Akola)—L. N. Bongirwar; Rabindra Bharati (Calcutta)-Dr. (Shrimati) Roma Chaudhury; Rajasthan University (Jaipur)-Dr. P. L. Bhatnagar; Ranchi University-Dr. George Jacob; Ravi Shankar University (Raipur)—B. L. Pandey; Roorkee University—M. R. Chopra; Sambalpur University—K. C. Patnaik; Sardar Patel University (Vallabh Vidyanagar)—I. J. Patel; Saugar University—Prof. M. P. Sharma; Saurashtra University (Rajkot)-Dr. R. Mankad; Shivaji University (Kolhapur)

<sup>\*</sup> It is reported that he has resigned.

—A. G. Pawar; Shrimati Nathibai Damodar Thakersey Women's University (Bombay)—Smt. Sharda Divan; South Gujarat University (Surat) —Prof. C. N. Vakil; Sri Venkateswara University (Tirupati)—Dr. D. Jaganatha Reddy; Udaipur University—Dr. G. S. Mahajani; University of Agricultural Sciences (Bangalore)—Dr. K. C. Naik; Utkal University (Bhubaneswar)—Dr. Sadasiva Misra; U.P. Agriculture University (Nainital)—D. P. Singh; Varanaseya Sanskrit Vishwavidyalaya (Varanasi)—Dr. Gauri Nath Shastri; Vikram University (Ujjain)—Dr. Shiv Mangal Singh 'Suman'; Visva-Bharati (Santinikotan)—Vacant; Guru Nanak University (Amritsar)—S. Bishan Singh Samundri.

### Names of Institutions Deemed to be Universities

Birla Institute of Technology & Science (Pilani)—Dr. C. R. Mitra (Director); Gujarat Vidyapith (Ahmedabad)—Thakorebhai Desai (Vice-Chancellor); Gurukul Kangri Vishvavidyalaya (Hardwar)—Acharya Priya Vrata (Vice-Chancellor); Indian Agricultural Research Institute (Pusa Institute, New Delhi)—Dr. M. S. Swaminathan (Director); Indian Institute of Science (Bangalore)—Dr. S. Dhawan (Director); Indian School of Mines (Dhanbad)—Prof. D. N. Prasad (Director); Jamia Millia Islamia (New Delhi)—Dr. M. Mujeeb (Vice-Chancellor); Kashi Vidyapeeth (Varanasi)—Raja Ram Shastri (Vice-Chancellor); Tata Institute of Social Sciences (Bombay)—Dr. M. S. Gore (Director).

#### TECHNICAL EDUCATION

The All-India Council for Technical Education advises the Government on all matters relating to the co-ordination and development of technical education in the country.

Five Higher Technological Institutions of national importance at Kharagpur, Bombay, Madras, New Delhi and Kanpur have been set up. The admission to these institutes at the under-graduate level are made on the basis of a common entrance examination conducted at several centres in the country and one centre at London. Besides these, fourteen large-sized regional engineering colleges, a number of other engineering colleges, technological institutions and polytechnics have been set up. For specialised courses such as Mining, Engineering and Metallurgy, a number of centres have been established both for degree and diploma courses. For Printing Technology, four regional schools one each at Madras, Calcutta, Allahabad and Bombay have been established. Telecommunication Engineering, Chemical Engineering, Architecture, Textile Technology, Petroleum Technology, Production Technology, Geophysics are some of the subjects in which institutions are today offering courses. Besides the establishment of new institutions and new courses, the old institutions have also been expanded and developed. By 1968-69 the number of institutions for degree and diploma courses has risen to 138 and 284 with an admission capacity of 25,000 and 48,048 respectively. Today about 2,200 places have been made available in 45 institutions for advanced training for post-graduate courses and research. 114 Junior Technical Schools had been established by the academic year 1968-69, designed especially for those who wish to enter industry and other technical occupations. There are also 21 women's polytechnics in different parts of the country offering vocational technical courses which are of special interest to women.

#### All India Council

The Council represents all the interests which are concerned with the technical education. It consists of representatives of all State Governments, Ministries of the Central Government, Parliament, Industry, Commerce,

Labour, professional and learned societies, Universities. Technical Institutions and various other concerned interests. Its functioning, inter alia, includes the preparation of plans for the development of technical manpower of different types and suggesting measures to meet them, suggesting improvement in the pattern of technical education from time to time to suit changing conditions, establishing liaison between industry, Government departments and other organisations on the one hand and tech. nical institutions on the other, coordinating the activities of States, recommending grants and other forms of assistance that might be given by the Centre to the State Government institutions, University institutions and other organisations for development of technical education. For the proper discharge of its functions, the Council has set up a Coordinating Committee, four Regional Committees and seven Boards of Technical Studies.

#### Courses

Technical Education in India is a four-tiered structure comprising post-graduate courses and research; first degree courses; diploma courses; and Vocational or Industrial training.

A scheme has also been formulated for a two-year diploma course for training technicians, with higher secondary as the admission qualification. The scheme aims at giving specialised training in particular fields of engineering directly related to the functions of a diploma holder in Industry.

A scheme for part-time diploma courses in engineering for persons working in the Industry has also been introduced.

Indian Institute of Science, Bangalore: (See under Mysore State Associations for details).

School of Planning and Architecture, Delhi: The School offers graduate courses in Architecture for the Bachelor's degree course of the university of Delhi and the National Diploma course of the All India Council for Technical Education. Besides, post-graduate courses in Town and Country Planning — both part-time and full-time and in Housing (full-time) are run by the School.

All India Institute of Management, Calcutta and Ahmedabad: The institutes were established by the Central Government in 1962-63 in collaboration with the State Governments, local industrialists and Ford Foundation. They conduct post-graduate courses and research in management and related fields. The institutes also do consultancy work in response to requests from Government departments and private enterprises.

Administrative Staff College, Hyderabad: This institute offers a 12-week course to young administrators from all walks of national life in the principles and techniques of organisation, administration and leadership in civil life.

National Institute for Training in Industrial Engineering, Bombay: Established in 1964 with the U.N. Special Fund Assistance, the institute is intended to train suitably qualified persons in industrial engineering methods and techniques.

National Institute of Foundry & Forge Technology, Ranchi: With a view to providing training facilities in foundry engineering and forging, the Central Government had established the institute in 1966-67. It will also conduct short-term refresher courses in the latest methods and techniques of production, design and development for persons working in the industry.

Scheme-wise financial allocations for technical education\* during 1968-69 (Revised) and 1969-70 (Estimates) respectively: (Rupees lakhs): Post-graduate courses and Research 43·43; 50·00; Post-graduate Courses and Research at

<sup>\*</sup> Major financial allocations during 1969-70 (revised) and 1970-71 (estimates) respectively (Rs. lakh): Indian Institutes of Technology 875·84; 877·46; National Institute of Foundry & Forge Technology, Ranchi 19·17; 45·00; NITIE, Bombay 10·51; 16·05; Indian Institutes of Management 53·57; 38·00; School of Planning & Architecture, New Delhi 16·84; 17·55; Indian School of Mines, Dhanbad 28·79; 27·21; (See page 151)

Regional Engineering Colleges 25.00; 30.00; Parttime Courses 17.73; 8.50; Fellowships for Training of Teachers and Technical Institutions 17.74; 14.19; Practical Training Stipends scheme (Plan) 109.00; 110.00; (Non-plan) 22.00; 40.00; Research Training scholarships/ Research Fellowships Scheme (Non-plan) 5.00; 5.20; Summer Institutes 18.00; 23.00; Recurring Grants-in-Aid to others for Specialised Courses (Non-plan) 4.58; 4.58; Revision of Salary Scales of Teachers (Plan) 26.00; 15.00; Establishment of Four Regional Institutes for Training of Teachers of Polytechnics 58.70; 49.90; Regional Engineering Colleges 300.00; 313.00; Indian Institute of Technology (Plan) 521.92; 347.00; (Non-Plan) 355.29; 527.24; School of Planning & Architecture, New Delhi (Plan) 5.04; 2.64; (Non-Plan) 10.96; 14.20; National Institute of Foundry and Forge, Ranchi 7.78; 20.00; Management Institutions (Plan) 38.77; 27.19; (Non-Plan) 23-29; 28-11; Indian School of Mines, Dhanbad (Plan) 5·13; 8·46; (Non-Plan) 21·18; 21·10; Indian Institute of Science, Bangalore (Non-Plan) 112.00; 112.00; Directorate of Practical Training in Mines, Dhanbad (Non-Plan) 1.83; 1.93; National Institute for Training in Industrial Engineering, Bombay -; 5.51; Central Grants to Private Institutions 11.00; 102.50; Grants to other Parties under Old AICTE Scheme 16.10; 16.10.

Fourth Plan Programme

Technical institutions have been planned for an annual admission capacity of 25,000 students at the degree level

and 48,600 students at the diploma level. The actual admissions in 1968-69 were about 17,890 in degree and 31,500 in diploma courses. The main emphasis in technical education, during the Fourth Plan, will be on improving quality and standards. The improvement programmes would relate to pre-service and in-service training of teachers, re-organisation of diploma courses in order to diversify and recrient them functionally to the needs of the industry, expansion and improvement of post-graduate engineering studies and research, curriculum development and preparation of instructional materials including laboratory equipment. The number of places for practical training in industry, which was increased from 2,000 in 1967-68 to 11,000 places in 1968-69, will be maintained at about the same level during the Fourth Plan. Centres of advanced study will be developed in aeronautics, material sciences and electronics and automation. Facilities for part-time degree and diploma courses will be increased. Management studies at the Institutes of Management at. Calcutta and Ahmedabad and in the universities will be further developed. Support will be given for further development to the Indian Institute of Science, Bangalore, the National Institute of Training for Industrial Engineering, the National Institute of Forge and Foundry and other institutions.

Allocation for technical education during the Fourth Plan: Rs. 54·32 crores for the States, Rs. 5·40 crores for the Union Territories and Rs. 60·00 crores for the Centre.

### FAMILY PLANNING

THE estimated population of India was about 540 million in 1969-70. The population in the country is increasing annually at 25 per thousand with the net addition of 13 million people in the country every year. India has taken up family planning on Governmental level.

The Fourth Five-Year Plan has provided a sum of Rs. 315 crores for the programme and the aim is to reduce the birth rate of 41 per thousand to 23 per thousand in about 10 years time by voluntary adoption of any of the available family planning methods by the 97 million couples (1969 Oct. estimate) in the reproductive age group 15-44 years. This is sought to be achieved by a four point programme consisting of effective (1) Mass education and motivation; (2) Training of medical, paramedical, extension education and other personnel; (3) Supplies and services and (4) Research in all fields — communication and motivation, demography, medical and biological.

#### ORGANIZATIONAL SET-UP

Family Planning has been a state subject. A separate department of Family Planning has been created in the Ministry of Health, F.P. & Urban Development with the Commissioner for Family Planning as the technical head. To establish liaison with the State, six Regional Directors have been appointed. The states have established State Family Planning and District Family Planning Bureaus and the Primary Health Centres for family planning work. In the urban areas one clinic against almost every population of 50,000 has been established. In the rural areas 5,080 Family Planning Centres have been in position by the end of December 1968.

Expert advice and consultation on technical matters are provided to the Department of Family Planning by various committees.

#### TRAINING

A Central corps of Family Planning doctors has been created to offer the services of doctors to needy states. Five Central Training Institutes namely:—

- 1. Central Family Planning Institute, New Delhi;
- 2. Central Health Education Bureau, New Delhi;
- 3. All India Institute of Hygiene & Public Health, Calcutta;
- 4. Family Planning Training & Research Centre, Bombay;
- 5. Institute of Rural Health & F.P., Gandhigram, have been established to train the key personnel. Besides, 44 Regional Training Centres have been set up to train mainly the paramedical and non-medical staff. Training efforts are also being supplemented by the sixteen Central Family Planning Field Units established against one in each State. In the long-term course 4,436 doctors and 18,145 others have been trained so far and in the short-term course 11,268 doctors and 1,39,054 others have been trained.

RESEARCH

At present there are eight demographic Research Centres one each at Dharwar, Delhi, Lucknow, Calcutta, Patna, Poona, Baroda and Bombay. Similarly 8 Family Planning Communication Action Research Projects have been functioning at: (1) Planning Research & Action Institute, Lucknow; (2) University of Kerala, Trivandrum; (3) Indian Statistical Institute, Calcutta; (4) Central Family Planning Institute, New Delhi; (5) Institute of Rural Health & Family Planning, Gandhigram; (6) Utkal University, Bhubaneswar; (7) India International Centre, New Delhi; (8) Shri V. T. K. Institute of Rural Development, Baroda.

Technical Teacher Training Institutes for Polytechnic Teachers 37·20; 61·07; Practical Training Stipends Scheme 177·00; 175·00; Postgraduate courses & Research 45·00; 80·00; Regional Engineering Colleges 290·64; 299·00; Quality Improvement Programmes 32·30; 73·00; Central Grants to Private Institutes 79·20; 80·00; Loan for Construction of Hostels 120·50; 152·29; Indian Institute of Science, Bangalore 119·54; 113·00.

Medical and Bio-medical studies on various aspects of Family Planning are being carried out at the various institutions and universities in New Delhi, Calcutta, Lucknow, Ahmedabad, Bombay and Chandigarh under the overall control of Indian Council of Medical Research. The main aim of bio-medical research is to bring out new contraceptives like the injectible contraceptives, etc. and study the effects of contraceptives currently in use.

#### **EDUCATIONAL AND MOTIVATION**

At 22 Radio Stations special Family Planning Cells have been established to relay Family Planning Programme, Special Family Planning Publicity Units have been established under the Ministry of Information and Broadcasting. Exhibition Units by the Central and State Governments have also been set up. Various feature films, documentaries and slides have been prepared for use in cinema houses all over the country.

Some States have provided schemes for the appointment of Family Planning Sahayakas with suitable honorarium.

#### SUPPLIES AND SERVICES

With the target of approaching 97 million couples in the reproductive age group for adopting one or the other contraceptive methods a net work of mobile and static services is being provided through 7,057 static and 754 mobile units, 1,806 urban centres and 5,130 rural centres with over 24,762 sub-centres and 9,000 other medical insitutions where family planning advice and supplies are available.

By the end of Dec. 1969 about 6.9 million sterilization operations were performed and 3.1 million loops inserted. It is estimated that in a single year (1968-69) only, about 1.4 million births were prevented.

#### **ACHIEVEMENTS**

Sterilizations and introduction of loops respectively in the States up to Dec. 31, 1969; Andhra Pradesh 6,29,199; 1,41,130; Assam 51,363; 1,17,072; Bihar 3,64,296; 1,28,650; Gujarat 4,01,068; 1,64,151; Haryana 84,672; 2,01,607; Jammu & Kashmir 34,373; 35,093; Kerala 3,44,011; 1,80,815; Madhya Pradesh 5,77,519; 1,55,399; Maharashtra 10,84,162; 3,17,729; Mysore 3,60,770; 2,34,630; Orissa 3,85,900; 1,18,753; Punjab 1,69,620; 3,66,587; Rajasthan 1,54,305; 87,938; Tamil Nadu 8,80,589; 67,969, Uttar Pradesh 5,98,904; 4,01,067; West Bengal 5,39,811; 2,88,099; Nagaland, Union territories and Central Government institutions 2,40,385; 1,71,221; Total 69,00,897; 31,77,910.

### ELECTRIC POWER DEVELOPMENT

(By courtesy of the Central Water and Power Commission, Power Wing.)

THE revised figures in respect of the aggregate generating capacity\* in kW for 1965-66 & the provisional figures for 1966-67 & 1967-68 are given below: 1965-66 90,27,019; 1966-67: 10,189,114 and 1967-68: 11,883,163.

The total installed plant capacity at the end of March 1968 was 11,883·163 MW, including 136·00 MW of plant in the Chola Power Station of the Central Railway, 306·00 MW of plant in the Neyveli Power Station and 62·50 MW in the Renukot Power Station (U.P.). The net addition to generating capacity of utilities was 1,790·996 MW, which represents an increase of 17·7 per cent of the installed plant capacity in the previous year. The total power generated by all the utility undertakings was approximately 41·95 million kWh and the quantum of power purchased by them from non-utilities was 104·74 million kWh. The increase in the sales during the year was approximately 3,609 million kWh equivalent to an increase of 12·4 per cent over the sales in the previous year.

The production and sale of electric power for the years 1966-67 and 1967-68 were as follows (in million kWh):

		TV.V	Generated	Sold
1966-67	(Provisional)		36,375 • 587	29,127 - 636
1967-68			41,194.637	32,736 - 872

An analysis of electric power consumption in million kWh is given below. The figures in brackets show the percentage of total energy consumption.

	1966-67	1967-68
Domestic or Residential	NO VISIONS	
light and small power	2,626 - 727	2,927-966
	(9.0)	(8.9)
Commercial light and		
small power	1,819.649	1,750 - 176
	$(6 \cdot 2)$	(5.3)

400	1966-67	1967-68
	20,390 - 802	22,852 · 237
	(70.0)	(69.8)
	1,180 - 213	1,301.656
	(4.1)	$(4 \cdot 0)$
	308.030	349.936
	(1.1)	$(1\cdot 1)$
	2.106 · 483	2,585 · 256
	(7.2)	$(7 \cdot 9)$
age		
CO.	695 - 732	709 • 499
	(2.4)	$(2 \cdot 2)$
	29,127-636	32,736 · 872
	(100.0)	(100.0)
	20 m	$\begin{array}{c} \dots & 20,390 \cdot 802 \\ (70 \cdot 0) \\ \dots & 1,180 \cdot 213 \\ (4 \cdot 1) \\ \dots & 308 \cdot 030 \\ (1 \cdot 1) \\ \dots & 2,106 \cdot 483 \\ (7 \cdot 2) \\ \text{age} \\ \dots & 695 \cdot 732 \\ (2 \cdot 4) \\ \dots & 29,127 \cdot 636 \\ \end{array}$

The following statements show the number of towns and villages electrified as on 31-3-1968.

D. L.	Too to		Towns electrified			
Populatio	on		States Union Terr			
Over 100,000	1800		105	2		
50,000-100,000			136	3		
10,000-50,000		The same	1,321	13		
Below 10,000			1,039	41		
TOTAL	100 a	a sulfa	2,601	59		

D 1			Villages electrified†			
Populat	Population			Union Territory		
Over 10,000	i shirt		682	1		
5,000-10,000			2,309	9		
1,000-5,000			26,957	542		
Below 1,000			27,424	2,616		
TOTAL			57,372	3,168		

<sup>\*</sup> During 1968-69 the generating capacity was 14·28 million kW and at the end of Dec. 1969 it was 15·1 million kW. By March 1970 it is expected to be 15·6 million kW. 9 † The no. of villages electrified as on 30·9·1969 was 73,554 benefiting 110 million people.

Some individual industries have power stations of their own. The number of installations and the installed capacity in respect of the following industries in kW respectively are as follows (as on 31st March, 1968):

Aluminium (P) 6; 22,600; Aluminium (S) 10; 630; Cement (P) 27; 109,514; Cement (S) 27; 630; Chemicals 37; 30,647; Collieris 145; 47,998; Copper (P) 1; 8,975; Copper (S) 1,; —; Cotton Textiles 319; 116,330; Engineering 28; 7,228; Ferro-Manganese 5; 32; Fertilizers 5; 82,405; Gold 1; 6,700; Iron & Steel (P) 7; 366,544; Iron & Steel (S) 18; 600; Jute 72; 32,220; Mines 7; 4,877; Oil and Petroleum 7; 57,809; Paper 26; 83,292; Silk 20; 44,992; Soap 9; 488; Sugar 134; 172,145;

Tanneries 7; 757; Wool 11; 3,398; Miscellaneous 11; 6,825.

The number of undertakings reckoned on ownership basis at the end of 1966-67 and 1967-68 was distributed as follows: State Government/State Electricity Board: 25; 38; Power Corporation: 1; 1; Municipality: 44; 44; Companies: 160; 158; Total 230; 241.

The total number of consumers at the end of 1967-68 was 10,631,914 in all (Domestic 7,625,274; Commercial 1,712,237 Industrial (including railways, tramways and public water works and sewage pumping) 424,402; Public lighting 49,102; Irrigation 833,438).

The State-wise analysis of plant, generation and sales for 1967-68 is as follows:—

States	Installed capacity (kW)	Energy generated (mln. kWh)	Energy sold to Consumers (mln, kWh)	Capacity in Industrial Establishments (kW)	Annual per capita consumption (excluding self-gen- eration of non-utilities (kWh)	Annual per capita consumption (including self-gen- eration of non-utilities (kWh)
Andhra Pradesh	640,835	1,949 · 563	1,334 · 300	62,390	32.60	36.50
Assam	156,675	170.311	119.917	10,439	8.33	11.00
Bihar	189,487	779.302	1,424 · 477	310,492	40.58	58.80
Gujarat	664,842	2,888-699	2,328 · 907	85,052	94.40	104.80
Haryana	456,212	1,402.527	531 · 549	20,183	56.61	64.20
Jammu and Kashmir	32,578	118.130	131.830		33.80	33.80
Kerala	528,600	1,406 · 556	1,188 · 257	18,034	59.66	62.60
Madhya Pradesh	491,923	1,753.001	1,418.788	91,606	36.34	44.70
Maharashtra	1,580,349	6,824 · 761	5,764.519	71,972	123 - 22	126-20
Mysore	621,775	2,293.970	1,677 · 161	40,410	61.01	63 · 10
Nagaland	1,570	1.600	2.100		5.13	5.10
Orissa	438,955	1.030 · 941	1,021.063	144,754	50.29	79.60
Punjab	620,736	2,227.058	2,134 · 281	2,095	161.33	161.50
Rajasthan	387,074	890-880	407.611	48,534	18.16	25.60
Tamil Nadu	1,470,500	5,175 · 281	4,045 · 409	35,447	107.34	108.80
Uttar Pradesh	1,197,096	3,717 - 671	3,146.084	79,448	36.83	38.20
West Bengal	1,208,880	3,859 · 825	3,850 · 616	158,067	102.73	113.50
Union Territories—						
Delhi	251,820	482.670	763 · 747	22,791	206.98	233 · 20
A. & N. Islandsa	1,658	2.684	2.036		25.46	25.50
Chandigarh	2,480	0.941	50.000			
Dadra & Nagar Haveli			48.387		4.78	4.80
Goa, Daman & Diu	4,911	8.069	64 · 156		68.46	73.00
Himachal Pradesh	5,001	13.296	0.335		16.07	16.10
L., M. and A. Islandsb	374	0.148	0.129		4.30	4.30
Manipur	3,142	4.549	3.064		2.97	3.00
N.E.F.A	1,500					
Pondicherry			63.708		151.68	152.00
Tripura	2,680	8,430	7.637	5,922*	5.00	5.50
Damodar Valley Corpn	921,500	4,183.774	1,206.002		-6	
TOTAL	11,883,163	41,194.637	32,736 · 872	1,207,636	63 · 65	71.60

Includes all other Union Territories.
 a Andaman and Nicobar Islands.
 b Laccadive, Minicoy and Amindivi Islands.
 Rural Electrification:
 A sum of Rs. 318 crores has been provided in the IV Plan for rural electrification.

Installed capacity and energy generated by type of plant as on 31st March 1968 :-

	Ste	eam	Gas To		Н	ydro	To	otal
States	Capacity (kW)	Generation (Million kWh)	Capacity (kW)	Generatio (Million kWh)		Generation (Million kWh)	Capacity (kW)	Generation (Million kWh)
Andhra Pradesh	341,750	1,090 · 315	26,160	0.663	321,750	1,093 · 413	689,660	2,184.391
Assam	-		110,765	89.702	45,910	80,609	156,675	170.311
Bihar	172,770	$759 \cdot 925$	16,717	19.377		-	189,487	779 - 302
Gujarat	619,600	2,861 · 593	45,242	27.106	-		664,842	2,888 · 699
Haryana	22,350	24.570	3,586	0.640	roll by		25,936	25.210
Jammu & Kashmir			5,660	5.100	26,918	113.030	32,578	118.130
Kerala	W. 17 -		1,600	0.001	527,000	1,406 - 555	528,600	1,406 · 556
Madhya Pradesh	455,770	1,722 - 826	7,153	4.286	158,000	176.474	620,923	1,903.586
Maharashtra	708,500	2,769 - 671	42,525	42.149	829,324	4,012.941	1,580,349	6,824 • 761
Mysore			11,575	0.579	595,800	2,231.603	607,375	2,232 · 182
Nagaland	-	MESTER AND AND ADDRESS OF THE PARTY OF THE P	1,570	1.600	_		1,570	1.600
Orissa	133,250	55.848	1,280	0.870	270,000	801 · 183	404,530	857.901
Punjab	15,000	1.373	6,073	0.279	1,132,500	4,160.789	1,537,573	4,162.441
Rajasthan	46,150	98.472	46,863	42.285			93,013	140.757
Tamil Nadu	501,500	2,445.590			969,000	2,729 · 691	1,470,500	5,175 · 281
Uttar Pradesh	675,235	2,095.037	44.106	22.314	477,755	1,600 - 320	1,197,096	3,717 - 671
	1,171,435	3,811.355	11,937	15.127	25,508	33.343	1,208,880	3,859 - 825
Delhi	293,500	513.965	20,820	10.177	_		314,320	524 · 142
A. & N. Islands	1,100	1.543	558	1.141	_		1,658	2.684
Chandigarh		4 4000	2,480	0.941	900	NAME OF THE OWNER, OWNE	2,480	0.941
Dadra & Nagar								
Haveli	34 37 744		The same of	-			_	
Goa, Daman & Diu		- Trous service	4.911	8.069		Marie Control	4.911	8.069
Himachal Pradesh	Ordin	- BALLEL	2,150	0.072	2,851	13.224	5,001	13.296
Laccadive, Minicov			2,100	0 012	2,001	10 221		
and Amindivi Is-								
landa			374	0.148		AND THE REAL PROPERTY.	374	0.148
Manimum	TOTAL COLUMN		2,542	2.777	600	1.772	3,142	4.549
NEDA	Service of the last of the las		1,500	2 111	000	1112	1,500	_
D 1.1	THE PARTY NAMED IN		1,000	-			1,000	
Thinne	O AND DESCRIPTION	a succession of	2,690	8.430	DI DAYS		2,690	8.430
Damodar Valley	-		2,000	9.490	A CONTRACTOR	DESCRIPTION OF THE PARTY OF THE	2,000	0.200
Corporation	817,500	3,980.662	-38 -3/6		104,000	203 · 112	921,500	4,183.774
TOTAL	5,975,410	22,232.745	420,837	303 - 833	5,486,916	18,658.059	11,883,163	41,194.637

### ADMINISTRATION OF JUSTICE

THE Indian Union though a dual polity has no dual judiciary at all. The Supreme Court and the High Courts form one single integrated judiciary having jurisdiction and providing remedies in all cases arising under the constitutional law, the civil law or the criminal law. This is done in order to eliminate all diversities in remedial procedure.

The writs are now issued by the Supreme Court of India and the various High Courts in the territory of India. All laws which existed before independence continue to operate in India as before subject to adaptation and modification made therein. Article 372 of the Constitution provides inter alia that, subject to the other provisions of the Constitution all laws in force in the territory of India immediately before the commencement of the Constitution shall continue in force therein until altered, repealed or amended by a competent Legislature or other competent authority.

The indigenous law of India is personal and divisible with reference to the two great classes of the population, Hindu and Muslim.

### SUPREME COURT

Art. 124 of the Constitution provides for the establishment of a Supreme Court of India consisting of a Chief Justice of India and seven other judges. There is provision in law for the appointment in all of 13 other judges. At present there are 11 judges including the Chief Justice (see Act 17 of 1960). Every judge of the Supreme Court shall be appointed by the President and shall hold office until he attains the age of sixty-five years. In the course of appointment of a Judge the Chief Justice shall always be consulted. Only a citizen of India who has been for at least 5 years a judge of a High Court, or for 10 years an advocate of a High Court, or a person, who in the opinion of the President, is a distinguished jurist, is qualified to be appointed judge of the Supreme Court.

A judge of the Supreme Court is not liable to be removed from his office except by an order of the President passed after an address by each House of Parliament, supported by a majority of the total membership of that House, and by a majority of not less than two-thirds of the members of that House present and voting, has been presented to

### ADMINISTRATION OF JUSTICE

the President in the same session for such removal, on the ground of proved misbehaviour or incapacity. Parliament passed a law laying down the procedure to be followed in such cases (see Act No. 51 of 1968). The Act is known as Judges (Inquiry) Act. No person who has held office as a judge of the Supreme Court shall plead or act in any court or before any authority within the territory of India.

The Supreme Court is a court of record with all the powers of such a court including the power to punish for contempt. The seat of the Court is to be in Delhi or such other place as the Chief Justice with the approval of the President may from time to time appoint.

The Supreme Court has exclusive original jurisdiction in any dispute (a) between the Government of India and one or more States; (b) between Government of India and one or more States on the one side and one or more other States, on the other; (c) between two or more States, if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends (Art. 131).

The appellate jurisdiction of the Supreme Court extends over all appeals from any judgment, decree or final order of a High Court, in civil, criminal or other proceedings, if the High Court certifies that the case involves a substantial question of law as to the interpretation of the Constitution. If the High Court refuses such a certificate the Supreme Court may grant special leave to appeal in a proper case (Art. 136). An appeal shall also lie to the Supreme Court from a High Court in civil matters, when the amount or value of the subject matter in dispute is not less than Rs. 20,000 or the High Court certifies the case to be a fit one for appeal to the Supreme Court (Art. 133).

In criminal matters under Art. 134 an appeal lies to the Supreme Court from any judgment, final order or sentence of a High Court, if the High Court has (a) on appeal reversed an order of acquittal of an accused person and sentenced him to death; or (b) has withdrawn for trial before itself any case from a subordinate court and has in such trial convicted the accused person and sentenced him to death; or (c) the High Court has certified that the case is a fit one for appeal.

For purposes of appeals to the Supreme Court, the Judicial Commissioners' Courts are to be considered as High Courts.

Under Art. 136 discretion is given to the Supreme Court to grant special leave to appeal from any judgment, decree, sentence or order, in any matter passed by any Court or Tribunal in the territory of India.

The Supreme Court has also power to review its own judgement (Art. 137).

The jurisdiction and powers of the Federal Court are also exercisable by the Supreme Court (Art. 135) including the advisory power to give its opinion on questions of law or fact referred to it by the President (Art. 143).

The law declared by the Supreme Court shall be binding on all courts in the territory of India excepting the Supreme Court itself.

Parliament has the power to legislate on the constitution, organisation, jurisdiction and powers of the Supreme Court.

Article 32 of the Constitution guarantees the right to move the Supreme Court by appropriate proceedings for the enforcement of Fundamental Rights; and for the enforcement of such rights the Supreme Court has power to issue directions or orders or writs, including writs in the nature of Habeas Corpus, mandamus, prohibition, quo warranto and Certiorari whichever may be appropriate.

Power is given to Parliament to enlarge the jurisdiction of the Supreme Court by appropriate legislation (Act. 138).

HUTE OF EDUGATION

The royal prerogetive to grant pardons, reprieves, respites or remissions of punishments now resides in the President (Art. 72).

Under Art. 348, all proceedings in the Suprete Court and in every High Court in India and the authoritative text of all Bills and Acts of Parliament and the State Legislatures and of all Ordinances promulgated by the President or Governors and of all orders, rules and regulations issued under the Constitution or any law shall be in the English language. If this language is to be replaced by any other language, Parliament must legislate to that effect. Parliament has passed the Official Languages Act (No. 19 of 1963). Though the Act enables the Governor of a State to authorise the use of Hindi or the official language of the State in the High Court, it does not include any provision, with respect to the language in the Supreme Court.

All authorities, civil and criminal in the territory of India, have to act in aid of the Supreme Court (Art. 144). The independence of the judges of the Supreme Court, is secured by charging their salaries on the Consolidated Fund of India, and by prohibiting any discussion in the legislature on the conduct of the judges in their official capacity.

#### HIGH COURTS

Every State has a High Court. However there is only one High Court for Assam and Nagaland States and also only one High Court for Punjab and Haryana. There is a separate High Court for Delhi.

Every High Court is a court of record and has all powers of such court including the power to commit for contempt of itself.

Every judge of a High Court is appointed by the President after consultation with the Chief Justice of India, the Governor of the State and the Chief Justice of the particular High Court; and he holds office until he attains the age of sixty-two years.

A person is not qualified to be appointed a judge of a High Court unless he is a citizen of India and has either held judicial office or practised as an advocate for 10 years in any of the States.

A High Court judge is not liable to be removed from his office except in the manner provided in Art. 124 (4) for the removal of a judge of the Supreme Court of India.

There is provision in the Constitution for the appointment of additional or acting judges.

The High Courts have powers of superintendence over all subordinate Courts and tribunals within their respective jurisdiction.

Legislation affecting constitution and organisation of the High Courts can be passed by Parliament alone.

On an average more than 14,000 cases are filed in the High Courts of India every month.

The Central Government has made separate judicial arrangements in the Union Territories, Goa, Daman and Diu, Himachal Pradesh, Manipur, Tripura, Andaman and Nicobar Islands and Laccadive, Minicoy and Amindivi Islands.

Under Article 241 of the Constitution, Parliament can by law constitute a High Court for a Union Territory or declare any court in any such territory to be a High Court for all or any purposes of the Constitution. Judicial Commissioner's Court in Goa, Daman and Diu is declared a High Court for certain purposes.

### LOWER COURTS

The Code of Criminal Procedure provides for the constitution of inferior criminal courts styled as courts of session and courts of magistrates.

Every State, outside the towns of Madras, Bombay and Calcutta, is divided into sessions divisions consisting of one or more districts, and every sessions division has a court of session and a sessions judge, with assistants if need be. These stationary sessions courts are competent to try all accused persons duly committed, and to inflict any punishment authorised by law, but sentences of death are subject to confirmation by the highest court of criminal appeal in the State.

Magistrates' courts are of three classes with descending powers. Provision is made and largely utilised in the towns, for the appointment of honorary magistrates. In the towns of Madras, Bombay and Calcutta, Presidency Magistrates deal with magisterial cases and benches of Justices of the Peace or Honorary Magistrates dispose of the less important cases.

Next come the Subordinate Judges and Munsiffs, the extent of whose original jurisdiction varies in different parts of the country.

There are in addition a number of Courts of Small Causes, with jurisdiction to try money suits up to Rs. 500. In the towns of Madras, Bombay and Calcutta where the High Courts have original jurisdiction, Small Causes Courts dispose of money suits up to Rs. 3,000.

In Bombay and Madras there are also City Civil Courts. The City Civil Court in Bombay has a pecuniary jurisdiction of upto Rs. 25,000.

As Insolvency Courts the High Courts of Calcutta, Bombay and Madras have jurisdiction in the Presidency towns. In the mofussil similar powers are conferred on the District Courts by the Provincial Insolvency Act of 1920.

There are Coroners only for the Presidency Towns of Calcutta and Bombay. Eleswhere their duties are discharged by the ordinary staff of magistrates and police officers unaided by jurors.

### SPECIAL COURTS

Labour Courts and Industrial Courts now exist in most States.

A Labour Court consists of a single judge.

These Courts decide upon disputes regarding (a) propriety or legality of an order passed by an employer, (b) the application and interpretation of standing orders, (c) they also decide disputes referred to them by Government for arbitration. Legality or otherwise of strikes or lock-outs or closure, etc. is also decided by them.

An appeal against the judgment of the Labour Courts lies to the Industrial Court. This court has also original jurisdiction regarding matters referred to it by the Government or by representative Unions. It decides upon questions of law referred to it by Wage Boards and references regarding interpretation of the Act and the Rules. It has power of superintendence over Labour Courts.

The Industrial Disputes Act was passed by the Central Legislature in 1947 for the investigation and settlement of industrial disputes.

Industrial Tribunals were established under this Act. If the conciliation bodies set up under this Act fail to bring about a settlement, the matter is referred to the Industrial Tribunals.

Neither party to a dispute is entitled to be represented by a legal practitioner except with the consent of the other party and by leave of Tribunal.

Industrial Tribunals are not permanent Courts. Whenever a matter is referred to the Government regarding an industrial dispute the Government appoints one or more persons as Industrial Tribunal to adjudicate upon the dispute.

The Industrial Disputes (Amendment and Miscellaneous Provisions) Act No. 36 of 1956 makes provision for the constitution of the following courts and tribunals:

- 1. Labour Courts to be constituted by the appropriate Government. A court is to consist of one judge only.
- 2. Industrial Tribunals. A Tribunal is to consist of one judge only. A person is not qualified to be a member of a Tribunal unless he has been judge of a High Court. The Tribunals will be constituted by the appropriate Government.
- 3. National Tribunals. These Tribunals will be constituted by the Central Government. Here also a tribunal is to consist of one judge only.

This Act came into force on 1st Sept., 1956.

The Industrial Disputes (Amendment) Act 41 of 1956 and the Dock Workers (Regulation of Employment) Act, 1948, are two other Acts with respect to labour cases.

Administration of labour laws is a divided responsibility. The Central Government has the following organisations for the administration of labour laws. (1) The Office of the Chief Labour Commissioner, New Delhi. (2) The Office of the Coal Mines Welfare Commissioner, Dhanbad. (3) The Office of the Coal Mines Provident Fund Commissioner, Dhanbad. (4) The Office of the Welfare Commissioner, Mica Mines Labour Welfare Fund, Dhanbad and Nellore. (5) The Office of the Chief Inspector of Mines, Dhanbad. (6) The Office of the Chief Adviser of Factories, New Delhi. (7) The Office of the Director-General, Employees' State Insurance Corporation, New Delhi. (8) The Office of the Controller of Emigrant Labour, Shillong. (9) The Office of the Director, Labour Bureau, Simla. (10) The Office of the Central Provident Fund Commissioner, New Delhi.

The State Governments also have their own organisations for the administration and enforcement of labour laws.

Juvenile offenders are tried by the Juvenile Courts.

Panchayat Courts (called Nyaya Panchayat) are in existence in many States. The members of the Panchayat Court are elected by the Village Panchayat. Sections 30-44 of the Act lay down rules about the suits that may be tried and the suits that may not be tried by the Court. A Nyaya Panchayat cannot alter or revise its decision. An appeal against a decision of the Nyaya Panchayat lies to the District Judge.

#### LAW OFFICIALS

The Government of India have their own law colleague in the Law Minister of the Union Cabinet. All Government measures are drafted in his Ministry after their substance is decided upon by the administrative departments concerned.

Outside the Cabinet the principal law officers of the Government of India are the Attorney-General, Solicitor-General appointed by the President. At Bombay and Calcutta the Government of India have their own law officers.

Each of the State Governments has its own Advocate-General.

In addition to the Advocate-General there is also a Government Pleader in many States. He usually belongs to the Appellate Side of the High Court while the Advocate-General belongs to the Original Side where the High Court has both Original and Appellate Sides. The Government Pleader is assisted by an Assistant Government Pleader and they look after criminal work.

The State Governments have their own law officers, in addition to the Advocate-General and the Government Pleader. The law officer is designated Remembrancer of Legal Affairs.

Sheriffs are attached to the High Courts of Bombay, Calcutta and Madras.

There are Official Assignees in three States — Maharashtra, W. Bengal and Tamil Nadu. The appointment is made by the Chief Justice of the High Court concerned.

In addition to the Official Assignee, a Deputy Official Assignee may also be appointed. Another officer of the court is the Insolvency Registrar who may be vested with the powers mentioned in section 6 of the Presidency Towns Insolvency Act.

The heirs of a deceased Hindu are entitled to get a share even in the undivided interest in the Mitakshara coparcenary property. A Hindu can make a will even of his undivided interest in the coparcenary property.

The Hindu Adoptions and Maintenance Act 79 of 1956 was passed in December 1956. Under the Act the adoption of a son or a daughter is permitted. The consent of the wife is necessary for adoption, which is now purely secular in character.

#### SOCIAL REFORMS

Besides these laws, Parliament has passed two important Acts relating to social reform. The Suppression of Immoral Traffic in Women and Girls' Act (No. 104 of 1956) was passed in December 1956. This Act provides in pursuance of the International Convention signed at New York on 9th' May 1950 for the suppression of immoral traffic in women and girls. The Women's and Children's Institutions Licensing Act (No. 105 of 1956) was passed in December 1956. This Act provides for the licensing of such institutions and of matters relating to them.

Yet another Act, in social reform is the Probation of Offenders Act (20 of 1958).

Dowry Prohibition Act was passed in 1961. Public Provident Fund Act was passed in 1968.

### CONSTITUTION OF INDIA

### STATES

NDIA, that is, Bharat is a sovereign democratic republic.

It is variously called the Republic of India, the Union of India, The Indian Union.

The Union is made up of 17 States and 10 Union Territorries. A new State called the hill State of Meghalaya, an autonomous State which is in the nature of a State within the State of Assam came into existence on April 2, 1970.

See page 1 under "Physiography" for more details.

### **FEDERATION**

The constitution of India is quasi-federal in nature.

The distribution of power between the Centre and the local administrations follows the accepted principle that subjects which for convenience and efficiency ought to be administered on an all-India basis are vested in the Union Government, while others (of the nation-building sort) which can be conveniently administered on a local basis are vested in the State Governments.

Thus, defence, foreign affairs, transport and communications, currency and coinage, banking, customs and export duties, and the administration of justice at the higher level are all Central subjects, while State powers include those over police, public health, education, agriculture, forests and so on.

There is a third group of subjects that fall betwixt and between such as trade and industry, economic and social planning, social security and insurance, labour welfare, price control, electricity, newspapers and books and vital statistics. On these subjects both the Centre and the State can freely legislate, it being understood that whenever there is conflict between Union and State legislation the Union laws will ordinarily prevail.

Three detailed lists of subjects are drawn up, the Union List, the State List and the Concurrent List, and the residuary power rests with the Union. That is to say, if at any time, a subject which does not figure in any of the three lists, comes up for consideration the power of dealing with it lies with the Union Government.

The three lists are given in the Seventh Schedule.

It may be added that the Union List has 97 entries, the State List 65 and the Concurrent List 47.

All elections are directed and controlled by an Election Commission, Elections to the Lok Sabha and the Legislative Assemblies of the States are on the basis of adult suffrage. Seats are reserved in the Lok Sabha for the Scheduled Castes and the Scheduled Tribes.

There is a Public Service Commission for the Union and every State has a Public Service Commission. The Union Public Service Commission operates for the Union Territories as well.

In the Indian Union the rights of Indian citizenship are given to 1. One who is born in India, 2. Either of whose parents was born in India, and 3. Who has been a resident of India for five years. Provision is also made for persons who are affected by the partition of the sub-continent.

#### **FUNDAMENTAL RIGHTS**

Certain fundamental rights are guaranteed to every citizen for the first time. All citizens have equal opportunities.

Freedom of speech and expression is guaranteed, and the right to hold meetings (without arms), to form unions and associations, to move freely in India and to reside in any part, to acquire property and to practise any profession are also assured to the citizens of India under the Constitution.

Preventive detention is also forbidden except in certain cases.

Children under the age of 14 will not be allowed to be employed in factories and forced labour like begar is prohibited.

India is a secular State and as such there is freedom of conscience.

Untouchability is abolished.

These fundamental rights can be enforced by the Supreme Court and by High Courts which have the authority to issue prerogative writs such as habeas corpus, certiorari, prohibition, etc.

It must also be pointed out that some of these fundamental rights can be suspended in case of emergency, and the remedies available for their enforcement may also be suspended by an order of the President.

The Supreme Court of India delivered an important judgement in *Golaknath* case in Feb. 1967 laying down that Parliament has no power to amend the constitution with a view to curtailing or abridging the fundamental rights.

The Scheduled Castes and Tribes have special representation in the legislatures of the country upto 1970 (see separate articles on the Scheduled Castes and Tribes). In certain tribal areas there are autonomous administrative bodies.

As for Anglo-Indians, the President may nominate not more than two members of the Anglo-Indian community to the Lok Sabha if he thinks that the community is not adequately represented. Similar power is given to the Governor of a State. The Governor can nominate one member to the Legislative Assembly. In West Bengal, however, he can nominate not more than two.

The claims of the Scheduled Castes and the Scheduled Tribes are to be considered in making appointments to services.

All reservation including reservation of seats for Scheduled and Tribal classes are to cease at the end of 1970 according to the eighth amendment to the constitution.

A Bill extending these reservations upto 1980 is passed by Parliament.

A special officer for the Scheduled Castes and the Scheduled Tribes has been appointed.

#### UNION EXECUTIVE

The executive head of the Indian Union is the President. He is elected by the elected members of the Houses of Parliament and the Legislative Assemblies of all the States. His term of office is five years, and he is eligible for reelection. Only a person who is a citizen of India and has completed the age of thirty-five years is qualified to contest the election.

He is the Supreme Commander of the Armed Forces. He has the power to grant pardons or remission of punishment.

The President is entitled to the use of an official residence without payment of rent, and a salary of Rs. 10,000 per month and allowances. Provision has also been made by an Act of Parliament for a pension of Rs. 15,000 per annum. He is also entitled to a maximum of Rs. 12,000 per annum for the sake of secretarial staff and other expenses.

The President has the power of summoning, proroguing and dissolving Parliament. At the commencement of each session he addresses both Houses of Parliament assembled together. He has the right of sending messages to Parliament and sending back a Bill presented to him for his assent. This power however can be used by him only once. He has right to veto a Bill passed by Parliament.

The President has legislative powers under certain circumstances. When neither of the Houses of Parliament is in session and the President is satisfied that circumstances exist which make immediate action necessary he may promulgate an ordinance.

Such ordinance must be put before both the Houses of Parliament and will cease to operate at the expiration of six weeks from the reassembly of Parliament.

The President can also declare emergency if he is satisfied that the security of India or any part thereof is threatened either by war or internal disturbances when the legislature is in session. Such a proclamation would give additional powers to the Union executive and the Legislature.

The judges of the Supreme Court and the High Courts, the Attorney-General of India and the Comptroller and and Auditor-General of India are all appointed by the President. The heads of States, i.e., Governors are also appointed by the President.

The President has the power of appointing ambassadors abroad and receiving diplomatic representatives of foreign

All executive action of the Government of India is taken in the name of the Pesident and it is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers.

Provision is made for the impeachment of the President, by Parliament, for violation of the Constitution. If such a resolution is passed by a majority of not less than twothirds of the total membership, such a resolution has the effect of removing the President from office.

In the exercise of his functions, the President has the aid and advice of a Council of Ministers, with the Prime Minister at the head of it. The President appoints the Prime Minister and other Ministers are appointed on the advice of the Prime Minister.

The Council of Ministers is collectively responsible to the Lok Sabha (the Lower House). Every Minister must be a member of either House of Parliament, and he is required to take an oath of office and secrecy.

The salaries and allowances of Ministers are determined by Parliament.

There is a Vice-President of India, who is ex-officio Chairman of the Rajya Sabha (the Upper House). The Vice-President acts as President during a casual vacancy in the office of the President. He is elected by the members of both Houses of Parliament and his term of office is five years.

#### UNION PARLIAMENT

The Parliament consists of the President and two Houses known as, as already mentioned, the Lok Sabha and the Rajya Sabha. It must meet at least twice a year. The maximum strength or the two Houses is fixed at 250 (12 nominated) for the Rajya Sabha and 525 for the Lok Sabha (not more than 500 from the States and 25 from the Territories).

The Rajya Sabha is elected by the elected members of the Legislative Assemblies of the States and of the Union Territories of Himachal Pradesh, Manipur, Tripura and Pondicherry, while the Lok Sabha is elected directly by the voters in the country. Delhi has now a Metropolitan Council.

The elections to the Lok Sabha are based on adult suffrage and joint electorates. There is no reservation of seats for any group except Scheduled Castes and Scheduled Tribas The Rajya Sabha is a permanent body with one-third of its members retiring every second year. The Vice-President of the Union is also the Chairman of the Rajya Sabha. The Rajya Sabha has also a Deputy Chairman.

The Lok Sabha has a duration of five years, ordinarily. There is a Speaker and a Deputy Speaker of the House both of whom are elected by its members.

All these posts carry a salary and allowances.

Under certain circumstances, the members can be disqualified and their seats declared vacant.

All legislation requires the consent of both Houses of Parliament, and every question is decided by a simple majority of those present and voting except on amendments to the constitution.

Money Bills can be introduced only in the Lok Sabha. The Rajya Sabha can only return a bill with its recommendations to the Lok Sabha within a period of fourteen days of its receipt. Bills passed by Parliament are submitted to the President for his assent. Only on such assent being given does the Bill become law.

A Bill normally goes through the following stages. It is first published. After introduction there is a general debate. Third, there is a clause-by-clause discussion. Then it is voted upon. A specially important measure may go before a select committee or a joint select committee. A Money Bill has a slightly different passage. After it has been passed in the Lok Sabha it is sent to the Rajya Sabha which has to return it within fourteen days with its recommendations which may be accepted or rejected.

The quorum is fixed at one-tenth of the membership of the House.

The language used in Parliament is either Hindi or English.

#### Distribution of Seats

The distribution of seats in the Rajya Sabha is as follows:

Andhra Pradesh 18; Assam 7; Bihar 22; Gujarat 11; Haryana 5; Kerala 9; Madhya Pradesh 16; Maharashtra 19; Mysore 12; Orissa 10; Punjab 7; Rajasthan 10; Tamil Nadu 18; Uttar Pradesh 34; West Bengal 16; Jammu and Kashmir 4; Delhi 3; Himachal Pradesh 3; Manipur 1; Pondicherry 1; Tripura 1; Nagaland 1; Total 228,

The President has nominated 12 members. Thus the total of elected and nominated members is 240.

The allocation of seats in the Lok Sabha is as follows:

Andhra Pradesh 41; Assam 14; Bihar 53; Gujarat 24; Haryana 9; Jammu & Kashmir 6; Kerala 19; Madhya Pradesh 37; Maharashtra 45; Mysore 27; Nagaland 1; Orissa 20; Punjab 13; Rajasthan 23; Tamil Nadu 39; Uttar Pradesh 85; West Bengal 40; Andaman and Nicobar Islands 1, Chandigarh 1, Dadra & Nagar Haveli 1; Delhi 7; Goa, Daman & Diu 2; Himachal Pradesh 6; Laccadive, Minicoy and Amindivi Islands 1; Manipur 2; Pondicherry 1; Tripura 2; NEFA 1; Total: 521. There are two nominated members. Hence the Total is 523.

Out of these 37 are reserved for the Scheduled Tribes and 75 for the Scheduled Castes.

Parliament's control over the administration is also exercised through a series of committees. The Committees can summon witnesses or require documents to be produced. There is a Committee on Privileges which sees to breaches of Parliamentary privilege, a Business

Advisory Committee which helps the Ministry of Parliamentary Affairs in drawing up the programme for a session.

Two very important Committees are the Public Accounts Committee and the Estimates Committee. They are elected by the House of the People and Ministers are barred from membership. The Public Accounts Committee ensures that money is spent for the purpose for which Parliament has voted it, and criticises cases of waste, or extravagance. The Estimates Committee examines possibilities of economy and reform in financial administration and the manner in which estimates may be presented to Parliament.

The programme of work for any session is worked out by the Ministry of Parliamentary Affairs.

#### SUPREME COURT

(See under 'Administration of Justice').

### STATE GOVERNMENT

The 17 States have Governors at their heads, the Union Territories Andaman & Nicobar Islands, Manipur and Tripura have Chief Commissioners, Delhi, Himachal Pradesh, Goa and Pondicherry have Lieutenant-Governors, Laccadive and Dadra have Administrators.

#### **Zonal Councils**

There are five zones: Northern zone (Punjab, Rajasthan, Kashmir, Delhi and Himachal Pradesh); Central zone (Uttar Pradesh and Madhya Pradesh); Eastern zone (Bihar, West Bengal, Orissa, Assam, Manipur and Tripura); Western zone (Gujarat, Maharashtra and Mysore); Southern zone (Andhra Pradesh, Tamil Nadu, and Kerala and also Mysore as a permanent invitee).

(More details were given in the previous edition of the Directory).

### States

The Governor of a State is appointed by the President. Executive power is vested in the Governor who is appointed for a term of five years, ordinarily. Only a citizen of India and one who has completed 35 years of age, is eligible for such an appointment.

The Governor, like the President, has power to grant pardon, etc. He will have a Council of Ministers to aid and advise him. The Governor also appoints an Advocate-General for the State.

#### Legislature

Ten States, Andhra Pradesh, Bihar, Kashmir, Madhya Pradesh, Tamil Nadu, Maharashtra, Mysore, Uttar Pradesh have two Houses of Legislature; the others, only one. The two Houses are called the Legislative Assembly (sometimes Vidhan Sabha) and the Legislative Council (sometimes Vidhan Parishad). The former has a duration of five years, while the latter is a permanent body with one-third of the members retiring every second year.

The minimum strength of an Assembly is 60 and the maximum 500.

The minimum strength of a Council is 40, and the maximum one-third of the State Assembly.

An Assembly is elected directly on a basis of adult franchise with reservation of seats for the Scheduled Castes and Tribes. The composition of a Council is more complicated. About a third are elected by the Assembly, another third by local authorities (municipalities, district boards), about a twelfth by registered teachers in schools not lower than the secondary school standard, and about

a twelfth by registered graduates of not less than three years' standing. And the rest are nominated by the Governor from among persons who have distinguished themselves in art, science, literature, co-operation and social service.

The Legislature must meet at least twice a year. While the Assembly consists of members who are directly elected from territorial constituencies, the Council consists of members nominated by the Governor, elected by the Assembly and of representatives of local bodies and special interests.

The legislature can frame its own rules of procedure but it is more or less the same as in Parliament. The quorum for a meeting is one-tenth of the membership or ten whichever is higher.

In case of disagreement, if the Bill is passed a second time after three months of its reference to the Council it automatically becomes law after one month of its passage in the lower house.

The State legislature too has its Committees like Parliament.

For the number of seats (including nominated members) in the Legislative Assembly and the Legislative Council see under each Assembly or Council in the article "Legislative Assemblies and Legislative Councils".

About the Kashmir Assembly it may be mentioned that 25 seats are now vacant waiting to be filled in by members from that part of Kashmir now under occupation by Pakistan troops.

The effective strength of the Assembly is 75.

The right of summoning, proroguing and dissolving the legislature is vested in the Governor, who addresses the legislature at the commencement of each session.

Like the Parliament there is a Speaker, a Deputy Speaker, a Chairman and a Deputy Chairman for the Legislative Assembly and the Legislative Council respectively. These officers of the legislatures are entitled to salary and allowances.

The language in the legislature can be either Hindi or English or any other language allowed by the Speaker.

The State Legislatures cannot discuss the conduct of any judge of the Supreme Court or of a High Court in the discharge of his duties.

As the Governor is a part of the legislature, he has certain legislative powers. He can promulgate ordinances during the recess of the legislature; such ordinances must be placed before the legislature and cease to operate at the expiration of six weeks from the reassembly of the legislature.

The salary of the Governor is Rs. 5,500 per month and he is also entitled to certain allowances.

### UNION TERRITORIES

(See page 1 under "Physiography".)

There are special provisions for Hill Areas of Manipur Section 52).

The Act also provides for appointment of a Judicial Commissioner.

Provision is also made for introduction of President's rule in case of failure of constitutional machinery in the Union Territory.

There is a High Court for each State and a Judicial Commissioners' Court each for the Union Territories of Manipur, Tripura and Goa, Daman and Diu.

The salary of a Chief Justice of a State is Rs. 4,000, and of a High Court Judge Rs. 3,500.

A High Court for Delhi and Himachal Pradesh is constituted under an Act of Parliament.

#### **EMERGENCY PROVISIONS**

If the President is satisfied that a grave emergency exists, and the security of India or any part thereof is threatened either by war or internal disturbance, he may make a declaration to that effect. Such proclamation must be approved by both the Houses of Parliament, before the expiration of two months, otherwise it ceases to operate at the end of that period. As a result of this proclamation Parliament will be authorised to legislate on items included in the State list and the President, to issue directions to the Governor. The President of India made a Proclamation of Emergency in October 1962 after the Chinese aggression.

The President may proclaim a failure of constitutional machinery in a State if he learns that the Government of the State cannot be carried on according to the provisions of the constitution. If this is done, President's rule will be introduced in the State. Upto Sept. 1969, there have been 17 cases of failure of constitutional mechanism in the States.

This, however, would not be applicable to the functions of the High Courts. Somewhat similar provision is also made for financial emergency.

#### AMENDMENT OF THE CONSTITUTION

For purposes of amendment the items are divided into three classes with a different procedure for each class.

For amendment of the provision with respect to the Supreme Court and the High Courts, the distribution of legislative powers between the Centre and the States, the representation of the States in Parliament, etc., the amendment must be passed by both the Houses of Parliament by a majority of the total membership of the House and by a majority of two-thirds of the members present and voting, and must further be ratified by the legislatures of not less than one-half of the States.

In other cases no reference to the State legislatures is necessary. Parliament by itself can amend the Constitution in the manner mentioned above. In some cases amendments can be effected even by a bare majority such as is required for the passing of any ordinary law. The Supreme Court in Golaknath case (Feb. 1967) laid down that Parliament has no power to curtail fundamental rights.

There were 22 amendments to the constitution upto the end of September 1969.

### CIVIL AVIATION

TOTAL public sector outlay for Civil Aviation for the Fourth Plan (1969-74) according to the Final Plan Document: Rs. 203.00 crores.

Provision for Revenue or current expenditure in the Budget Estimates for 1970-71: Rs. 8·47 crores (net). Provision for capital outlay on aviation during 1970-71: Rs. 10·80 crores.

#### AIR-TRANSPORT

In addition to the two Corporations — Indian Airlines Corporation and Air India — there were 18 flying clubs and nine air transport companies holding permits for non-scheduled services on 31st December 1969.

During the year 1969\*, approximately 16,653 hours and 5,175,800 kilometres were flown on non-scheduled operations against the previous year's figures of 15,304 hours and 4,573,000 kilometres. The number of passengers and amount of freight carried were approximately 151,087 and 11,346 tonnes respectively as against the previous year's figures of 152,511 and 12,131 tonnes of freight.

During 1969 (estimated), 149,262 hours and 66,590,000 kilometres were flown on scheduled air services against the previous year's figures of 135,425 hours and 60,047,000 kilometres. The number of passengers and amount of freight carried during 1969 (estimated) were 2,499,200 and 30,759 tonnes against the 1968 figures of 2,108,229 passengers and 25,394 tonnes of freight.

#### INDIAN AIRLINES CORPORATION

(Airlines House, 113, Gurdwara Rakabganj Road, New Delhi)

The present fleet consists of seven Caravelles VI-N, 14 Viscounts 700 Se., 14 Fokker Friendships, 12 HS-748's and nine DC-3's. On order: Three HS-748's. An order for buying seven Boeing 737 for the Indian Airlines from the Boeing Co. was signed on March 19, 1970. The delivery of the planes will begin from November this year at the rate of a plane a month. The plane will have a capacity of 115 passengers.

Total number of employees as on 31-3-1969: 13,178. The crew strength consists of 425 pilots. The airline's services extend over the entire sub-continent, including Afghanistan, Nepal, Burma and Ceylon.

The operations of the Corporation have been divided into four regions, namely, Delhi, Bombay, Madras and

Calcutta.

Members of the Board: S. Mohan Kumaramangalam (Chairman); J. R. D. Tata, Air Chief Marshal P. C. Lal, Air Marshal M. S. Chaturvedi, K. N. Mookerjee, K. T. Satarawala, N. Khosla, Ravi J. Matthai, Y. T. Shah.

General Manager: K. T. Satarawala.

Assistant General Manager: B. Israni.

Financial Controller: V. Satyamurti.

Director of Engineering: A. H. Mehta.

Director of Operations: Capt. R. G. Patwardhan.

Director of Planning: R. S. Bahadur.

Commercial Director: C. J. Lisely.

Controller of Stores & Purchases: J. A. D'Silva.

Director of Personnel: M. K. Basu.

Public Relations Manager: H. J. D'Penha.

Secretary: S. K. Chatterjee.

Controller, Central Space Control: S. Sen Gupta.

Bombay Region: Regional Director: Capt. D. A. Samant.

Calcutta Region: Regional Director: H. N. Kelawala.

Delhi Region: Regional Director: K. N. Kathju.

Madras Region : Regional Director : Capt. A. M. Kapur.

Indian Airlines is now a full member of the International Air Transport Association. It has set up training establishments for its Flying, Engineering and Traffic personnel. Besides regular passenger and freight services, I.A. operates a Night Airmail Service linking Bombay, Delhi, Calcutta and Madras.

During April 68-March 69, the Indian Airlines on its scheduled services, flew approximately 38,075 million kilometres, carrying 1,957,875 passengers, 14,833 tonnes of cargo and 10,125 tonnes of mail.

The capacity ton kilometres operated during the year 1968-69 under review is 201,281,476 as against 203,085,613 during the corresponding period of 1967-68.

The airline has introduced a Scholarship Scheme for promising children of low paid staff.

The direct contribution of Indian Airlines to the budget revenues of 1968-69 amounts to nearly Rs. 11.30 crores.

The airline's foreign exchange earnings were Rs. 7·61 crores in 1968-69 thus making it one of the big net earners of foreign exchange.

The balance of Rs. 3.96 crores comprises payment of excise and customs duty which amounts to Rs. 2.74 crores on fuel alone in this financial year and sales tax of Rs. 1.22 crores. The operating profit for 1968-69 was Rs. 3.57 crores against Rs. 1.33 crores in the previous year and net profit was Rs. 1.66 crores against loss of Rs. 0.26 crore in 1967-68.

#### AIR-INDIA

Air-India now has a total of 35 online and 79 offline sales offices covering five continents.

Air-India at present operates seven services a week to New York via London. London is also served with eight additional terminator services, two via Moscow and six via Middle East Europe. In addition, Air India has introduced a twice-weekly Gulf Terminator service to Kuwait, one of which operates via Bahrain and the other via Dubai. The airline also operates four services a week to Tokyo; three to Nairobi, one of which is extended to Entebbe; and three to Singapore, one of which is extended to Jakarta. Of the remaining two services to Singapore, one is operated to Sydney via Perth and the other to Nandi via Perth and Sydney. In addition a weekly service is operated to Mauritius.

Air-India, today has a fleet of five Boeing 707-437 intercontinental jets, three Boeing 707-337Bs and two Boeing 707-337Cs.

During 1967-68 Air-India flew 22·861 million revenue kilometres carrying 285,459 revenue passengers, 1,516 tonnes of mail and 10,494 tonnes of cargo. Comparable figures for 1966-67 were 18·792 million revenue kilometres, 254,736 revenue passengers, 1,411 tonnes of mail and 9,657 tonnes of cargo.

Members of the Board: Chairman: J. R. D. Tata; Members: S. Mohan Kumaramangalam, Air Chief Marshal P. C. Lal, Air Marshal M. S. Chaturvedi, K. T. Satarwala, Y. T. Shah, N. Khosla, K. N. Mookerjee, Ravi J. Matthai.

<sup>\*</sup> Figures are estimated.

Air-India Executives: J. R. D. Tata (Chairman); Air Mashal M. S. Chaturvedi (General Manager); S. K. Kooka (Commercial Director); K. K. Unni (Asst. General Manager); Capt. K. Vishvanath (Director of Planning (Technical)); K. G. Appusamy (Director of Engineering); Capt. K. M. Mathen (Director of Operations); C. V. R. Rao (Financial Controller); S. C. Kale (Controller of Stores & Purchases); S. K. Nanda (Chief Personnel Manager).

#### AIR-INDIA OFFICES

Head Office: Air India Building, 20th Floor, Nariman Point, Bombay 1-BR. Tel. 292728.

Commercial Headquarters: Bank of India Building, Fourth Floor, Mahatma Gandhi Road, Bombay-1 BR. Tel. 256811.

Other Departments: Bombay Airport, Santa Cruz, Bombay-29 AS. Tel. 535461.

Information/Booking: 131, Mahatma Gandhi Road, Fort, Bombay-1 BR. Tel. 259380.

Geneva Office: 1-3 Rue de Chantepoulet; London Office: 17/18 New Bond Street, WIY OBD; New York Office: 410 Park Avenue, New York 10022; Nairobi Office: Lugard House, Government Road; Tokyo Office: Hibiya Mitsui Building; Sydney Office: P. & O. Building, 3 Elizabeth Street; Nandi Office: Terminal Building, Nandi Airport.

Operating Results: 1968/69 (Rupees in Crores). Operating Revenue: 59·50; Operating Expenses: 54·68; Operating Profit\*: 4·82; Net Surplus after Tax: 1·84.

Total No. of employees (as on March 31, 1969): 8,821; Unduplicated route Kilometres (as on March 31, 1969): 57,603.

### **AERODROMES**

At the end of October 1969, 85 aerodromes were maintained by the Civil Aviation Department.

Aerodromes by Categories: International Aerodromes (4): Bombay Airport, Calcutta Airport, Delhi Airport, Madras Airport.

Major Aerodromes (11): Agartala; Ahmedabad; Amritsar; Begumpet; Delhi (Safdarjung); Gauhati; Jaipur; Lucknow; Nagpur; Patna; Tiruchirapalli.

Intermediate Aerodromes (38): Aurangabad; Balurghat; Baroda; Behala; Belgaum; Bhavnagar; Bhuntar (Kulu); Bhopal; Bhubaneswar; Bhuj; Bombay (Juhu); Coimbatore; Gaya; Indore; Junagadh (Keshod); Kailashahar; Kamalpur; Kandla; Khajuraho; Khowai; Kota; Kumbhirgram; Madurai; Mangalore (Bajpe); Mohanbari; Nagargul (Nadirgul) (Gliderdrome, Hyderabad); North Lakhimpur (Lilabari); Pantnagar (Phoolbagh); Porbandar; Port Blair; Rajkot; Ranchi; Trivandrum; Tulihal (Imphal); Udaipur; Varanasi (Banaras); Vijayawada; Visakhapatnam.

Minor Aerodromes (32): Akola; Bilaspur; Chakulia; Cooch-Behar; Cuddappah; Donakonda; Hadapsar (Gliderdrome, Poona); Jhansi; Jharsuguda; Jabalpur; Kanpur (Civil); Khandwa; Kolhapur; Lalitpur; Malda; Muzaffarpur (Rewaghat); Mysore; Palanpur (Deesa); Panagarh; Panna; Pasigaht; Raipur; Rajahmundry; Ramnad; Raxaul; Rupsi; Satna; Shella; Sholapur; Tanjore; Vellore; Warangal.

#### WORKS

During the period from 1st January 1969 to 31st October 1969, work was completed on the extension of 14/32 runway to 2,560 metres (8,400 feet) at Bombay airport and extension, additions and alterations to, provision of airconditioning plant in the arrival lounge and customs block and provision of furniture in the terminal building

at Delhi airport. Works were also completed during the period on extension of runway at Baroda aerodrome, strengthening of runway at Varanasi aerodrome and all-weather runway at Khajuraho aerodrome.

At the end of October 1969, work was in progress on the construction of new international terminal building, the terminal block and control tower at Calcutta airport and construction of a new terminal building, apron and taxi track at Begumpet aerodrome. Other important works in progress at the end of the period under review include extension of 10/28 runway to 3,810 metres (12,500 feet) at Delhi airport, construction of fair weather strip at Hassan aerodrome, strengthening and extension of the runway to 1,768 metres (5,800 feet) at Mangalore aerodrome, strengthening of the runway at Begumpet aerodrome and extension of the main runway to 1,829 metres (6,600 feet) at Baroda aerodrome.

#### TRAINING CENTRE, ALLAHABAD

The Civil Aviation Training Centre, Allahabad comprises Aerodrome and Communication Schools. Ab-initio as well as refresher training is given in these schools to departmental officers and to the foreign nationals as are approved by the Government.

The Civil Aviation Fire Service Training Centre at Dum Dum gives training in the Basic Course in Crash Fire Rescue for regular fire crew. The Government Gliding Centre at Poona gives training for glider instructors.

### FLYING CLUBS

At the end of October 1969, there were 24 subsidised flying clubs with their headquarters at Amritsar, Hyderabad, Gauhati, Banasthali, Patna, Bombay, Coimbatore, New Delhi, Bangalore, Baroda, Lucknow, Hissar, Jamshedpur, Karnal, Trivandrum, Indore, Nagpur, Madras, Jullundur Cantt., Bhubaneshwar, Patiala, Jaipur, Behala (Calcutta) and Raipur.

Gliding Centres/Clubs: At the end of October 1969, there were three Government Gliding Centres at Bangalore, Lucknow and Poona and 13 subsidised Gliding Clubs at Ahmedabad, Amritsar, New Delhi, Deolali, Jaipur, Kanpur, Pilani, Raipur, Patiala, Patna, Jullundur Cantt., Agra and Hissar.

### AERONAUTICAL COMMUNICATION SERVICES

At the end of October 1969, there were 92 Aeronautical Communication Stations providing 177 Radio Navigation facilities and 526 Aeronautical Communication Channels.

List of Aeronautical Communication Stations maintained by the Civil Aviation Department as on 31st October, 1969: Agartala, Ahmedabad, Akola, Aligarh, Allahabad, Amritsar, Aurangabad, Balurghat, Bangalore, Banihal, Baroda, Belgaum, Bellary, Berhampore, Berachampa, Bhatinda, Bhavnagar, Bhopal, Bhubaneswar, Bhuj, Bombay, Calcutta, Chakulia, Cochin, Coimbatore, Cooch-Behar, Dhanbad, Delhi (Palam), Delhi (Safdarjung), Farukhabad, Gauhati, Gaya, Hissar, Khajuraho, Gwalior, Hyderabad (Begumpet), Imphal, Indore, Jabalpur, Jaipur, Jammu, Jamnagar, Jamshedpur, Jharsuguda, Jodhpur, Kailashahar, Kamalpur, Kandla, Kanpur, Katihar, Keshod, Khowai, Kota, Kud, Kulu, Kumbhirgram, Lalitpur, Lilabari, Lucknow, Madras, Madurai, Magadi, Mandasor, Mangalore, Mehanbari, Muzaffarnagar, Muzaffarpur, Nagpur, Panagarh, Passighat, Pataudi, Patna, Pant Nagar (Phoolbagh), Porbandar, Port Blair, Qazi Gund, Rajpur, Rajkot, Ranchi, Roorkela, Kupsi, Sikandrabad, Songadh, Srinagar, Tarakeswar, Tiruchirapalli, Trivandrum, Udaipur, Varanasi, Vijayawada, Vikarabad, Visakhapatnam.

ROADS 163

#### AIRCRAFT

At the end of October 1969, 641 aircraft held current certificates of registration and 255 aircraft held current certificates of airworthiness. During the period from 1st January 1969 to 31st October, 1969, 28 new aircraft were registered and the registration of 11 aircraft was cancelled. Two hundred and forty-three aircraft including three aircraft of foreign nationality were inspected for issue or renewal of certificate of airworthiness.

The number of gliders registered at the end of October 1969, was 96.

On 31st October 1969, 53 aircraft were engaged in aerial work and agricultural operations.

### RESEARCH AND DEVELOPMENT

Research and development for Civil Aviation are undertaken by the Research and Development Organisation of the Civil Aviation Department at the Technical Centre, Safdarjung, New Delhi.

The Research and Development Directorate in Civil Aviation has two distinct functions/activities. One is airworthiness engineering function for the Directorate General of Civil Aviation, including field work and operational safety. These include type certification, approval of modifications, laying down of Design and Operational Airworthiness requirement, service failure investigations, evaluation of performance and economics of civil transport aircraft, personal planes, agricultural aircraft and heli-

copters and other ad-hoc technical problems referred to from time to time. The second function relates to research, development and evaluation at the Technical Centre Laboratory. These include design and development of light aircraft and gliders, standardisation and development testing of aeronautical materials and processes, development of safety devices and operational research.

#### ACCIDENTS

During the period from 1st January, 1969 to 31st October 1969, there were 21 major accidents in India involving 19 Indian registered aircraft and one foreign registered aircraft. The same foreign registered aircraft having crashed twice accounted for two accidents. In addition to this, there was one major accident in East Pakistan involving an Indian registered aircraft. Three of the accidents to Indian registered aircraft were fatal resulting in the death of 47 persons including six members of crew.

Of the 20 Indian registered aircraft involved in accidents, four were operating scheduled passenger services, two were operating non-scheduled flights, six were engaged in training and cross-country flights, five in agricultural operations and three on joy-rides and miscellaneous flights.

At the end of October, 1969 out of the 20 accidents to Indian registered aircraft, 11 had been investigated and eight were under investigation by the Department. The accident to Indian registered aircraft which crashed in East Pakistan was under investigation by the Pakistan Government authorities.

### ROADS

T is estimated that India in 1914 had 273,000 Km. of roads. Against this, the length in April 1969 was 941,100 Km. made up of 317,800 Km. of metalled roads and 623,300 Km. of unmetalled roads. Included in this, however, are roads constructed in Community Development and N.E.S. Blocks, amounting to about 370,000 Km. which are generally mere tracks and are often not properly maintained.

On the administrative side roads may be divided into two main classes. State Roads under the Public Works Department and Local Roads in charge of local bodies.

#### 1st, 2nd & 3rd FIVE YEAR PLANS

The progress of road development during the past three Plan periods and during the three successive Annual Plans has been as follows. (Figures are in kilometres, the first indicating surfaced, second unsurfaced and third total): First Plan (183,023; 315,321; 498,344); Second Plan (235,790; 473,330; 709,120); Third Plan (280,586; 611,136; 891,722); 1969 (Estimated) (317,800; 623,300; 941,100).

The financial allocations for road development from the beginning of the First Five Year Plan have totalled a sum of Rs. 1,134·86 crores, distributed as under (in Rs. crores): First Plan 134·47; Second Plan 245·80; Third Plan 451·12; 1966-67: 111·53; 1967-68: 100·88; 1968-69: 91·06; Total 1,134·86.

### NATIONAL HIGHWAYS

National Highways include the following roads:—1. The Grand Trunk Road from Calcutta to Amritsar via Banaras, Kanpur, Agra and Delhi; 2. The Agra-Bombay Banada; 3. The Bombay-Bangalore-Madras Road; 4. The Madras-Calcutta Road; 5. The Calcutta-Nagpur-Bombay Road; 6. The Banaras-Nagpur-Hyderabad-Bangalore-

Road; 8. The Road from Ahmedabad to Kandla with a branch Road to Porbandar; 9. The Hindustan-Tibet Road from Ambala to Tibet border via Simla; 10. The Delhi-Lucknow-Gorakhpur-Muzzafarpur Road with a branch Road to Nepal border; 11. The Assam Access Road; 12. The Assam Trunk Road on the South Bank of the Brahmaputra; 13. The Road branching off from the Assam Trunk Road towards the Burma border through the State of Manipur.

Cape Comorin Road; 7. The Delhi-Ahmedabad-Bombay

In 1961 three additional roads were classed as National Highways. They are Jabalpur-Bhopal-Biaro Road, Agra-Jaipur-Bikaner Road and Sholapur-Chitradurg Road. Consequently, the length of the National Highway system has now increased to 23,720 Km. (14,739 miles).

In April 1969 there were still 402 Km. of missing links on this road system. Seventeen major bridges are still to be built, 1,400 Km. of low grade surfaces need to be upgraded and 3,000 weak, narrow or damaged bridges need to be replaced.

Some of the important works completed on national highways so far are the Barakar and Poon bridges and the rail-road bridge over the Ganga near Mokameh in Bihar, the Kathjuri and Kuakhai bridges in Orissa, Mahi bridge in Gujarat, Pennar and Champavati bridges in Andhra Pradesh, Pugalur and Palar bridges in Tamil Nadu, Beyne and Ghagger bridges in the Punjab,\* Gheesh, Rupnarain and Leesh bridges in West Bengal, Bygool, Bhakra and Betwa bridges in U.P., the Chambal bridge near Dholpur in Madhya Pradesh, Tungabhadra bridge at Hospet in Mysore, Bassein creek bridge near Bombay in Maharashtra and the bridge over the Ganga at Gurhmukeshwar in U.P.

<sup>\*</sup> Composite State.

Among the important projects in progress are the construction of the "Pipra-Kasia link road and the bridge over the Gandak at Dumariaghat on National Highway No. 28 in Bihar, the construction of the Yamuna bridge behind the Humayun's tomb in Delhi, Neendkara bridge on N. H. No. 47 in Kerala, Thana Creek bridge on the Bombay-Panvel route in Maharashtra, improvement of N. H. Nos. 31, 37 and 38 in certain sections of Assam, and bridges over the Yamuna at Agra, the Ganga at Allahabad (N.H. No. 2) and the Ghagra at Dobrighat (N. H. No. 29) in Uttar Pradesh.

The west coast road, though under construction mainly at the cost of the Central Government, has not yet been declared a National Highway. Passing through the States of Maharashtra, Mysore, Goa and Kerala this 1,140 km. road from Panvel in Maharashtra to Chalissery in Kerala is expected to be completed by March 1971 at a cost of Rs. 23·15 crores. The Section now remaining to be completed is the portion in Goa territory including a bridge over the river Zuari in addition to a major bridge over Baliapatam with approaches in Kerala.

The actual National Highway lengths (in Km.) in the various States in 1967 were as follows:—

Andhra 2,312, Assam 1,366, Bihar 1,757, Gujarat 1,088, Haryana 697, Kerala 415, M.P. 2,621, Maharashtra 2,393, Mysore 1,183, Nagaland 111, Orissa 1,339, Punjab 436, Rajasthan 1,255, Tamil Nadu 1,707, U.P. 2,341, West Bengal 1,376, Delhi 72, H.P. 87, Manipur 212 and border areas including Jammu & Kashmir 902. Total length excluding missing links 23,720 Km.

#### **EXPRESS HIGHWAYS**

Five express highways designed for fast motor traffic have formed part of recent road schemes. Two of these are at the northern outskirts of Bombay City known as the Western and Eastern Express Highways. The third one joins Calcutta to the Dum Dum Airport. Work on the remaining two express highways, roughly 100 miles each, and connecting Calcutta to Durgapur in West Bengal and Sukinda mines to Paradip port in Orissa, is in progress. The last one is almost complete.

### **NEW ROAD PLAN**

This plan has been prepared for execution during the 20-year period from 1961 to 1981.

The broad outline of the plan is to raise the mileage of roads from 4·10 lakhs in 1961 to 6·57 lakhs by 1981 with provision for two lane carriage-ways on National Highways. The Plan aims at increasing the intensity of roads from 0·32 to 0·52 per square mile of territory. When the plan is completed the average distance from a village in an agricultural area to a metalled road will be reduced from five to three miles and the distance to an unmetalled road will be reduced from two to 1½ miles.

There is also a provision to have 1,000 miles of Expressways with limited access and also grade separation at most of the crossings.

The cost of this scheme is estimated at Rs. 5,200 crores which, it is recommended, should be split up between four 5-year periods as under:—

1961-62 to 1965-66: Rs. 590 crores; 1966-67 to 1970-71: Rs. 1,075 crores; 1971-72 to 1975-76: Rs. 1,545 crores; 1976-77 to 1980-81: Rs. 2,000 crores.

Statement showing how the allotments in the scheme are made—for Highways, District Roads and Village Roads. The first figure indicates the targets proposed in the Plan in miles and the second the cost in Rs. crores (improvement and new construction): National Highways 32,000; 980; State Highways 70,000; 1,580; Major District Roads 1,50,000; 1,360; Other District Roads

1,80,000; 650; Village Roads (Classified) 2,25,000; 630; Total 6,57,000; 5,200.

#### INTERNATIONAL HIGHWAYS

A major development which took shape during the Third Plan period is the linking up of our national highways with the international higways as proposed by the ECAFE.

These highways are divided into two categories, the first consisting of main arterial routes joining the capitals of the countries and the second consisting of other routes joining main cities, ports etc. with the arterial network. Constituting a part of the main international system by linking India with Lahore in Pakistan and Mandalay in Burma the main arterial highway through India is the Amritsar-Delhi-Agra-Calcutta-Golaghat-Imphal road. Next in importance are two routes, Agra via Gwalior, Hyderabad and Bangalore to Danushkodi and Barhi to Kathmandu. Highways of the second category in India will include roads such as Agra-Bombay, Delhi-Multan, Bangalore-Madras, Golaghat-Ledo etc.

#### BORDER ROADS

A "Border Roads Development Board" was formed in March 1960 to accelerate the economic development of the North and North Eastern border areas. Its programme includes improvement of certain existing roads and tracks and construction of new ones. While all road agencies like the State P.W.D. and the Central P.W.D. cooperate with the Board, work is being carried out directly by the Board in the most forward areas and especially at high altitudes and in difficult terrain. The Board has taken over overall responsibility for the maintenance and improvement of the Pathankot-Jammu-Srinagar-Uri National Highway.

World's Highest Road: The world's highest road from Manali to Leh has been completed by the Border Roads Organisation 15 months ahead of schedule. The average altitude of the terrain is 14,000 feet. The road negotiates four very high passes varying from 16,000 to 18,000 feet. It has reduced substantially the distance between Chandigarh and Ladakh.

LENGTH\* OF ROADS IN INDIA (as on 31-3-1967)

(In Kilometres)

State/Union Territory	Surfaced roads	Unsurfaced roads	Total	
(1)	(2)	(3)	(4)	
Andhra Pradesh	26,240	50,151	76,391	
Assam	5,137	36,142	41,279	
Bihar	13,397	39,971	53,368	
Gujarat	14,613	20,326	34,939	
Jammu & Kashmir	3,309	15,123	18,432	
Kerala	19,395	36,434	55,829	
Madhya Pradesh	25,362	39,620	64,982	
Maharashtra	30,126	23,990	54,116	
Mysore	34,370	24,288	58,658	
Nagaland	253	3,720	3,973	
Orissa	9,100	42,278	51,378	
Punjab including Haryan		43,398	55,760	
Rajasthan	17,730	29,627	47,357	
Tamil Nadu	40,831	19,857	60,688	
Uttar Pradesh	26,976	97,299	1,24,275	
West Bengal	16,150	36,613	52,763	
Union Territories**	5,475	24,496	29,971	
CTC)	2.00.000	E 09 999	8 84 159	

Total Kilometres . . 3,00,826 5,83,333 8,84,159 Miles . . (1,86,925) (3,62,465) (5,49,390)

#### REVENUE FROM MOTOR TRANSPORT

In 1968-69 the expenditure on roads is estimated at Rs. 164-28 erores, made up of Rs. 105-23 erores on road construction or improvements and Rs. 59-05 erores on road maintenance. The Governments at the Centre and in the States realised in the year an amount of Rs. 537-41 erores from motor transport, as under:—

	Revenue, 1968-69 (Rs. in Crores)
Central Revenues.  Motor Spirit and Diesel Oil Duties Tyre Excise and Import Duties Vehicle Parts Imports Duties	359-63
State Revenue.  Vehicle Taxes and Petrol Sales Taxes, Passenger and Goods Taxes, etc.	177.78
Total	537 · 41

#### MOTOR VEHICLES

The number of motor vehicles in use in India in March 1968 was 1.307.222.

The distribution of vehicles among the various States are shown in a table under "Motor Vehicles in India" in Automobile Industry. The growth of motor vehicles in India in the past ten years is about 192 per cent the total number having increased from 4.47 lakhs in March 1957 to 13.07 lakhs in March 1968.

### NATIONALISED TRANSPORT

Nationalised bus services covered in 1969 almost the major parts of Gujarat, Maharashtra, Orissa, Delhi, Haryana, Manipur and Himachal Pradesh.

No nationalisation has taken place in Tripura, Goa and Pondicherry; but in the remaining parts of the country the extent to which services have been nationalised varies from one State to another, some having started only experimental nationalisation as in Rajasthan while in some others such as Punjab and U.P., roughly half of the passenger buses are owned by the nationalised sector. Mysore has 32 per cent of buses under State ownership and Andhra Pradesh 36 per cent. In the rest of the country comprising Assam, West Bengal, Tamil Nadu, Jammu &

Kashmir, M.P. and Kerala, State-owned buses vary from 16 to 27 per cent. In the country as a whole nationalised buses accounted for 38 per cent of passenger services in 1969.

Freight transport is operated by certain State Transport organisations such as those in Assam, Maharashtra, Uttar Pradesh, Jammu & Kashmir and Himachal Pradesh. While these freight lorries as a rule operate on charter basis or on scheduled parcel services without monopoly, the State Transport in Assam has a monopoly of the truck traffic on 68 miles of roads and the goods traffic in Himachal Pradesh is a virtual State monopoly. The number of goods lorries operated by nationalised concerns is however not more than one per cent of the total goods vehicles in India.

#### TRANSPORT BODIES

The Roads Wing under the Ministry of Transport gives technical advice and arranges for the allocation of Central Road Fund reserves among the States.

There is an inter-State Transport Commission to develop, co-ordinate and regulate operation of motor vehicles in areas or routes common to two or more States.

There is a Transport Development Council, consisting principally of Ministers and officials.

### **Enquiry Committees**

In 1965 the Government of India appointed three enquiry committees. One known as the Study Group on viable units recommended in 1968 that various forms of encouragement should be afforded by Government to induce transport operators to combine into bigger units so as to be able to provide more efficient services and effect economies in costs. The second Road Transport Taxation Enquiry Committee has found that the incidence of present taxation constitutes disincentive to the growth of road transport. In its report submitted at the end of November 1967, it has recommended that the prevailing taxes which are high should be reduced. The third Committee dealing with the financing of the road transport industry, also made several recommendations in 1968 such as the inclusion of road transport industry in the list of priority industries, restoration of the development rebate originally granted to it and the grant of a further rebate of 8 per cent from income tax to ensure that the development of road transport matches the future needs of the economy.

### SOME ALL INDIA CORPORATIONS

### AGRICULTURAL REFINANCE CORPORATION

Garment House, 4th Floor, Dr. Annie Besant Read, Post Box No. 6552, Worli, Bombay-18 WB.

Objects: The Agricultural Refinance Corporation is primarily a refinancing agency and its object is to provide financial accommodation of a medium-term or long-term nature to the various special schemes of agricultural development which cannot be satisfactorily financed by the existing credit agencies either on account of the volume of funds involved or the terms and conditions of repayment or because the projects as such cannot be brought within the normal rules of business under which the land mortgage banks and State Co-operative banks are functioning.

#### CEMENT CORPORATION OF INDIA LTD.

(A Govt. of India Undertaking under the Ministry of Industrial Development, Internal Trade, and Company Affairs)

> 'Herald House', 5-A, Bahadur Shah Zaffar Marg, New Delhi-1.

It is setting up cement plants in the public sector in various parts of the country. The plant of 600 tonnes per day capacity at Mandhar (M.P.) was expected to come into production by December, 1969. Another plant of same capacity now under construction at Kurkunta (Mysore State) is expected to come into production by end of 1970. Preliminary work for setting up a cement plant at Bokajan (Assam) has recently been taken in hand.

## CENTRAL ROAD TRANSPORT CORPORATION LIMITED

4, Fairlie Place, Calcutta 1.

Main Function: To supplement the road transport capacity in the eastern sector of the country. The Corporation has a fleet of about 280 Leyland and TMB trucks. Besides, 171 gift trucks received by the Corporation through the Govt. of India are being utilised for movement of foodgrains in Gujarat and Maharashtra. The trucks of the Corporation are at present plying in West Bengal, Assam, Orissa and Bihar.

### CENTRAL WAREHOUSING CORPORATION

(A Govt. of India Undertaking)

C-90, New Delhi South Extension Part II, New Delhi-49.

The main aims and objects of the warehousing scheme are:-

(i) To help storage of agricultural produce and other commodities as are declared to be "Notified Commodities" by the Central Government under Entry 33 of the concurrent list of the Seventh Schedule of the Constitution by notification in the Government Gazette, on modern scientific lines so as to avoid loss due to dampness, pests, etc.; (ii) To assist the depositors to secure cheap credit, avoid distress selling and sell his produce as and when the market is favourable to him, (iii) to undertake disinfestation service outside its warehouses and also (iv) to act as storage agent on behalf of the Government, Government Companies or a body corporate.

By the end of March, 1969 the total built up capacity owned by the Corporation was 6,56,700 tonnes including a cold storage of 600 tonnes capacity.

State Corporations:—The State Governments have with the approval of the Central Warehousing Corporation established a Warehousing Corporation in each State.

The 15 S. W. C. had, by the end of March 1969, set up 591 warehouses, including 98 sub-warehouses and a cold storage with a total storage capacity of 10,01,999 tonnes including owned built up capacity of 2,39,550 tonnes.

Profit (1968-69): Rs. 64-21 lakhs.

#### DEPOSIT INSURANCE CORPORATION

'Vidyut Bhavan', Pathakwadi, Bombay-2.

Main object: To give a measure of protection to depositors, in particular small depositors, from the risk of loss of their deposits in the event of a bank's inability to meet its liability. Every depositor in an insured bank is guaranteed repayment of his deposits upto Rs. 5,000.

The Corporation has a capital of Rs. one erore and Deposit Insurance Fund of Rs. 11 erores.

# EXPORT CREDIT & GUARANTEE CORPORATION LTD.

(A Government of India Concern)

4, Rampart Row, Bombay 1.

Object: To facilitate the growth of India's export trade by providing credit insurance cover to Indian exporters and furnishing guarantees to banks in order to assist Indian exporters to get credit facilities necessary for expanding their export trade.

#### THE FILM FINANCE CORPORATION LTD.

"White House", 91, Walkeshwar Road, Bombay 6.

Object: To provide finance for the production of films of good standard and quality. It has also approved during the year 1967-68, a scheme for financing the purchase of production and projection equipments.

The Corporation has earned a profit of Rs. 0·13 lakh in 1968-69.

The total loans sanctioned for films upto 31st March, 1969 amounted to Rs. 172.90 lakes of which a sum of Rs. 154.65 lakes has been disbursed.

37 films have been released upto 31st March, 1969 and the corporation has recovered Rs. 68·39 lakhs against the total advanced loans of Rs. 154·65 lakhs.

#### THE FOOD CORPORATION OF INDIA

1, Bahadur Shah Zaffar Marg, New Delhi-1.

The Food Corporation of India is the largest single foodgrain trading agency in the country. The Corporation was set up to undertake purchase, storage, movement, distribution and sale of foodgrains and other foodstuffs.

The purchase and sales turnover of the Corporation for 1968-69 were Rs. 660 crores and Rs. 563 crores respectively.

The Corporation has set up an administrative and operational network of three zonal offices, 14, regional offices, 124 district offices, over 6,000 depots spread over in various parts of the country.

The Corporation had a working capital of Rs. 36 crores, as on March 31, 1969.

Four modern rice mills each with a 4-tonne per hour capacity, have been commissioned at Thanjavur, Mannargudi, Sembanarkoil and Karnal. Thirty mechanical dryers with 160 tonnes per day capacity were set up in Thanjavur in 1967. A maize dryer has also been set up at Khanna with a drying capacity of five tonnes per hour. The Government has approved a scheme for manufacture of 14,000 tonnes of Balahar during the period from October 10 to March 31, 1970 and its free distribution among school children through mid-day meal programme by CARE.

The Corporation is responsible for handling all imported foodgrains and fertilizers at various major and minor ports in the country. The following quantities of wheat, rice and fetiliser were handled during 1968–69. Wheat 98 lakh tonnes; rice 30 lakh tonnes and fertiliser 46 lakh tonnes.

The total storage capacity, owned and hired, by the Corporation at the end of 1969 was 5.6 million tonnes. The Corporation has a programme for construction of 2.5 million tonnes capacity during the Fourth Five Year Plan.

# THE HANDICRAFTS & HANDLOOMS EXPORTS CORPORATION OF INDIA LIMITED

Lok Kalyan Bhavan,

11A, Rouse Avenue Lane, New Delhi 1.

The Corporation undertakes direct export of handicrafts and handloom goods, with the main object of introducing new items and exploring new markets.

The Corporation has sample offices-cum-retail shops in New Delhi, New York, Boston, Paris and Nairobi. It has a carpets warehouse in Hamburg. It has offices in Madras, Bombay and Calcutta.

## THE INDIAN MOTION PICTURES EXPORT CORPORATION LTD.

(Registered Office)

5th Floor, 'D' Shiv Sagar Estate, Dr. A. B. Road, Worli, Bombay 18.

The Corporation, a subsidiary of the State Trading Corporation, is primarily intended as a trading body. It also performs the functions of the Export Promotion Organisation in the interest of increasing the export of Indian films to the traditional markets and exploration of new markets for Indian films. Furthermore, the Corporation has been empowered to execute agreements with foreign organisations for the import or export of films.

## INDIA TOURISM DEVELOPMENT CORPORATION LTD.

(A Government of India Undertaking) Jeevan Vihar, 3, Parliament Street, New Delhi-1.

The objects of the Corporation are construction and management of Hotels, Motels, Restaurants, Traveller's Lodges, provision of transport facilities, entertainment facilities by way of Sound & Light Shows, production and sale of tourist publicity literature and provision of shopping facilities to tourists. It has taken in hand the construction of a modern hotel at Bangalore. Plans for construction of hotels at Calcutta, Srinagar, Kovalam are under consideration. It runs Travel Lodges at various places of tourist interest in the country. Tourist literature of high standards like guide books, diaries etc. have been produced. Its Duty Free Shops at Delhi, Calcutta, Bombay and Madras Airports sell a wide range of imported merchandise and selected indigenous handicrafts to the tourists against payment of foreign currency. Its transport units are at Delhi, Patna, Jaipur, Udaipur, Srinagar and Madras and it hires out the vehicles for sight-seeing local tours or for package tours to places of tourist attraction.

# THE INDUSTRIAL CREDIT & INVESTMENT CORPORATION OF INDIA LTD.

163, Backbay Reclamation, Bombay 1.

Object: To assist industrial enterprises in the private sector by providing finance in both rupee and foreign currencies in the form of long or medium term loans or equity participations, sponsoring and under-writing new issues of shares and securities, guaranteeing loans from other private investment sources, furnishing managerial, technical and administrative advice to Indian industry.

Resources: Share Capital — Rs.  $7\cdot50$  crores. Reserves — Rs.  $4\cdot99$  crores. Borrowings: Rupee Currency — Rs.  $49\cdot00$  crores. Foreign Currency — Rs.  $136\cdot89$  crores. Industrial Assistance: Total sanctions upto end 1968 — Rs.  $274\cdot26$  crores.

### INDUSTRIAL DEVELOPMENT BANK OF INDIA

Post Box No. 1241 Reserve Bank Building, Bombay-1.

The Industrial Development Bank of India (IDBI) designed as a developmental agency for planning, promoting and developing industries to fill up gaps in the industrial structure is empowered to finance all types of industrial concerns engaged in the manufacture or processing of goods, mining, transport, generation and distribution of power, etc., both in the public and private sectors.

At present, finaficial assistance is being provided in various forms as under: (1) Direct assistance to industrial concerns in the form of loans; underwriting of and direct subscriptions to shares and debentures of industrial concerns; and guarantees for foreign loans and deferred payments; (2) Direct loans and guarantee facilities for exports of capital and engineering goods and services on deferred payments basis; (3) Refinance of industrial loans granted by State Financial Corporations and banks; (4) Refinance of medium-term export credits granted by banks which are authorised dealers in foreign exchange; (5) Rediscounting of bills/promissory notes arising out of sales of indigenous machinery on deferred payment basis; (6) Rediscounting of promissory notes in respect of sales of motor vehicles to road transport operators in the private sector and (7) Subscriptions to shares and bonds of financial institutions.

Recently, the Bank also announced the broad outlines of a scheme for assisting small and medium-projects emanating from underdeveloped areas on liberal terms.

## THE INDUSTRIAL FINANCE CORPORATION OF INDIA

Head Office: Burmah-Shell House (Annexe II), Connaught Circus, New Delhi. Branches: Bombay, Calcutta and Madras.

I.F.C. supplies medium and long-term capital to public limited companies or co-operative societies incorporated and registered in India. Public sector projects which are public limited companies and have declared at least a maiden dividend may also be considered for assistance for their expansion programmes, provided they do not depend on Govt. for budgetary support. Its activities include:—

(a) Granting of loans or subscribing to debentures in rupee currency; (b) Guaranteeing deferred payments in respect of machinery imported from abroad or purchased in India; (c) Granting of loans in foreign currency; (d) Guaranteeing loans raised from foreign banks or other Financial Institutions in foreign currency; (e) Underwriting of equity, preference or debenture issues; and (f) Subscribing to equity or preference capital.

# MACHINE TOOL CORPORATION OF INDIA LIMITED

(A Govt. of India Undertaking) Beawar Road, Ajmer.

Under this project, a total of 680 Grinding Machines like Universal Tool Grinders, Vertical Surface Grinders, Rotary Stationary Tables, Surface Grinders, Centreless Grinders, Crankshaft Grinders, Internal Grinders, Vertical Honing Machines and Cutter-head Grinding Machines as well as a large variety of special accessories are expected to be manufactured every year. This Company's plant will provide employment to approximately 1,700 persons and will also give plenty of scope for the development of ancillary industries in and around Ajmer.

# THE MINERALS & METALS TRADING CORPORATION OF INDIA LTD.

Express Bldg., 9 & 10, Bahadur Shah Zaffar Marg, New Delhi-1.

The Corporation undertakes export of minerals and ores and import of Steel and industrial raw materials; it also does internal trade by way of arranging supplies of iron and manganese ores to the Hindustan Steel Ltd.

# NATIONAL BUILDINGS CONSTRUCTION CORPORATION LIMITED

44, Ring Road, Lajpat Nagar III, New Delhi-24.

(Under the Ministry of Health & Family Planning and Works, Housing and Urban Development). Objects: (a) to improve the quality of construction works; (b) to bring down construction costs; (c) to take up construction work in border areas and inaccessible places where private contractors quote fancy rates; and (d) to take on the responsibility for supervising the works in such a way that the clients reduce their supervisory engineering personnel so as to bring down the ultimate construction costs.

The Corporation has set up a mechanised brick plant in Delhi to produce over four crores of bricks per year.

## NATIONAL COAL DEVELOPMENT CORPORATION LTD.

Darbhanga House, Ranchi.

N.C.D.C. operations extend to four states viz. Bihar,

Madhya Pradesh, Orissa and Maharashtra.

The most important of N.C.D.C. activities has been the opening of deep shaft mines for producing coking coal in the Central Jharia coalfields (Dhanbad, Bihar) with Polish collaboration. N.C.D.C. expects to produce about 30 million tonnes of coal, including 9.5 million tonnes of coking coal by the end of the Fourth Plan. N.C.D.C. has at present one coal washery in operation at Kargali and three under construction—the one at Gidi with Polish collaboration, the other at Sawang and the third at Kathara with Soviet collaboration. Of these, the Kathara washery, having an annual capacity of three million tonnes of raw coal, is the largest which was expected to go into production by December 1969.

# NATIONAL CO-OPERATIVE DEVELOPMENT CORPORATION

C 56, South Extn. II, New Delhi-16.

Functions: To plan and promote programmes for the production, processing, marketing, storage, export and import of agricultural produce and notified commodities through cooperative societies. In this connection, the Corporation is specifically empowered to undertake the following activities:—

- (a) to advance loans or grant subsidies to State Governments for financing cooperative societies and for employment of staff for implementing programmes of cooperative development;
- (b) to provide funds to State Governments for financing cooperative societies for the purchase of agricultural produce and notified commodities on behalf of the Central Government; and
- (c) to plan and promote programmes, through cooperative societies for the supply of seeds, manures, fertilisers, agricultural implements and other articles for the development of agricultural produce.

# THE NATIONAL INDUSTRIAL DEVELOPMENT CORPORATION LTD.

P.O. Box No. 458, Chanakya Bhavan, Vinay Marg, New Delhi 11.

Main functions of the Corporation are to render Consultancy Engineering Services by way of detailed design and engineering of complete projects and preparation of detailed project reports. Its assignments include preparation of project reports, techno-economic feasibility studies and demand surveys. The services of the Corporation are being made use of by the Central Government, various State Governments, public sector enterprises and private entrepreneurs in India. Its services have also been availed of by the United Nations, foreign governments and entrepreneurs abroad. The Corporation has also been acting as the Agency of the Government for grant of loans to cotton textiles and jute industries for modernisation and rehabilitation.

#### NATIONAL MINERAL DEVELOPMENT CORPORATION LIMITED

61, Ring Road, Lajpat Nagar III, New Delhi-14.

Administrative Ministry: Ministry of Petroleum & Chemicals and Mines & Metals.

Functions: To exploit minerals in the public sector, excluding copper, coal, lignite, oil and natural gas, and for this purpose, the Corporation may purchase, take on lease or otherwise acquire mines for prospecting and developing, and work them for producing minerals.

The following projects have so far been assigned to the Corporation:

(i) Kiriburu Iron Ore Project, Kiriburu (Bihar); (ii) Diamond Mining Project, Panna (Madhya Pradesh); (iii) Iron Ore Project, Bailadila Deposit No. 14 (Madhya Pradesh); (iv) Iron Ore Projects, Bailadila Deposit No. 5 (Madhya Pradesh); (v) Feasibility studies on rock phosphate in Mussoorie (Uttar Pradesh); Diamonds in Andhra Pradesh, iron ore at Kundermuk in Mysore State; Emeralds in Rajasthan and bauxite in Mysore State and Goa.

# NATIONAL PROJECTS CONSTRUCTION CORPORATION LTD.

E9, Defence Colony, New Delhi 3.

(Under the Union Ministry of Irrigation & Power)

Main object: To provide the Central and State Governments with an organisation capable of undertaking the execution of River Valley Projects and allied Civil Engineering works requiring high technical skill, strict adherence to specifications and quality standards.

### NATIONAL RESEARCH DEVELOPMENT CORPORATION OF INDIA

Mandi House, Lytton Road, New Delhi 1.

Main function: To stimulate development and commercial exploitation of patents and inventions arising from national research efforts and where feasible, in the public interest, of patented inventions from individuals also.

The Corporation's another major activity is development of scientific research by arranging pilot plant and instituting developmental projects. Till now, the Corporation has instituted 21 projects at a cost of about Rs. 62.53 lakhs.

### NATIONAL SEEDS CORPORATION LIMITED

F44-A, South Extension Part I, Ring Road, New Delhi-49.

Under the Ministry of Food, Agriculture, Community Development and Co-operation (Department of Agriculture).

National Seeds Corporation is responsible for organising a sound seed industry in India; concentrates on production of foundation seed of promising varieties evolved by research, and helping progressive farmers, State Agriculture Departments, Cooperatives, Seed Production Agency etc. in production of high quality seed of the varieties recommended for release by the Central Varieties Release Committee; helps in setting up processing plants, provides extension and educational services; organises quality control in seed production business and arranges training in all aspects of seed production for the benefit of seed producers, representatives of State Agriculture Departments and others engaged in seed production. At present, N.S.C. handles seed production of hybrids of maize, Sorghum (jowar) and Bajra, latest varieties of

wheat and paddy, selected varieties of vegetables, fodder erops, jute etc. N.S.C. has organised distribution channels for supply of N.S.C. seed to largest sections of Indian farming community through its distributors, agencies and its own units.

# THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.

Near Industrial Estate, Okhla, New Delhi 20.

Main objects: To assist, counsel, finance and promote the interest of small industries in the country.

The activities of the Corporation fall under two broad categories viz. (a) Promotional or developmental and (b) Commercial. The promotional activities include operation of Government Purchase Scheme, under which the Corporation maintains liaison with DGS & D, Railways, and Posts and Telegraph Department in order to assist small scale industries in procuring Government contracts; management of the Naini Industrial Estate and the administration of the Prototype Production & Training Centres at Okhla, Rajkot and Howrah. The Commercial activities relate to supply of machines on hire purchase basis and marketing operations.

### NATIONAL TEXTILE CORPORATION LIMITED

(A Government of India Undertaking) Udyog Bhavan, New Delhi

Main object: To manage textile mills which may be taken over under the Cotton Textile Companies (Management of Undertakings and Liquidation or Reconstruction) Act, 1967 and also, in due course, to set up new textile mills in the public sector.

## REHABILITATION INDUSTRIES CORPORATION LIMITED

(A Govt. of India Undertaking). 25, Free School Street, Calcutta 16.

Principal object: To create employment opportunities through industries for the large number of unemployed and partially employed displaced persons from East Pakistan as well as to promote or advance the setting up of industries to provide employment to the migrants from West Pakistan (who have entered Indian territory as a result of the recent conflict with Pakistan), repatriates from Burma & Ceylon and persons of Indian origin migrated from other countries with the intention of permanently settling in India.

# RURAL ELECTRIFICATION CORPORATION PRIVATE LIMITED

 Parliament Street, Jeevan Vihar, New Delhi 1 (Ministry of Irrigation & Power)

The main objects for which the Company is established are:—(i) To finance rural electrification schemes in the country; (ii) To subscribe to special rural electrification bonds that may be issued by the State Electricity Boards on conditions to be stipulated from time to time; (iii) To promote and finance rural electric co-operatives in the country; (iv) To administer the moneys received from time to time from the Government of India and other sources as grants or otherwise for the purposes of financing rural electrification in the country in general.

### THE STATE FARMS CORPORATION OF INDIA LTD.

(A Government of India Undertaking)
A-21, West End Colony, Rao Tula Ram Marg,

New Delhi-23.

The Corporation was set up in May, 1969, to take over the administration of Central and State Farms set up primarily for the production of seeds of foodgrains, fibre crops, plantation crops, oil seeds, vegetables, fruits etc. The Corporation took over the Central State Farms at Suratgarh and Jetsar (Rajasthan), Jharsuguda (Orissa), Jullundur (Punjab), Hissar (Haryana), and Raichur (Mysore) from 1-8-1969. The Corporation intends to set up the seventh Farm in the Canannore Distt. of Kerala.

Apart from the production of quality seeds particularly of high yielding varieties of wheat, paddy, Maize, Bajra and Jowar, the Farms also render the following services:—

- (i) Custom service to private farmers for land levelling, land shaping and soil conservation work on their lands,
- (ii) Repair and servicing of private tractors at the farm workshops,
- (iii) Consultancy service for the benefit of individuals, farms and institutions wanting advice on mechanisation of farms.

The Corporation has an authorised capital of Rs. 7 crores.

The area under operation and ultimate total area in acres are as follows: Suratgarh 30,331; 30,331; Jetsar 11,551; 22,162; Hirakud 6,835; 10,000; Jullundur (—); 10,000; Raichur 2,698; 7,500; Hissar 4,703; 8,000.

### THE STATE TRADING CORPORATION OF INDIA LTD.

Express Bldg., 9 & 10, Bahadur Shah Zaffar Marg, P. B. No. 79, New Delhi 1.

The central aim of the Corporation is to broaden and enlarge the scope of Indian exports and to arrange for essential imports on an economical basis.

The Corporation's export increased by more than 100% from Rs. 23.6 crores to Rs. 48.5 crores in 1968-69. As a result, the total trade also increased from Rs. 141.2 crores to Rs. 167.2 crores and the net profit from Rs. 2.3 crores to Rs. 4 crores in the year. At present S.T.C. has 13 offices abroad.

### THE TANNERY AND FOOTWEAR CORPORATION OF INDIA LTD.

13/400, Civil Lines, Kanpur.

The Corporation has two factories, both at Kanpur. It commenced production in June 1969. It manufactures leather of all types, such as Chrome and Bark leather, Calf, Kid and Chamois leather; Leather products for use in textile industry such as Picking Bands and Picker Savers; Ankle Boots for the Armed forces and Police, Minors' Safety Boots, civilian footwear which is marked under the brand name 'FLEX', footwear for export, Mountaineering Boots, Skiing and Skating Boots; a large variety of leather goods including Gloves, Suit Cases, Brief cases, Hand Bags, etc; Leather Board, Rubber components for shoes such as Soles and Heels: Shoe Finishes and adhesives such as Polish lacquor, Flexobond Cement and Myrobolam Extract Powder for tanning and water purification.

The Corporation has the capacity to manufacture about two million pairs of footwear per shift per annum and has a net work of distributors and retail dealers all over India for the sale of its products.

#### UNIT TRUST OF INDIA

Head Office: Bombay Life Building, 45, Veer Nariman Road, Bombay-1.

Basic objective: To afford the small investor a means of acquiring a share in the widening prosperity based on

steady industrial growth of the country which combines the advantages of minimum risk and a reasonable return.

A Unit Trust pools the savings of the community and invests them in securities of various types. To pool the savings, the Trust sells 'units'. All units rank equal for the distribution of income, regardless of when they are acquired. The Trust offers one other important and unique advantage: it is always ready both to sell and buy its units at prices published by it. A Unit holder is thus assured complete liquidity for his investment.

Some Salient Features: Besides the Trust's offices at Bombay, Calcutta, Delhi and Madras, units are on sale at all the branches of the numerous leading banks which have contributed to the initial capital of the Trust and at over 15,000 post offices throughout the country. Units can also be obtained through 286 'approved' brokers on the recognised stock exchanges and 1,775 individual agents appointed so far, by the Trust.

During the five years i.e. from July 1, 1964 to June 30, 1969, sales of units aggregated Rs. 63·02 crores. Allowing for repurchases, units sold and outstanding as at the end of June 1969, amounted to over Rs. 56 crores, the number of unit holders being 2,69,181.

The Trust has paid dividend for the year ended June 1969 at the rate of  $7\cdot1\%$  per annum as against 7% paid for each of the preceding three years.

The Trust is exempt from payment of income-tax and other taxes on income.

Income upto Rs. 1,000 from the Unit Trust received by an individual unit holder is free from income tax irrespective of the amount of his other income. That is, income upto Rs. 1,000 from units is not included in the computation of the total income for purposes of income tax.

Units can be sold back to the Unit Trust of India any time. The sale and repurchase prices of units are determined in accordance with the provisions laid down in the Unit Scheme and are announced daily.

Transfer of units to third parties is possible. A unit holder can also transfer units in favour of a bank for purposes of borrowing.

The Trust has introduced Voluntary Savings Plan 1969 from 1st July 1969. This provides a facility whereby a person of even relatively small means can regularly invest in units.

### URANIUM CORPORATION OF INDIA LIMITED

P.O. Jaduguda Mines, Dist. Singhbhum, Bihar.

It is a wholly-owned Government of India enterprise under the Department of Atomic Energy. Its objectives are to provide the Uranium requirements for the Atomic Energy Programme of the country. The Corporation is to mine and process Uranium Ore and other ores and minerals containing Uranium in any form.

### STATE CORPORATIONS

# ANDHRA PRADESH INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

B-1-174, Fateh Maiden Road, Hyderabad-4 (Andhra Pradesh) (A State Government Undertaking)

Main functions: (a) Provide financial assistance; (b) Underwrite new issues of shares and securities; (c) Participate in the share capital of new industrial projects with or without controlling interest; (d) Promote industries directly in collaboration with private entrepreneurs.

# THE ANDHRA PRADESH MINING CORPORATION LTD.

Fateh Maidan Road, Hyderabad-4.

Objects: Prospecting and exploitation of some of the important minerals in the State. Setting up of mineral based industries with the collaboration of private sector wherever desirable and possible.

## THE ANDHRA PRADESH STATE AGRO-INDUSTRIES CORPORATION LIMITED

Intekhab Manzil, 10-2-3, A.C. Guards Hyderabad 4.

Achievements of the Corporation: During the year 1968-69, the Corporation has acquired 105 crawler tractors. In addition 30 numbers of TL 30 A, Bolgar crawler tractors and 39 S650 crawler tractors from Rumania are scheduled to be delivered. The Corporation has established 5 custom service centres for Agriculture machinery. The Corporation has of its own 22 Percussion Drills, 5 Direct Rotary Drills and 19 Down the Hole Hammer Drills. Licences for the import of 200 Tillomatic power tillers is under consideration. Import licence for the import of 1,000 tyres and tubes for tractors has been received. Arrangements have been made for the distribution of oil engines and pump

sets on hire purchase to owners of wells and to train agriculturists in the use of tractors.

# ANDHRA PRADESH STATE FINANCIAL CORPORATION

5-9-194, Chirag Ali Lane, Hyderabad-1.

Objects: Financial assistance to all medium and small scale industries, hotel industry (Tourist hotels only), transport industry (road transport of goods) established within the State.

### THE ASSAM FINANCIAL CORPORATION

('Glenerquart,' Shillong)

Aims and Objects: To contribute to the industrialisation of the States of Assam, Tripura and Manipur by providing credit, medium and long term to industrial

# ASSAM GOVT. CONSTRUCTION CORPORATION LTD.

Shillong (Assam)

Objects: To construct, execute, carry out, improve, work, develop, administer, manage or control in Assam and elsewhere works of all kinds and to do other business.

### BIHAR STATE AGRO-INDUSTRIES DEVELOPMENT CORPORATION LIMITED

Nageshwar Colony, Boring Road, Patna.

To promote, develop, establish, execute, operate and otherwise carry out projects, schemes, industries, business and activities which in the opinion of the Company is likely to—

accelerate and increase agricultural production; contribute to the production of subsidiary and supplementary food;

increase availability of supplies of food whether principal, ancillary, supplementary or substitute, in particular in the State of Bihar; contribute to the agroindustrial development of Bihar.

The Corporation has distributed the following equipment during the period July-December 1969. Tractors: 651, Pumping Sets: 1037.

Cluster type Institutional Training Centres: During the year 1968-69, 549 persons have been trained so far out of which 259 persons have been settled in their own trade. Besides this, goods worth Rs. 2·82 lakhs have been produced and goods worth Rs. 1·755 lakhs sold.

### BIHAR STATE FINANCIAL CORPORATION Fraser Road, Patna.

# BIHAR STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.

Punaichak, Patna 1.

Objects: Setting up, owning and operating on behalf of the Government, industrial undertakings in the medium and large-scale industries sectors. The Company has at present two factories under operation:—(i) Bihar State Superphosphate Factory at Sindri, which produces superphosphate and sulphuric acid; and (ii) High Tension Insulator Factory at Ranchi, which produces high Tension and low tension electric insulators.

During July to December 1969 production of Superphosphate in the Superphosphate factory was 7,589·55 m tonnes valued at Rs. 23·07 lakhs. Besides, 3235·35 m tonnes of Sulphuric acid worth Rs. 9·45 lakhs was also produced. During the said period the production of insulators in the High Tension Insulator factory was 865·30 m tonnes worth Rs. 16·66 lakhs.

Beside the above two factories, an Electrical Equipment factory at an estimated cost of about Rs. 2·24 crores is under construction at Tantisilwai (Ranchi). This factory is expected to go into production by the end of 1970.

# THE BIHAR STATE SMALL INDUSTRIES CORPORATION LTD.

B.C.I. Building, East Gandhi Maidan, Patna 4.

Activities: Regular manufacturing of small industries products like bicycles, auto-batteries, locks, agricultural implements, wooden furniture, hosiery goods, roofing tiles, potteries, mechanical toys, leather and leather goods, aluminium utensils, cottage industries and handicrafts products and their marketing.

### GUJARAT EXPORT CORPORATION LIMITED

First Floor, Industry House, Ranchhodlal Marg, G. P. O. 290, Ahmedabad 9.

Objects: For facilitating, promoting and expanding the export trade. It undertakes direct exports including marketing, execution of orders, shipping, foreign exchange matters etc. It also promotes export trade by helping the manufacturers. It promotes the export trade of the products manufactured/produced/processed in the State of Gujarat.

It also provides assistance in connection with finance, raw materials, railway freight, etc. for the export trade.

It acts as an important link between the exporters and the Government, whether Central or State.

### GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

Fadia Chambers, Ashram Road, Navrangpura, Ahmedabad-9.

Functions: (1) generally to promote and assist in the rapid and orderly establishment, growth and development of industries, (2) to establish and manage industrial estates at places selected by the State Government, (3) develop industrial areas selected by the State Government, and (4) develop land on its own account or for the State Government, for the purpose of facilitating the location of industries thereon.

### GUJARAT INDUSTRIAL INVESTMENT CORPORA-TION LIMITED

Natraj Chambers, Ashram Road, Ahmedabad 9.

Functions: Promoting industrial development and investment in Gujarat; providing capital participation in companies, sponsoring and underwriting new issues of shares and debentures etc.; giving long and medium term loans for fixed capital for industry; capital participation with commercial banks; promotion of special schemes for technicians; promoting investment for cinema industry, hotel industry, civil construction industry etc.

The Corporation also publishes Project Reports on various industries having potential in Gujarat.

### GUJARAT MINERAL DEVELOPMENT CORPORATION LIMITED

5th Floor, Natraj Theatre Building, Ashram Road, Navrangpura, Ahmedabad-9.

Aims and Objects: To undertake mining and development of minerals in the State of Gujarat.

The Corporation has undertaken the working of the Silica-sand Project at Chotila Taluka of Surendranagar Dist. for mining of Silica-stone and Fluospar Mining and Beneficiation Project at Kadipani in Chhota-Udepur Taluka of Baroda District. The Fluospar Beneficiation Project is expected to commence production during the year 1970.

The Corporation also proposes to undertake Alumina and Lignite projects.

## GUJARAT SMALL INDUSTRIES CORPORATION LTD.

Ambica Nivas, Ashram Road, Navrangpura, Ahmedabad 9.

# THE GUJARAT STATE FINANCIAL CORPORATION

Jaldarshan Building, P.O. Box 262, Ahmedabad.

Object: Financial assistance to small, medium and large scale industries and underwriting of shares of industrial units in Gujarat, guaranteeing deferred payment on machineries acquired in India and subscribing the debentures of industrial concerns.

The Corporation besides giving loans to manufacturing industries, provides loans to cold storages, transport industry, hotel industry, printing press, mining industry and also to industrial estates.

### HARYANA AGRO-INDUSTRIES CORPORATION LTD.

Khoti No. 8, Sector 9-A, Chandigarh.

Haryana Agro-Industries Corporation is a joint venture of the Government of India and the State Government with 50:50 share capital participation.

0

Objects: 1. To undertake, assist, aid, finance & promote Agro-Industries such as poultry, dairying, land development, seed production, manufacture of agricultural implements & machinery. 2. To organise setting up of workshops; 3. To promote or conduct any agricultural, commercial enterprises.

The Corporation has set up a large workshop at Nilokheri and has taken up assembly of tractors, fabrication of agricultural machinery & Tractor implements besides after-sale service-cum-repairs and hiring of tractors and agricultural machinery. This workshop also provides all agricultural inputs to the farmers. The Corporation also deals with production and sale of poultry/cattle feed and has set up four processing and sale centres.

### HARYANA FINANCIAL CORPORATION

8-9, Sector 17A, (Opp. L.I.C. Buildings) Chandigarh.

This Corporation has been set up to cater to the financial requirements of small and medium scale industries located in the State of Haryana.

# THE HARYANA STATE SMALL INDUSTRIES & EXPORT CORPORATION LIMITED

1st Floor, P. N. Bank Building, Bank Square, Sector 17-B, Chandigarh.

Objects: To help the small scale industry of Haryana to develop. Its functions are to procure, store and distribute raw materials both scare and non-scare, to supply machinery on hire purchase and to help small scale industry of the State, in several other ways. Besides it also exports the products of large, medium and small scale industries.

## JAMMU & KASHMIR STATE FINANCIAL CORPORATION

P.W.D. Buildings, Residency Road, Srinagar.

Aims and objects: To stimulate the establishment of small and medium scale industries and expansion and modernisation of existing industries by providing financial assistance on medium and long term basis. Loans are also granted to hotel, houseboat and transport industries.

## HANDICRAFTS DEVELOPMENT CORPORATION OF KERALA PRIVATE LTD.

"Girija Bhavan" Thycaud (P. O.) Trivandrum 14.

Main Objects: (1) To develop and promote handicrafts within the State of Kerala. (2) To provide financial, technical marketing, development or any other assistance and guidance to any establishment, undertaking or enterprise of any description whatsoever, which is likely to facilitate or accelerate the development of handicrafts in the State of Kerala. (3) To promote, establish and operate Sales Offices, such as Emporia, Show room, Publicity Offices, Stalls and Centres with the object of improving the marketability of Kerala handicrafts anywhere within and outside India.

#### KERALA FINANCIAL CORPORATION

K.F.C. Buildings, Vellayambalam, Trivandrum-1.

The Corporation was started with the object of providing financial assistance in one form or other to industrial concerns established or to be established in order to quicken long term credit to industrial concerns in Kerala State in need of financial assistance and the pace of industrialisation of the State.

## KERALA STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.

Vellayambalam, Trivandrum-1.

Joint Stock Companies registered in India and Cooperative Societies which are engaged or have for their objects the establishment and operation of industries and have a share capital of not less than Rs. 5 lakhs are eligible to receive assistance from the Corporation.

The assistance will be given to large-scale and medium sized industries. It will normally entertain applications for loans from industrial concerns only if the amount involved exceeds Rs. 10 lakhs in the case of Private Limited Companies and Rs. 20 lakhs in the case of Public Limited Companies.

# THE KERALA STATE CASHEW DEVELOPMENT CORPORATION LIMITED

Post Box No. 13 - Quilon.

Object: To develop the Cashew industry in the State.

Activities: Import of raw cashewnuts, collection of indigenous cashewnuts, processing of cashews, export of cashew kernels, development of cashew plantations by extending its areas and intensifying the cultivation methods, manufacture of cashew by-products.

### KERALA STATE SMALL INDUSTRIES CORPORATION LIMITED

Barton Hill Jn., Trivandrum-1.

Main activities: Stocking and distributing important and scarce raw material sheets (BP, GC, & CP), pig iron etc. Construction and management of industrial estates; Managing service-workshops viz. Engineering Service Workshop, Wood Workshops and Ceramic Service Centre, Running various production centres, manufacturing Teodolites, precision instruments, waterproof cloth goods, tiles, bricks, strawboards, small machine tools, dies and tools, Optical items (Laboratory), wooden furniture, die cast components etc.; Supply of machinery on hire purchase basis.

# THE PLANTATION CORPORATION OF KERALA LIMITED.

P. B. No. 12, Kottayam-6, Kerala State.

Area under rubber: 16,521 acres. Area under yielding: 5,000 acres. The Corporation manufactures all grades of sheet, crepe and concentrated latex.

# MADHYA PRADESH FINANCIAL CORPORATION

(Shiv Vilas Palace, Indore City).

Renders financial assistance, both medium-term and long-term, to industrial units in private and co-operative sectors. The term of loan from the Corporation may be upto 20 years, but it is decided in each case keeping in view the requirement of the unit.

Maximum amount which can be sanctioned as assistance to one unit is Rs. 20 lakhs in the case of public limited companies and Rs. 10 lakhs in the case of others. The current rate of interest is 9 per cent and a rebate of  $\frac{1}{2}$  per cent is allowed for punctual payment of interest and principal. Concessional rate of interest offered for loans to S.S.I. units covered under guarantee scheme and Refinance.

# THE MADHYA PRADESH STATE INDUSTRIES CORPORATION LTD.

Maheshwari Bhavan, Civil Lines, Bhopal-2.

Object: To run the Government of Madhya Pradesh medium industries and to start new medium industries under State Sector.

<sup>.</sup> Now called Tamil Nadu.

### THE M.P. STATE MINING CORPORATION LTD.

Fourth Bridge Road, Napier Town, Jabalpur.

Main objects: To search for major and minor minerals and to mine and work them and to trade in minerals. The Corporation has included in its programme prospecting and mining of limestone and dolomite, bauxite, glass sand, ochres, fireclays, coal and building sand and stone.

### THE MAHARASHTRA AGRO-INDUSTRIES DEVELOPMENT CORPORATION LIMITED

Registered Office: "Nirmal", 12th Floor, 'A' wing, Madam Cama Road, Nariman Point, Bombay 20.

Objects: To undertake the manufacture and distribution of agricultural commodities required for modern agriculture including animal husbandry and poultry, such as fertilisers, balanced cattle and poultry feeds and to distribute farm implements machinery, iron and steel and help in the process of modernisation of agriculture.

### MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of Maharashtra Undertaking)
Marol Industrial Area, Mahakali Caves Road,
Andheri (East), Mulgaon, Andheri, Bombay 69.

The functions of the Corporation are :-

to promote and assist in the rapid and orderly establishment, growth and development of industries; to establish and manage industrial estates; to develop industrial areas selected by the State Government; and to assist, financially, industries by loans to move their factories to industrial estates or areas.

The Corporation has set up a separate division called the Maharashtra Investment Centre, which has its office on the 5th floor, Orient House, Mangalore Street, Ballard Estate, Bombay 1. The Centres gives imformation to prospective entrepreneurs about the facilities offered by the Corporation and other organisations dealing with the promotional aspect of the industrial development in the State.

## MAHARASHTRA SMALL SCALE INDUSTRIES DEVELOPMENT CORPORATION LTD.

(A Govt. of Maharashtra Undertaking) Bombay Life Building, 5th Floor, 45, Veer Nariman Road, Fort, Bombay 1.

Objects: (a) To aid, assist, finance and promote the interests of small industries in Maharashtra; (b) to promote and operate schemes for development of small industries in the State of Maharashtra and (c) to procure capital or financial assistance or accommodation for, or provide machinery, equipment, technical and managerial assistance to small industries.

Present Activities:—(a) Procurement of basic raw materials and arranging for their equitable distribution; (b) supply of machinery and equipment (particularly of indigenous origin) to the small-scale industries on easy instalment basis; (c) helping the small-scale industries in marketing their products; (d) supplying ancillary jobs to small-scale units; (e) helping the small-scale units for the export of their products; (f) providing to small-scale units assistance for the marketing of consumer products; (g) securing financial assistance to small-scale units from Commercial banks and (h) rendering technical advice to small scale units through 'Forum of Industrial Technologist' formulated under the auspices of the Corporation.

### THE MAHARASHTRA STATE FARMING CORPORATION LTD.

Sachivalaya Annexe, Bombay-32. A Government of Maharashtra Undertaking.

Object: Cultivation and management of the surplus lands of the Joint Stock Sugar Companies in Maharashtra vesting in the Government under the provisions of the Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961.

# MAHARASHTRA STATE FINANCIAL CORPORATION

United India Building, 1st Floor, Sir Pherozeshah Mehta Road, Bombay 1.

Branch Offices: National Indian Building, Mount Road Extension, Nagpur; Mohan Talkies, Sarafa, Aurangabad; Govind Krupa, Station Road, Miraj; 7-8, Susheela, 18th June Road, Panaji, Goa; Alankar Theatre Building, 1st Floor, Near Poona Rly. Station, Poona; Jilla Peth, Opp: Athawade Bazar, Near Marwari Press, Jalgaon; 266, Bazargate Street, Fort, Bombay 1.

The main object of the Corporation is to provide financial assistance to medium and small scale industrial concerns in Maharashtra State and in the Union Territory of Goa, Daman and Diu for purchase of land, plant and machinery, construction of building, for renovation and expansion of existing units.

During 1968-69the Corporation sanctioned loans amounting to Rs. 431 lakhs and distributed Rs. 300 lakhs. The total loan assistance given by the Corporation since inception upto March 1969 was Rs. 2,189 lakhs.

# MAHARASHTRA STATE WAREHOUSING CORPORATION

18, Bombay Road, Poona-3.

The Corporation has established warehouses at 40 centres spread all over the Maharashtra State. The maximum custom during the year 1968-69 was 6,62,000 bags of agricultural produce. Against warehouse receipts issued by the Corporation, the depositors can secure advances by pledging the same with scheduled banks, State Bank of India and Dist. Central Cooperative Banks.

## THE STATE INDUSTRIAL AND INVESTMENT CORPORATION OF MAHARASHTRA LIMITED

5th Floor, Mistry Bhavan, Dinska Wachha Road, Bombay-20.

(A Government of Maharashtra Undertaking).

Objects: To promote development of industries in the under-developed areas of Maharashtra State by assisting industries in the private sector by underwriting support/equity participation in the capital issues, by grant of long-term loans and in the joint sector by promoting new industrial projects.

### THE MYSORE SMALL INDUSTRIES CORPORATION LIMITED

Administrative Office Building, Industrial Estate, Rajaji Nagar, Bangalore 10.

The Corporation is set up to assist, finance and generally to promote the interests of the small scale industrialists in the State.

Activities: Construction, maintenance and management of industrial estates; procurement and sale of scarce and controlled raw materials; supply of machinery on hire purchase; rendering of marketing assistance; organising exhibition and display of products of small-scale industries; dissemination of information.

### MYSORE STATE FINANCIAL CORPORATION

First Main Road, Gandhigar, Bangalore 9.

### MYSORE STATE HANDICRAFTS DEVELOPMENT CORPORATION LTD.

1, Church Street, Bangalore 1.

The Corporation has been running Handicrafts Emporia under the "KAVERI" Mysore State Arts and Crafts Emporia at Bangalore, Mysore, Mangalore, Belgaum, Hubli, Davanagere, and Gulbarga in Mysore State and Delhi and Bombay.

The Corporation has started Production Centres for high quality Sandalwood Carving, Bronze Production and Common Facility Centre for Wood Carving. Financial assistance and design assistance are provided to artisans. The Corporation has also undertaken export of handicrafts.

## MYSORE STATE INDUSTRIAL INVESTMENT AND DEVELOPMENT CORPORATION LTD.

"Hari Nivas", 36, Cunnigham Road, Bangalore 1-B.

Aims and Objectives of the Corporation: The main objectives of this Corporation, among others, are to promote, improve, establish and execute industries and industrial projects; to aid, make advances, assist and finance industrial undertakings and underwrite the stock, shares etc.

# THE INDUSTRIAL DEVELOPMENT CORPORATION OF ORISSA LTD.

(A Govt. of Orissa Undertaking) Post Box No. 78, Bhubaneswar 1.

The Corporation has six running industries (1) Kalinga Iron Works, Barbil, manufacturers of superior foundry grade pig iron, (2) Hirakud Industrial Works, manufacturers of light and medium structurals and specialised mild steel fabrications, (3) a large-scale modern Tile Factory, Choudwar, manufacturers of roofing and flooring tiles, (4) Portland Cement Factory, Bargarh, (5) Re-rolling Mill, Hirakud, (6) Electrical Cable Factory, Hirakud. The seventh one The Ferro Chrome Project, Cuttack was expected to start production by the end of 1969.

### ORISSA CONSTRUCTION CORPORATION LTD.

(A Govt. of Orissa Undertaking) Post Box No. 82, Bhubaneswar.

The Corporation is engaged in large-scale construction works and has already completed a number of High Level Bridges, Dams, Syphons, Aqueducts, Runway etc. Major works presently at hand include erection of one of the two Ferrochrome Factories of the country, operation of stone quarries and putting up of the power house for a major Hydroelectric Project at Balimela.

## ORISSA STATE FINANCIAL CORPORATION Barabati Stadium, Cuttack 5.

Object: To provide medium and long-term credit to small-scale and medium sized industrial concerns in the State of Orissa, primarily for the purpose of purchase, renovation or expansion of plant and machinery and other fixed assets. Underwriting of shares is also made in suitable cases.

## THE PUNJAB EXPORT CORPORATION LIMITED

1623, Sector T-C, Post Box 20, Chandigarh, Punjab.

Object: To serve as a channel for the outflow of goods from Punjab's medium and small-scale industries to the

export markets. It organises and effects exports from India of all such goods and commodities as are manufactured and produced in Punjab and coordinates the activities of exporters with various export promotion councils. It arranges supply of scarce raw materials required for the manufacture of goods meant for export, as also finance to enable the manufacturers to process firm orders for export. In addition, the Corporation renders institutional service and guidance to manufacturers/exporters in Punjab.

### PUNJAB FINANCIAL CORPORATION

72/73, Sector 17-B, Bank Square, Chandigarh.

Is intended primarily to supply the financial requirements (loans, underwriting capital and deffered payment guarantee) of medium and small-scale industries in the State of Punjab only.

Loan sanctioned and disbursed from the Corporation's own funds up to 31st March 1969, amounted to Rs. 7,71,18,500·00 and Rs. 5,22,53,600 respectively. Loans disbursed under agency arrangements with the State Government upto 31st March 1969, amounted to Rs. 46,94,300·00.

# PUNJAB STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.

UCO Bank Building, 3rd Floor, Sector 17B, Chandigarh.

The Corporation is mainly engaged in promoting new large & medium scale industries in the State.

Following projects are at various stages of implementation: Brewery; Manufacture of Steel Billets from Scrap; Manufacture of Diesel Engines; Extraction of High Protein Flour from Cottonseed; Manufacture of Starch & Glucose from maize; Synthetic Detergents; Pre-stressed Concrete Poles; Manufacture of Fertilizer Granulation, Vegetable Ghee and other chemical plants; Tannery & Footwear; Nylon-sandwitched industrial leather belting; Low Cost Radio Receivers; and Tractors.

# THE PUNJAB STATE SMALL INDUSTRIES CORPORATION LTD.

Bank of Baroda Bldg., 1st Floor, Sector-17, Chandigarh.

Its objects are to aid, counsel, assist, finance, protect and promote the interests of small industries in the State.

Primary functions: Procurement, storage and distribution of all types of raw materials, both controlled and decontrolled. For this purpose, it has set up depots at Batala, Jullundur, Goraya, Ludhiana, Kartarpur, Malerkotla, Dhuri, Amritsar and Chandigarh. The Corporation also undertakes the supply of machinery on hire purchase to the small industries in the project area of Malerkotla.

### RAJASTHAN FINANCIAL CORPORATION

Surya Nivas, C-18, Bhagwandas Road, Post Box No. 63, Jaipur.

Object: To provide financial assistance to mediumand small-scale industrial concerns in the State.

# RAJASTHAN STATE HOTELS CORPORATION LIMITED.

Rajasthan State Hotel Premises, M. I. Road, Jaipur.

Object: To adequately meet the growing needs and giving full importance to Tourism both International and National.

The main aim of the Corporation in its overall activities is to include all such activities conducive to tourists' convenience and interests.

### TAMIL NADU AGRO INDUSTRIES CORPORATION LTD.

(A Government of Tamil Nadu Undertaking) 122, Mount Road, P.B. No. 4508, Madras 6.

Objects: To establish and run industries for manufacture of articles which will help the growth and modernisation of agriculture, Animal Husbandry, Pisiculture and Poultry farming; to establish and run industries for processing agricultural produce and products of pisicultural and animal origin for the purpose of increasing the availability of foods and subsidiary foods in the country and for export. The main business undertaken by the Corporation at present is to supply the ryots of Tamil Nadu with tractors, power tiller and oil engine and electric motor pumpsets on hire purchase basis.

During 1968-69 it was proposed to supply 10,000 pumpsets, 300 tractors and 30 power tillers on hire purchase basis at an estimated cost of Rs. 3,36,50,000.

# THE TAMIL NADU INDUSTRIAL INVESTMENT CORPORATION LIMITED

150-A, Mount Road, Madras-2.

The Main Objects: (i) to promote, improve, establish and develop industries in Tamil Nadu; (ii) to plan, formulate and execute industrial projects in Public Sector; (iii) to aid, assist and finance as co-promoters of industry in Private Sector etc.

Two major projects undertaken by it are:- 1. Tamilnad Cements, Alangulam; 2. Continuous Steel Casting Plant, Arkonam.

# TAMIL NADU SMALL INDUSTRIES CORPORATION LTD.

35/2, Woods Road, Mount Road, Madras-2.

Incorporated with the object of taking over industrial units earlier run departmentally and to undertake production and servicing jobs in these units.

### TAMIL NADU TEXTILE CORPORATION LIMITED

46, Thiagaraya Road, Madras 17.

Objects: Managing and controlling any textile mill in Tamil Nadu which may be taken over by the Government and of assisting Textile Industry in general.

The authorised capital of the company is Rs. 5/- crores.

# THE TAMIL NADU WAREHOUSING CORPORATION

9/10, Moore Street, Madras-1.

The main functions are: (a) to acquire and build warehouses within the State; (b) to run warehouses in the State for storage of agricultural produce, seeds, manures, fertilisers and notified commodities and (c) to act as agent of the Central Warehousing Corporation or of the Government for the purposes of the purchase, sale, storage and distribution of agricultural produce, seeds etc.

The Corporation provides about 75,941 tonnes storage capacity in 27 of its warehouses of which eleven are owned and constructed warehouses.

### U. P. FINANCIAL CORPORATION

7/154, Swarupnagar, Kanpur-2.

The object is to provide finance to small and mediumscale industries.

### U. P. SMALL INDUSTRIES CORPORATION LIMITED

14/40, Civil Lines, Kanpur.

Object: To assist the development of small industries in the State.

### U. P. STATE INDUSTRIAL CORPORATION LIMITED

Building of the Directorate of Industries, 117/420, G. T. Road, Post Box No. 413, Kanpur.

Objects: To assist the process of rapid and extensive industrialisation of the State.

Activities: (1) Acquisition and development of land in Ghaziabad, Hardwar, Bareilly, Kanpur, Lucknow, Gorakhpur, Allahabad and Mirzapur for offering to industrialists on lease; (2) Underwriting of Share Capital of public limited companies; (3) Working of certain selected mineral deposits within the State of U.P. for supply to industrial concerns; and (4) Establishment of a Power Tiller Project in the public sector with or without foreign collaboration; (5) Establishment of a Dead Burnt Magnesite Project in Almora Dist.

# WEST BENGAL INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

(A Govt. of West Bengal Undertaking)

P-15, India Exchange Place Extn. (8th Floor), Calcutta 12.

The Corporation is actively engaged in assisting in the balanced growth and development of industries in the State with special emphasis on the development of small and medium enterprises through: a) granting loans; b) participation in/underwriting of shares; c) survey of suitable areas for development as industrial areas/industrial estates; d) sponsoring new industries, and e) guaranteeing loans and deferred payments.

### WEST BENGAL FINANCIAL CORPORATION

4, Kiron Sankar Roy Road (1st Floor), Calcutta-1.

Object: To provide financial assistance, chiefly by way of long and medium term loans, to industrial concerns in the State.

# WEST BENGAL SMALL INDUSTRIES CORPORATION LTD.

(A Govt. of West Bengal Undertaking)
45, Ganesh Chandra Avenue (2nd Floor),
Calcutta-13.

This Corporation looks after the various problems facing the cottage and small scale industries of the State.

Activities: Procurement and distribution of raw materials and marketing the finished products mostly consumer goods of the Cottage and Small-scale Industrial Units of the State through the Corporation's Sales Emporia within and outside the State of West Bengal and financing the supply of raw materials and their import.

### BULLION

The following table gives details about the trend of silver production from 1966 to 1968:—

(In	mil	lions	of	OHD	Ces

	A CONTRACTOR		DESCRIPTION OF THE PARTY.
Countries	1966	1967	1968
United States of America	43.7	32.8	35.0
Mexico	42.0	38.3	41.6
Canada	33.3	36.4	45.6
Peru	32.8	37.0	37.0
Bolivia	5.1	5.0	5.0
Other South and Central			
American Countries	10.3	10.0	11.0
Total Western Hemisphere	167.2	158.8	175 - 2
Outside the Western			
Hemisphere	57.5	58.0	63.0
World Production	224.7	216.8	238 · 2

The recent trend of silver consumption (partial data) is given in the following table:—

(In millions of ounces)

	1966	1967	1968
INDUSTRIAL USES	Lateral Area	Di aliya fa	STATISTICS
United States	. 150.0	145.0	145.0
West Germany	10.0	48.2	45.0
United Kingdom .	. 25.0	24.0	23.0
Canada	-	5.4	5.1
Japan	. 31.5	31.3	34.0
France	. 14.7	14.7	14.2
Italy	. 30.0	30.0	30.0
Mexico	. 3.9	5.0	5.0
India	. 16.0	15.0	16.0
Other Countries .	. 30.0	30.0	30.0
Total	. 355.1	348.6	347.3
COINAGE .	DESCRIPTION OF		( delign)
United States*	. 53.6	43.8	36.8
Therese	. 8.7	9.6	2.9
Tholes	. 4.6	1.9	0.5
Canada		8.8	4.3
Japan	. 9.0		
Other Countries .	. 39.0	25.0	15.0
Total Coinage .	. 130.4	89.1	59.5
World Total consumption of Silver excludin	g	audicies.	
Communist countries	485.5	437.7	406.8

Note:—The consumption estimates are by Handy and Harman.

• Coinage for consumption purpose are obtained entirely from Treasury stocks and have never been part of market demand.

### World Gold Production

(In Million of US Dollars at 35 US Dollars per Fine Ounce)

		W	1966	1967	1968
United States			63 · 1	53.4	
Canada			114.6	103.7	94.1
Africa					
South Africa	7		1 080 - 8	1,061.6	1,088.0
Ghana			24.0	26.7	25.4
Rhodesia					- 1
Congo Dem. R	ep.		5.6	5.3	5.9
Latin America				of the live	
Mexico			7.5	6.4	5.2
Nicaragua			5.2	5.2	4.9
Columbia			9.8	9.0	8.4
Peru			3.9		
Asia	1.		43.3		-
Japan	224		19.4	23.7	21.5
Philippines			15.9	17.2	18.5
India			4.2	3.6	4.0
Europe			-		-
Oceania			37.2		-
Australia			32.0	28.2	27.6
World Total			1,440.0	1,410.0	

(SOURCE: International Financial Statistics).

— Means not available.

### Assaying and Refining of Gold and Silver

Some relevant statistical data are given below:-

(Kilograms)

V	Melting and Assayi	ing Refi	Refining				
Year	Gold Silver	Gold	Silver				
1965-66	 138,56(b)(c) 2,41	57.04(d)	_				
1966-67	 5,927(e) 29,15	50,52(d)	MON AND				
1967-68	 6(e) 40,97	55,41(d)					
1968-69	 2,025(b)(c) 13,366	11.354(d)	- V				

- (b) Including gold received against 7 per cent Gold Bonds, 1977 and National Defence Fund.
- (c) Including gold received against 7 per cent Gold Bonds, 1980 and National Defence Gold Bonds, 1980 and gold received from Alipore Mint.
- (d) Including confiscated gold received from Customs and Central Excise Department and State Governments.
- (e) Including gold received against National Defence Fund and National Defence Gold Bonds.

(Source: Report on Currency and Finance 1968-69).

### Prices of Gold and Silver—Bombay (a)

Year/M	fonth		(	Gold (b) Rs. per 10 gram Spot	as)	(	Silver Rs. per kilogran Spot	m)
Tea le pr			Highest	Lowest	Average(c)	Highest	Lowest	Average(c)
1965-66		 	85.00	70.50	77.78	406.00	281.00	314.62
1966-67		 	92.75	76.00	83 - 85	385.00	336.00	358.88
1967-68			168.00	146.00	156.97	565.00	346.00	430.09
1968-69		 	181.00	150.50	160.45	633.00	508.00	556.67

(a) Including nominal quotations also. (b) Relating to 14 carat, quoted from August 28, 1963. for working days. (SOURCE: Report on Currency and Finance 1968-69).

(c) Average of closing quotations

The following table gives the average silver quotations in New York and London from 1964 to 1968:

			New York Average	London Average (spot)
	-	10 100	Cents	Pence
1964			129.30	111.92
1965	14		129.30	111.58
1966			129.30	111.80
1967			155.00	142.00
1968		=04	214.50	219.50

#### GOLD AND SILVER

The year 1968-69 witnessed two significant developments in the bullion market. The Gold Control, which since January 1963 was administered under the Defence of India Rules, 1962 (Part XIIA), has been brought on a permanent statutory footing from September 1, 1968 with the passing of the Gold (Control) Act, 1968. In regard to silver, an Ordinance, amending the Sea Customs Act, 1962, was promulgated on January 3, 1969 with a view to curbing the large-scale unauthorised exports of the metal. As regards trading in the Bombay bullion market, the prices of both the metals scaled new peaks.

The Gold (Control) Act, 1968 besides retaining the main provisions of the earlier gold control regulations, as modified in November 1966, has incorporated the following new provisions designed to plug the loopholes in the gold control rules: (i) a licensed dealer or refiner has to declare all gold articles and ornaments belonging to him notwithstanding the exemption limits allowed for the general public, (ii) an explanation has been added to the definition of the term "ornaments" with a view to excluding crude

manufactures of gold from the facility available in law for the acquisition, possession etc. of genuine ornaments, (iii) in order to ensure that the members of the public get quality goods from the dealers it is provided that every licensed dealer shall stamp every piece of article or ornament prepared by him, certifying the purity of gold, (iv) in order to avoid trafficking in smuggled gold, it is laid down that an artisan employed by a dealer shall work only at the dealer's premises and not outside, and (v) certificates are now granted to the goldsmiths on a permanent basis instead of annual certificates given hitherto.

During the year, steps to prevent smuggling of foreign goods including bullion into the country were further strengthened. With a view to facilitating the detection and confiscation of certain notified goods smuggled into the country and preventing smuggling of silver out of the country, the Customs (Amendment) Ordinance, 1969 was promulgated on January 3, 1969. The notifications issued under the Ordinance provide for, in respect of notified goods including silver, intimation of place of storage, furnishing details of notified goods, maintenance of accounts, transport and sale under cover of vouchers and reasonable precautions before acquisition.

Following the introduction of a two-tier system of gold prices in the wake of world monetary crisis in March 1968, the gold prices in the London market stood at \$ 38 per ounce on April, 1968. Throughout the year the free market price commanded a high premium over the official or monetary price and rose to \$43.75 by March 10, 1969 in the London market; on that day the price in Paris shot upto \$48.43 per ounce. Towards the close of the year there was a slight abatement of the pressure on gold prices.

Silver prices in the international markets moved rather erratically but closed lower on balance.

### FOREIGN EXCHANGE CONTROLS

THE par value is Indian Rupees  $7\cdot 50 = \text{US}\$1$ . All transactions in foreign exchange must be conducted through authorised dealers, whose dealings with the general public must be effected as follows: in sterling, at rates fixed by the Foreign Exchange Dealers' Association; in other currencies, at rates based on the fixed rates for sterling and the London market rates for sterling against the other currency concerned. Authorised dealers are permitted to cover their requirements of foreign currencies in the London market, and to cover their permitted transactions in certain currencies against sterling, rupees, or any one of these currencies, either spot or forward for periods not exceeding six months, with authorised banks in any country outside the Bilateral Account group.

### ADMINISTRATION OF CONTROL

Exchange control is administered by the Reserve Bank of India, in accordance with the general policy laid down by the Indian Government in consultation with the Reserve Bank. Much of the routine work of exchange control is delegated to certain commercial banks, which act as authorised dealers permitted to buy and sell foreign exchange for specified purposes under regulations laid down by the Reserve Bank.

### DEVELOPMENTS IN EXCHANGE CONTROL

The major developments in the sphere of exchange control during 1968-69 related to export promotion, pursuit of studies abroad, investments by non-residents

of Indian origin, booking of passage for travel abroad and delegation of powers to authorised dealers. In keeping with the objective of liberalising exchange facilities for export promotion, (i) the minimum annual export turn-over prescribed for the issue of blanket exchange permits was reduced, (ii) registered Export Houses, irrespective of their past performance, were made eligible for the grant of blanket permits, (iii) the purpose for which blanket permits could be utilised was liberalised, (iv) exporters were permitted to receive advance remittances from overseas buyers and (") the conditions governing release of exchange for export promotion tours to new firms entering the export field were relaxed. As regards studies abroad, (i) exchange facilities were granted for post-graduate diploma courses in non-technical subjects and for courses in Management or Administration by B.Sc. and engineering graduates, (ii) the minimum marks stipulated were relaxed in the case of students with teaching or research experience and (iii) the validity period of the foreign exchange permits was changed from one year to the total duration of the course. Non-residents of Indian origin were permitted to invest in public or private limited companies irrespective of whether the companies are engaged in industry, trade or business. Further, as an experimental measure, for a period of three years, they were also permitted to invest in partnership and proprietorship concerns subject to certain conditions. Airline/steamer companies were allowed to book passages in the case of certain categories of travellers without prior permission of the Bank. As an experimental measure, P form clearance facilities were granted in certain cases, provided the host abroad agreed to meet the total cost including passage both ways. Powers were delegated to authorised dealers for undertaking certain types of transactions so as to minimise the inconvenience and delay. These developments are detailed below.

### **Export Promotion**

In April 1968, the minimum annual export turnover prescribed for the issue of blanket exchange permit to exporters was reduced from Rs. 20 lakhs to Rs. 5 lakhs in the case of non-traditional goods. For traditional goods, the separate minimum annual turnover prescribed earlier for tea and jute goods (Rs. 100 lakhs) and all other items (Rs. 50 lakhs) was abolished and a uniform minimum annual turnover of Rs. 25 lakhs was made applicable to all traditional goods. The registered Export Houses were also made eligible for the grant of blanket exchange permits irrespective of their past performance. Further, the purpose for which the exchange authorised under blanket permits could be utilised was liberalised in that it could now be used not only for travel abroad but also for a few additional purposes, such as, conducting market studies, advertising abroad, participation in overseas exhibitions, trade fairs etc. For meeting these additional requirements, the value of blanket permits has been enhanced by 50 per cent. In view of the difficulties experienced by exporters in raising funds locally for export financing, they have now been permitted to receive advance remittances from overseas buyers/agents provided the rate of interest payable does not exceed 8 per cent and that the shipments are effected within one year from the date of receipt of the advance.

In keeping with the objective of liberalising exchange facilities for export promotion tours, the official recommendation required to be furnished by new firms, entering the export field, in support of their applications for release of exchange, was discontinued in May 1968.

#### Education

The minimum marks prescribed for the release of exchange to holders of engineering degree proceeding abroad for taking up degree courses in engineering or other technical subjects was raised from 55 per cent to 60 per cent in April 1968. Engineering graduates with 60 per cent marks were also made eligible for the grant of exchange facilities for taking up diploma courses in technical subjects. Beginning with September 1968, however, the minimum marks stipulation was dispensed with in the case of candidates who have secured the first or second rank in their degree examination.

The foreign exchange facilities granted hitherto to students with 60 per cent marks in Honours or Master's degree examination for taking up degree courses in nontechnical subjects were extended in April 1968 to cover post-graduate diploma courses in non-technical subjects at any university or institution. The minimum marks stipulation was, however, dispensed with in May 1968 in the case of students who had secured the first or second rank in the Honours or Master's degree examination. The requirement of 60 per cent marks was further relaxed again in May 1968 in the cases of all studies, whether technical or non-technical and whether it leads to a degree or diploma, provided the candidates have secured 50 per cent marks in their degree examination and have at least two years' teaching or research experience or five years' experience in an industry related to the proposed course of study abroad.

In July 1968 the foreign exchange facilities for taking up degree courses in Management or Administration, which were hitherto granted to candidates with 60 per cent marks in Honours or Master's degree examination, were extended to B.Sc. degree holders and engineering degree holders with 60 per cent marks. Holders of diplomas, which have been recognised as equivalent to a degree for recruitment to Central Government services, were made eligible in March 1969 for grant of foreign exchange facilities on lines similar to those extended to corresponding degree holders.

In order to avoid inconvenience to parties making remittances against permits issued to students for their studies abroad, it was decided in January 1969 to discontinue issuing permits valid for one year at a time and instead issue permits valid for the total duration of the course. Authorised dealers were empowered to effect remittances during the validity period of the permit provided the necessary documentary evidence in regard to progress made by the student is furnished by the remitter.

Investments by non-residents of Indian Origin: In May 1968 it was decided to permit withdrawals from the National Defence Remittance Scheme Special Accounts held by non-residents of India an origin for purposes of extending loans to or for investment in interest bearing deposits with public or private limited companies on the following conditions, namely, (a) the rate of interest payable on the loan or deposit does not exceed 12 per cent per annum and (b) the borrowing company would give an undertaking to the effect that the interest and principal amount will be credited back to the respective Special Accounts and that the loan or deposit will not contravene the requirements notified from time to time by the Non-Banking Companies Department of the Bank.

Hitherto, investments by non-residents of Indian origin in public or private limited companies were permitted only in those companies which are engaged in industry and not in trade or business. This stipulation was withdrawn in November 1968 and investments are now permitted irrespective of whether the companies are engaged in industry, trade or business; the restriction on the repatriation of dividends and sale proceeds of investments would, however, continue. In December 1968, it was decided to permit, as an experimental measure for a period of three years, investments by non-residents of Indian origin in partnership and proprietorship concerns subject to the condition that neither the capital invested nor the profits earned would be allowed to be repatriated abroad and that this would be credited to the non-resident blocked account of the investor until such time he takes up Indian citizenship. This facility was also extended to funds held in National Defence Remittance Scheme Special Accounts - subject to the same conditions except that profits and sale proceeds will have to be credited to the respective Special Accounts.

#### Booking Passage

Airline/steamer companies and Travel Agents were authorised in June 1968 to book, without obtaining prior approval of the Bank, passages in respect of certain categories of travellers, such as (a) wife and children proceeding abroad to join the head of family employed abroad provided the passage fare has been paid abroad, (b) Indian nationals employed abroad returning to their country of employment after a visit to India, provided passage fare has been paid abroad, (c) members of families of airline/steamship company staff who are posted

for duty abroad for at least one year, (d) persons holding letters of appointment from foreign Governments provided Prepaid Ticket Advice has been received from abroad in respect of the passage and (e) employees posted for duty at overseas branches of Indian banks and insurance companies and members of their families.

In March 1969, it was decided to grant, as an experimental measure, depending on the bonafides of the case, 'P' form clearance for visits abroad based on hospitality extended by persons who are not close relatives and by friends provided the host abroad not only agrees to meet the cost of the stay abroad, but also remits the cost of passage both ways. The 'P' Form clearance under this arrangement would be restricted to one month and to the country in which the host is residing.

### Delegation of Powers

With a view to minimising inconvenience and delay, further powers were delegated to the authorised dealers in September 1968 for undertaking certain types of transactions without obtaining the prior approval of the Bank. Accordingly, the amounts upto which they could make remittances, without prior approval for payment of subscriptions or membership fees by firms or companies and other corporate bodies and for meeting legal expenses in connection with dishonoured export bills were raised from £ 15 per annum to £ 100 per annum and from Rs. 500 to Rs. 1,000 respectively. Authorised dealers were also allowed to effect remittances not exceeding £ 15 towards foreign university admission fees and a similar amount on account of examinations held in India for securing admission in foreign institutions. They have also been permitted to grant loans or overdrafts upto Rs. 20,000 to their non-resident constituents who are Indian nationals or persons of Indian origin provided the advances are fully secured by deposits or rupee securities acquired by the constituents out of their remittances from abroad.

#### Others

The other developments during the year were the following: (a) North Korea, which was excluded from the list of bilateral account countries in 1964, was again included in the bilateral account group in April 1968 following the extension of the trade agreement with that country for a period of two years beginning with January 1968. (b) The forward sales of exchange against imports on a deferred payments basis, which were hitherto subject to the condition that deliveries should correspond to the instalments falling due under the relative letters of credit or guarantees approved by the Bank were liberalised in June 1968 and authorised dealers were permitted to make forward sales for the aggregate amount of payments to be made under the relative letters of credit or guarantees. (c) In order to meet the rising cost of living in foreign countries the scales at which exchange is released for business travel abroad were revised upwards in June 1968. These revised scales were also made applicable to journalists proceeding abroad and others going abroad for conferences or on study tours. (d) Following the introduction of the Import Deposit Scheme in the U.K. the period of realisation of 50 per cent of the invoice value of goods exported from India to the U.K. which comes under the purview of the Scheme, was extended, as a temporary measure in January 1969 to eight months so as to enable the exporters to grant credit facilities to U.K. importers for a period longer than usual; the remaining 50 per cent is to be received within the stipulated six months period. Authorised dealers were permitted to purchase sterling represented by the 50 per cent value covered by this relaxation for delivery upto eight months forward. To enable the authorised dealers to offer this facility the Bank agreed to buy sterling from them for delivery within eight months at the same rate as applicable to purchases for delivery within six months.

(Source: Report on Currency and Finance, 1968-69 by Reserve Bank of India).

### INDIA'S INTERNATIONAL INVESTMENT POSITION IN 1965-66 AND 1966-67†

INDIA has increasingly shown a net debtor position in regard to international investments since the beginning of the Second Plan. The net external indebtedness of the country rose by Rs. 562 crores in 1965-66 to Rs. 3,853 crores in March 1966 and by a further Rs. 952 crores in 1966-67 to Rs. 4,805 crores in March 1967. This net addition of Rs. 1,514 crores was nearly 50 per cent higher than in the two previous years 1963-64 and 1964-65 (Rs. 1,046 crores) and was the result of a net inflow of Rs. 1,274 crores into the official sector (Rs. 473 crores in 1965-66 and Rs. 801 crores in 1966-67), and of Rs. 240 crores into the non-official sector (Rs. 89 crores and Rs. 151 crores respectively).

The country's gross external liabilities at Rs. 5,587 crores as at the end of March 1967, went up by about Rs. 1,557 crores over the two year period under review (Rs. 620 crores in 1965-66 and Rs. 937 crores in 1966-67). The bulk of the increase in liabilities was on account of the official sector (Rs. 554 crores in 1965-66 and Rs. 768 crores in 1966-67). Most of the increase in 1965-66 and the whole of it in 1966-67 were due to borrowings abroad (net of repayments). Excluding net drawings on the I.M.F. as well as P. L. 480 assistance, the external loans, net of repayments, amounted to Rs. 372 crores in 1965-66 and Rs. 408 crores in 1966-67.

The liabilities of the private sector, representing the outstanding foreign direct and portfolio investments, increased by Rs. 74 crores in 1965-66 and by Rs. 161 crores in 1966-67.

Industrywise the bulk of the total net inflow of foreign investments (both direct and portfolio) in the private sector went into manufacturing (Rs. 56 crores in 1965-66 and Rs. 95 crores in 1966-67) and services (Rs. 28 crores in 1965 and Rs. 79 crores in 1966-67).

Countrywise, about 60 per cent of the total net inflow (direct and portfolio combined) in each year was from the U.S.A. and the U.K. The U.S.A. accounted for 44 per cent and the U.K. for 14 per cent in 1965-66 against 39 per cent and 32 per cent respectively in 1966-67. The prominent among the other countries was West Germany with 10 per cent in 1965-66 and 14 per cent in 1966-67. The country's external assets increased by a small amount (Rs. 43 crores) during the two years to Rs. 782 crores at the end of March 1967.

### OFFICIAL SECTOR

Gross liabilities of the official sector rose by Rs. 554 crores in 1965-66 and by Rs. 768 crores in 1966-67. The bulk of the increase in total liabilities in each of the two

8

† Source: August 1969 Issue of the Reserve Bank of India Bulletin.

years was by way of a rise in drawings, net of amortisation payments, on foreign loans obtained from various countries under the external assistance programme; these amounted to Rs. 452 crores in 1965-66 and to Rs. 752 crores in 1966-67. The large utilisation reflected the shift in the emphasis from project to non-project assistance from the consortium countries. In addition to these

drawings on the various lines of external credit, there were net drawings on the I.M.F. to the tune of Rs. 30 crores and Rs. 46 crores during the two years respectively.

Other liabilities declined by about Rs. 30 crores in 1966-67 wholly due to a fall in P.L. 480 balances and increased by Rs. 72 crores in 1965-66 mainly due to a rise in the liabilities arising out of P.L. 480 transactions.

TABLE I - Official Sector: Foreign Assets and Liabilities

(Rs. Crores)

	As at the e	nd o	f		1965	1966	19	967
447	215 00 010 0	114			1000	1300	(a)	(b)
(I)	Assets				 545.4	627.4	810.0	594.1
	1. Foreign exchang	e res	ervest		115.9	182-1	295.9	145.6
	2. Others*				 429.5	445.3	514.1	448.5
(II)	Liabilities		HOUR !	45.00	 2,889.6	3.444.0	5,661.4	4,211.7
	1. I.M.F. drawings				 107.2	137.0	313.2	183.2
	2. Loans				 2,235.5	2,687.9	4,694.6	3,440.1
	3. Other@		1. 1		 546.9	619.1	653.6	588.4
(III)	Net Position				$-2,344 \cdot 2$	-2,816.6	-4.851.4	-3.617.6

<sup>†</sup> Excluding gold holdings. • Comprise mainly (i) Claims on Pakistan under the Partition Debt (Rs. 300 crores), (ii) gold and foreign currency subscriptions to international institutions and (iii) loans extended to foreign governments. @ Comprise mainly (i) rupee liabilities to non-resident official institutions including balances held with the R.B.I. by the East European Countries under payment agreements, (ii) P.L. 480 and 665 balances and (iii) liabilities to Kuwait, Bahrain and Qatar consequent upon withdrawal of Indian currency from these countries.

Assets: Gross assets of the official sector increased by Rs. 82 crores in 1965-66 but fell by Rs. 33 crores in 1966-67, both mainly on account of changes in the country's foreign exchange reserves. Reserves rose by Rs. 66 crores in 1965-66 owing partly to a net drawing on the I.M.F. (Rs. 30 crores) and partly to other contributory factors such as receipts under the National Defence-Remittance Scheme. The external payments position became critical in 1966-67 resulting in a net deficit of Rs. 37 crores on reserves. The fall in reserves would have been larger during the year but for the net assistance from the I.M.F. (Rs. 46 crores).

Other assets of the official sector showed only small rises of Rs. 16 crores and Rs. 3 crores respectively during the two years. The increase in 1965-66 was wholly due to India's additional gold subscription to the I.M.F. (Rs. 18 crores) consequent upon the general increase in member's quotas while in 1966-67 it was mainly due to the subscription to the Asian Development Bank (Rs. 7 crores).

Country-wise Position: More than one half of the total external liabilities of the official sector of Rs. 4,212 crores at the end of March 1967 was to the U.S.A. (Rs. 2,305 crores or 55 per cent). The balance was mainly on

account of international financial institutions (Rs. 757 erores or 18 per cent), the U.K. (Rs. 333 erores or 8 per cent), the U.S.S.R. (Rs. 274 erores or 7 per cent), West Germany (Rs. 241 erores or 6 per cent) and Japan (Rs. 113 erores or 3 per cent).

About one half of the total official external assets of Rs. 594 crores as at the end of March 1967 represented the claims on Pakistan under the Partition Debt (Rs. 300 crores); sterling and dollar holdings held in the U.K. and the U.S.A. accounted for about a fifth and the bulk of the balance represented capital subscribed to the international institutions (22 per cent).

### PRIVATE SECTOR

Owing to the continued inflow of foreign investments, the net debtor position of the private sector increased by Rs. 97 crores in 1965-66 and further by Rs. 152 crores in 1966-67 bringing the total net external indebtedness of this sector to Rs. 1,111 crores as at the end of March 1967 (Table below).

Gross liabilities of this sector increased by Rs. 234 crores during the years together, while its total assets showed a decline of Rs. 15 crores.

TABLE II - Foreign Assets and Liabilities of the Private Sector

(Rs. Crores)

	As at the er	nd of N	Jarch			1965	1966	1:	967
			TOT CIT			1905	1900	(a)	(b)
(I)	Assets	34.00		Mark.	15.00	140.7	118-1	150.7	125.9
131	1. Short-term*					103.0	80.4	113.0	88.2
- Carlon	2. Long-term@	- 44 V	1.00			37.7	37.7	37.7	37.7
(II)	Liabilities	4000	7 20	The state of		1,003 · 2	1.077-2	1,492.8	1.236.9
	1. Short-term†					8.2	7.3	10.4	6.3
	2. Long-term††					995.0	1,069.9	1.482.4	1,230.6
II)	Net Position					-862.5	-959.1	$-1,342 \cdot 1$	-1.111.0
	1. Short-term					94.8	73.1	102.6	81.9
	2. Long-term					-957.3	$-1.032 \cdot 2$	-1.444.7	-1,192.9

<sup>•</sup> Short-term assets comprise mainly export bills which are in the nature of short-term trade credits by exporters and credit balances in the accounts of rupee companies/firms which are accorded special facilities to retain their export proceeds abroad for meeting their foreign exchange commitments or are allowed to make periodic block remittances for honouring their commitments subject to rendering of accounts to the Exchange Control Department. † Short-term liabilities consist of mainly debit balances in the company accounts and net unremitted dividends accruing to non-residents on their investments in rupee companies.

<sup>@</sup> Long-term assets cover investments of rupee companies in foreign securities and branches and miscellaneous assets such as lands, estates, buildings, long-term deposits, loans and advances. These are as per survey of India's Foreign Liabilities and Assets, 1961, and in the absence of such a survey, it has not been possible to indicate the correct position in their regard in the subsequent period.

<sup>††</sup> Long-term liabilities represent book value of outstanding foreign business investments. (a) Include valuation changes arising from the devaluation of the rupee in June 1968, which are excluded from figures for 1967 (b).

Outstanding Long-term Foreign Business Investments: Long-term liabilities, which represented outstanding foreign business investments, increased from Rs. 995 crores in March 1965 to Rs. 1,070 crores in March 1966 and further to Rs. 1,231 crores in March 1967 (Table 3). The whole of the increase in investment witnessed during

the two years under review, was due to rupee companies, since branches in fact reduced their investments during the period. The share of the rupee companies in the total outstanding investments in this sector, therefore, increased from 74 per cent in March 1965 to 77 per cent in March 1966 and further to 80 per cent in March 1967.

TABLE	III - P	rivate	Sector -	Long-term	Liabilities
-------	---------	--------	----------	-----------	-------------

(Rs. Crores)

					1005	1966 -	196	37
	As at the end of M	larch			1965	1900 -	(a)	(b)
(I)	Direct Investments*				610 · 1	633 · 1	700.5	654 · 7
(1)	1. Branches			10.5	262.2	250.8	290.6	248 · 3
	2. FCRC				347.9	382.3	409.9	406.4
	(i) Subsidiaries				267.6	288.2	307.8	305.5
	(ii) Others		-leading	(5) 1 m	80.3	94.1	102.1	100.9
TI	Portfolio Investments		18.50		384.9	436.8	781.9	575.9
I)	. 70		e - i jal	-	54.7	57.0	63 - 2	63 · 2
					330 · 2	379.8	718.7	512.7
		**		***	10.9	10.9	11.1	11.1
		T. CA. A.		100	229.0	263.7	468.8	338-1
	(ii) Loans		* *	***	90.3	105.2	238-8	163.5
	(iii) Suppliers' Credi	183	**		00.0	230.2		
	TOTAL (I &	II)			995.0	1,069.9	1,482.4	1,230.6

<sup>\*</sup> Cover (a) net assets in India of branches, representing the net claims on them by non-residents and (b) the equity holdings of investors in the country of control and their proportionate share in the free reserves of the FCRC. FCRC = Foreign Controlled Rupee Companies. † Represent ordinary shares to the extent these are held by the investors in countries other than the country of control. ‡ Represent non-resident holdings of preference shares and debentures of the rupee companies. § Suppliers' Credit for imports. (a) Include valuation changes arising from the devaluation of the rupee in June 1966, which are excluded from figures for 1967 (b).

The category-wise composition of investments revealed that direct investments at Rs. 655 crores in March 1967, accounted for 53 per cent of the total outstanding foreign investments in the private sector as against 59 per cent in March 1966 and 61 per cent in March 1965. The fall in the relative share of direct investments was due to a more rapid rise in portfolio investments during the period, which in turn stemmed from creditor capital obtained by the rupee companies which, at around Rs. 513 crores in March 1967, accounted for 42 per cent of total investments as compared to 33 per cent in March 1965.

### Foreign Investment Flows

Long-term foreign business investments in the private sector went up by Rs. 74 crores in 1965-66 and by Rs. 161 crores in 1966-67. This was the result of a gross inflow of Rs. 119 crores and Rs. 232 crores; offset partly by an outflow of Rs. 45 crores and Rs. 71 crores, respectively in the two years.

The share of the utilisation of loans and suppliers' credits to the total inflow increased from 79 per cent in 1965-66 to 87 per cent in 1966-67. The share of direct investments declined correspondingly during the period. Share Capital inflow both direct and portfolio together accounted for about Rs. 17 crores in each of the two years. Nearly the whole of the outflow was due to repayments of creditor capital.

#### Direct Investments

There was a deterioration in net inflow of foreign direct investments. These nearly halved to Rs. 22 crores in 1965-66 as compared with the previous year and continued around the same level in 1966-67. The deterioration in 1965-66 was mostly due to a fall in fresh capital coming in, which dropped steeply from Rs. 23 crores in 1964-65 to Rs. 3 crores in 1965-66. More than half the decline in the fresh inflow represented net disinvestment in branches which transferred funds to their head offices to the extent of Rs. 11 crores in 1965-66 as against an inflow of Rs. 2 crores in 1964-65. The disinvestment was mainly in petroleum and plantation industries.

The fall in foreign direct investments was accentuated by a reduction of about Rs. 7 crores in 1965-66 in the fresh inflow of equity share capital into rupee companies.

The small reduction of about Rs. 2 crores in retained earnings in rupee companies in 1965-66 as compared with the previous year was due to a special circumstance. A sum of about Rs. 7 crores, which represented a transfer of excess depreciation provision to free reserves was included under retained earnings during 1964-65. Although total earnings continued to be more or less of the same order during 1966-67 as in the previous year, dividends distributed were at a higher level (61 per cent as compared to 53 per cent in the previous year) and as a result, retained earnings showed a fall in 1966-67.

TABLE IV — Profits of Foreign Controlled Rupee Companies (Rs. Crores)

		W. L	77.00	7.170	1964-65		W. 100	1965-66			1966-67	
	Industry				Distri- buted			Distri- buted	Retained	Earned	Distri- buted	Retained
I.	Plantations			1.1	0.5	0.6	0.7	0.6	0.1	1.0	0.6	0.4
II.	Mining			12.3*	4.1	8.2*	5.9	4.8	1.1	3.4	6.3	$-2.9 \\ 17.2$
IV. V.	Manufacturing Services			25·4 1·8	14.5	10·9 0·7	30.9	14·6 1·1	16.3	33·0 1·3	1.1	0.2
	Total			40.6	20.2	20.4	39.9	21.1	18.8	38.7	23.8	14.9

Note: Profits earned, distributed and retained represent the proportionate share of the country of control in the total of the same, net of taxes in India. \* Includes Rs. 6-7 crores, representing transfer of excess depreciation to free reserves.

#### Portfolio Investments

The bulk of the portfolio investments during the two years under review was by way of foreign loans and suppliers' credits. Loans represented borrowings abroad by rupee companies either from parent companies or from financial or other agencies for purposes of imports while the suppliers' credits represented the liability incurred by rupee companies for imports on a deferred payment basis.

Gross inflow by way of loans and suppliers' credits in 1965-66 was more or less around the same level of Rs. 95 crores as in the previous year. It increased substantially to Rs. 203 crores in 1966-67. After taking into account repayments of loans/credits to the extent of Rs. 45 crores in the first year and Rs. 70 crores in the next year, the net inflow of creditor capital amounted to Rs. 50 crores in 1965-66 and Rs. 133 crores in 1966-67.

Total net portfolio investment during the two years, taking into account a small net inflow of equity share capital of Rs. 2 crores in 1965-66 and Rs. 6 crores in 1966-67, may be placed around Rs. 52 crores and Rs. 139 crores respectively. As a result, the outstanding foreign portfolio investments in the private sector moved up substantially from Rs. 385 crores in March 1965 to Rs. 576 crores in March 1967. More than one half of the total portfolio investment liability as at the end of March 1965 and 1967 (about 56 per cent or Rs. 220 crores and Rs. 325 crores, respectively) was owed to foreign private parties.

#### Country-wise Investments

The following table gives a country-wise break-up of the total outstanding foreign investments in the private sector in India.

TABLE V -

### Private Sector: Long-term Foreign Business Investments (Country-wise)

(Rs. Crores)

	Out- standing invest- ments as at	190	63-64	19	64-65	1965	5-66	19	66-67	inve as	standing stments at end ch 1967
	end March 1963	Gross inflow	Net inflow	Gross inflow	Net inflow	Gross inflow	Net inflow	Gross inflow	Net inflow	(a)	(b)
U.K Private direct Private portfolio	493·2 423·9 69·3	19·0 8·5 10·5	13·8 8·5 5·3	34·9 25·3 9·6	29·8 25·1 4·7	18·4 8·6 9·8	10·5 8·4 2·1	45·8 8·9 36·9	36·2 8·4 27·8	655·4 521·8 133·6	587·0 477·8 109·2
U.S.A Private direct Private portfolio Official portfolio	$\begin{array}{ccc} & 119 \cdot 8 \\ & 74 \cdot 5 \\ & 12 \cdot 3 \\ & 33 \cdot 0 \end{array}$	$45 \cdot 1$ $8 \cdot 0$ $2 \cdot 9$ $34 \cdot 2$	$43 \cdot 1 \\ 8 \cdot 0 \\ 1 \cdot 9 \\ 33 \cdot 2$	57·1 11·0 17·6 28·5	52·5 11·0 16·3 25·2	43·3 4·0 10·6 28·7	32.6 $4.0$ $5.9$ $22.7$	80·9 1·8 21·4 57·7	62·1 1·8 15·8 44·5	375·8 99·9 68·8 207·1	309·8 99·0 52·2 158·6
Germany (West) Private direct Private portfolio Official portfolio	24·2 6·2 18·0	2·4 0·2 2·2	-0·3 0·2 -0·5	9·8 2·8 4·6 2·4	6·8 2·8 1·6 2·4	11·2 1·9 4·0 5·3	7·5 1·9 0·5 5·1	29·4 2·0 15·9 11·5	23·3 2·0 10·6 10·7	81·5 13·7 45·2 22·6	61·7 13·3 30·2 18·2
Japan Private direct Private portfolio Official portfolio	$\begin{array}{ccc} & 15 \cdot 2 \\ & 1 \cdot 1 \\ & 13 \cdot 1 \\ & 1 \cdot 0 \end{array}$	16·6 0·1 16·5	$     \begin{array}{r}       14 \cdot 8 \\       0 \cdot 1 \\       14 \cdot 9 \\       -0 \cdot 2     \end{array} $	11·0 11·0	7·2 7·3 -0·1	10.1	5·0 5·2 -0·2	12·9 0·9 11·6 0·4	3·2 0·9 2·2 0·1	$   \begin{array}{r}     69 \cdot 2 \\     2 \cdot 1 \\     66 \cdot 2 \\     0 \cdot 9   \end{array} $	45·4 2·1 42·7 0·6
France Private direct Private portfolio	$\begin{array}{ccc} & 14 \cdot 3 \\ & 0 \cdot 2 \\ & 14 \cdot 1 \end{array}$	8·2  8·2	$\frac{6 \cdot 2}{6 \cdot 2}$	$5.7 \\ -0.1 \\ 5.8$	$2 \cdot 2 \\ -0 \cdot 1 \\ 2 \cdot 3$	7·0 0·1 6·9	3·3 0·1 3·2	11.3	5·2 5·2	45·9 0·4 45·5	31·3 0·3 31·0
Italy Private direct Private portfolio	9·6 0·9 8·7	$4 \cdot 1 \\ 0 \cdot 7 \\ 3 \cdot 4$	$0.9 \\ 0.7 \\ 0.2$	8·0 0·1 7·9	5·5 0·1 5·4	4·6 4·6	2·5 — 2·5	9·4 0·1 9·3	$\begin{array}{c} 7 \cdot 9 \\ -0 \cdot 1 \\ 8 \cdot 0 \end{array}$	$37 \cdot 3$ $2 \cdot 2$ $35 \cdot 1$	$27.0 \\ 2.2 \\ 24.8$
Other	129·8 34·7 17·5 77·6	13.5 $4.9$ $1.2$ $7.4$	2·7 4·9 0·2 —2·4	14·7 4·0 2·3 8·4	0·4 4·0 1·3 -4·9	24·3 7·5 3·6 13·2	12·4 7·5 2·9 2·0	42·4 8·6 15·3 18·5	22·8 8·6 13·4 0·8	$217 \cdot 3$ $60 \cdot 4$ $42 \cdot 7$ $114 \cdot 2$	168·4 60·0 35·3 73·1
(i) International institutions	73.7	7.3	-1.3	7.7	-4.1	10.9	0.9	15.0	-2.0	106-6	67.2
(ii) Other	3.9	0.1	-1.1	0.7	-0.8	2.3	1.1	3.5	2.8	7.6	5.9
Total	806.1	108-9	81.2	141.2	104.4	118.9	73.8	232 · 1	160.7	1482.4	1230.6
Private direct	541.5	22.4	22.4	43.1	42.9	22.1	21.9	22.3	21.6	700-5	654.7
Private portfolio	153.0	44.9	28.2	58.8	38.9	49.6	22.3	121.7	83.0	437.1	325.4
Official portfolio	111.6	41.6	30.6	39.3	22.6	47.2	29.6	88-1	56.1	344.8	250.5

<sup>(</sup>a) Include valuation changes arising from the devaluation of the rupee in June 1966, which are excluded from figures for 1967 (b).

Industry-wise Investments

About one half of the outstanding foreign investments in the private sector was in the manufacturing field. Of the total net inflow of Rs. 56 crores in 1965-66 and Rs. 95 crores in 1966-67 into the manufacturing sector, Rs. 25 crores and Rs. 59 crores respectively were into chemicals and allied products; outstanding investments in the industry amounted to Rs. 184 crores as at the end of March 1967 accounting for about 29 per cent of the total investments in the manufacturing field. Other prominent industries during the period under review were transport equipment (Rs. 7 crores in 1965-66 and Rs. 16 crores in 1966-67), electrical goods and machinery (Rs. 8 crores

and Rs. 10 crores), metals and metal products (Rs. 6 crores during each year) and machine tools (Rs. 6 crores and Rs. 2 crores). The bulk of the net inflow was by way of portfolio capital, largely comprising suppliers' credits. The major share of the total inflow was into transport and and utilities (Rs. 17 crores in 1965-66 and Rs. 46 crores in 1966-67), followed by financial activities (Rs. 12 crores & Rs. 15 crores). Investments in trading activities showed a net outflow of about Rs. 2 crores in 1965-66 mainly because of disinvestment by branches engaged in foods, beverages etc. The large inflow of Rs. 19 crores in 1966-67 was mainly on account of creditor capital into trading companies, including the State Trading Corporation.

TABLE VI - Industry-wise Foreign Investments

(Rs. Crores)

	Industry	Out- standing invest- ments as at	196	3-64	196	64-65	196	5-66	196	36-67	inve as	standing stments at end ch 1967
		end March 1963	Gross inflow	Net inflow	Gross inflow	Net inflow	Gross inflow	Net inflow	Gross inflow	Net inflow	(a)	(b)
I.	Plantations	104.7	3.5	3.4	4.0	4.0	-2.0	-2.0	-0.7	-0.8	128.7	111.4
II.	Mining	15.9	0.5	-2.2	0.5	-1.9	-0.4	-2.0	1.6	0.3	11.5	10.1
III.	Petroleum	. 169.7	-0.8	$-2 \cdot 3$	17.3	15.6	-1.3	-5.4	-8.3	-12.7	206.6	164.9
IV.	Manufacturing	376.2	69.1	51.2	71.8	50.9	79.9	55.6	146.1	94.7	738 . 0	630 - 9
V.		139.6	36.6	31.1	47.6	35.8	42.7	27.6	93.4	79.2	397.6	313.3
Т	otal	806-1	108-9	81.2	141.2	104.4	118-9	73.8	232 · 1	160.7	1,482.4	1,230 · 6

(a) Include valuation changes arising from the devaluation of the rupee in June 1966, which are excluded from figures for 1967 (b).

### **OVERALL POSITION IN 1967-68**

(Preliminary Trends)

The preliminary data available at present indicate that the country's net debtor position increased further by Rs. 946 crores from Rs. 4,805 crores in March 1967 to Rs. 5,751 crores (excluding the effect of the devaluation of the pound sterling in November 1967) in March 1968.

The bulk of the net indebtedness was on account of the official sector; it increased from Rs. 3,618 crores in March 1967 to Rs. 4,485 crores in March 1968. The rise of Rs. 867 crores in 1967-68 was the net result of an increase in gross liabilities by Rs. 953 crores, mostly by way of loans, during the year, and a rise of Rs. 86 crores in assets. The bulk of the rise in assets was on account of reserves (excluding gold hoardings) which went up from Rs. 296 crores in March 1967 to Rs. 356 crores in March 1968. The improvement reflected an easing of the strain on the country's payments position during this year which was the result of larger non-project external assistance, debt-relief provided by some Consortium members, better

export performance, and net borrowings from the I.M.F.

The net capital inflow into the private sector amounted to Rs. 68 crores during the year; this was due to a rise in foreign long-term investments (Rs. 102 crores) and in short-term claims abroad (Rs. 34 crores). More than two-thirds of the net long-term capital inflow was by way of portfolio investments, mostly creditor capital, while the balance represented direct investments. The total outstanding net external indebtedness of the private sector amounted to Rs. 1,187 crores in March 1968. Gross liabilities amounted to Rs. 1,340 crores and assets amounted to Rs. 153 crores. Almost all of the liabilities represented long-term foreign investments while the bulk of the assets represented short-term claims abroad.

The net inflow of banking capital amounted to Rs. 13 crores during the year, being the net result of a fall in assets (Rs. 31 crores) as well in liabilities (Rs. 18 crores). The outstanding net external indebtedness of the banking sector increased to Rs. 52 crores by the end of March 1968. The insurance sector's net liabilities declined by about Rs. 2 crores to Rs. 35 crores at the end of March 1968 mainly because of reduction in L.I.C.'s liabilities.

### AUTOMOBILE INDUSTRY

THE historical background of automobile industry in India was given in the previous editions of the Directory.

### MANUFACTURERS

The country had eight approved manufacturers of automobiles and/or engines by the end of 1955:

- Hindustan Motors Ltd., Calcutta:—Hindustan Cars and Studebaker trucks now replaced by Bedford trucks (now styled Hindustan vehicles).
- Premier Automobiles Ltd., Bombay:—Fiat Cars and Dodge and/or Fargo trucks.
- 3. Standard Motor Products of India Ltd., Madras:
  Standard Cars.

- 4. Ashok-Leyland Ltd., Madras :- Leyland Trucks.
- Mahindra & Mahindra Ltd., Bombay:—Willy's jeeps (now styled as Kaiser jeeps).
- Tata Locomotive & Eng. Co. Ltd., Bombay:—Tata-Mercedes-Benz Trucks (now styled Tata vehicles).
- 7. Simpson & Co., Ltd., Madras :- Perkins Engines.
- Automobile Products of India Ltd., Bombay:— Meadows Engines.

The types and makes of vehicles to be developed were rationalised by the Government to only 3 passenger cars, 3 medium type trucks, one heavy truck, one jeep and one light truck in 1957.

Cars: Three manufacturers of cars:

1. Standard Ten. 2. Fiat 1100, 3. Hindustan Ambassador/Land Master.

Commercial Vehicles :-

- (a) One manufacturer of Light—1 ton: Dodge/Fargo (Petrol or Diesel).
- (b) Three manufacturers of Medium—3/5 tons: Dodge/Fargo (with petrol or diesel engine), 2. Mercedes Benz (now called Tata) with diesel engine, 3. Bedford (now called Hindustan).
- (c) One manufacturer of Heavy: Leyland Comet, Tiger/Titan. Diesel Engines (for medium commercial vehicles):—

Three manufacturers of: 1. Perkins—P/6, 2. Meadows—both suitable as original fitment for Dodge and Bedford vehicles, and 3. Tata Mercedes Benz.

Jeeps :-

One manufacturer of Kaiser Jeep (formerly called Willy's Jeep).

The range of products in the field of light commercial vehicles (trucks) was augmented in the year 1958 by the introduction of the Tempo Hanseat \( \frac{3}{4} \) ton three-wheeler commercial vehicle of Bajaj Tempo and, in the one-ton range, of the Jeep (truck), the Standard 20, the Tempo Viking and the Bedford in the years 1955, 1965, 1966 and 1967, respectively. Messrs. Ashok Leyland Ltd. introduced extra heavy duty trucks—the Beaver and the Hippo in the year 1966 and the Jumbo in the year 1968. Messrs. Hindustan Motors Ltd. and Messrs. The Premier Automobiles Ltd. introduced the Hindustan J6 and the Dodge/Fargo Rocket 7\( \frac{1}{2} \) ton trucks, respectively, in the year 1968. Messrs. Tata Engineering & Locomotive Co. Ltd. introduced 3-Axle 10-tonne dumper in the same year.

The Premier Automobiles Ltd. now manufacture Meadows engines and a percentage of their Dodge/Fargo diesel trucks is fitted with this make of engine. Simpson & Co. Ltd., Madras, commenced the manufacture of Perkins P6/354 diesel engine also from the year 1966. Messrs. Hindustan Motors have set up a plant in 1968 for the manufacture of Bedford diesel and petrol engines for fitment on Hindustan Commercial Vehicles.

Messrs. Standard Motor Products of India Ltd., Madras, now manufacture Standard Heralds instead of Standard '10.'

### MANUFACTURE IN DEFENCE ESTABLISHMENTS

The Ministry of Defence also entered the field of manufacture through an agreement with the M.A.N. of West Germany in Sept. 1958 for the manufacture of multi-fuel medium trucks by the ordnance factories. The rate of output was then reckoned at 2,000 per annum.

The 'Shaktiman' truck, as the truck has been called, has advantages over other trucks which the Army have been getting like increased payload by 30 per cent, multifuel engine and other special features which will make it a sturdy cross-country vehicle more suitable than other kinds for military purpose.

The manufacture of Shaktiman trucks in India commenced in June 1959. The manufacture of Nissan 1-ton trucks commenced in the year 1961-62 and the manufacture of Nissan petrol jeep type vehicles commenced in 1962-63.

Only 803 Shaktiman trucks were manufactured in 1961-62, the third year of production of these trucks, as against the planned output of 2,000 units. The indigenous content was of the order of 50 per cent against an anticipated indigenous content of 70 per cent in the third year. The total production of tracked vehicles in the Ordnance factories in India in the year 1962-63 was 2,733. Of these, 621 were 3-ton Shaktiman trucks, 1,046 Nissan 1-ton trucks and 1,066 Nissan (Jonga) Jeeps.

Early in 1964, a project report was drawn up for increasing the manufacture of Nissan jeep type vehicles and Nissan 1-ton trucks as these vehicles were expected to be useful for high altitude operation.

The target of production of Shaktiman trucks in the Ordnance factories was reduced from 2,000 to 1,500 per annum. Against this, the production during 1963-64 was 1,030 and during 1964-65, it was 1,094. The assembly of the truck is done at the gun-carriage factory. 1,350 trucks were produced in the year 1965-66 and the indigenous content at the end of the calendar year 1965 was reported to be 70 per cent.

Components and parts, both finished and semi-finished, for Shaktiman are imported from Germany whereas those for Nissan are imported from Japan. As the capacity of the Ordnance factories is utilised for vital items of high priority, Shaktiman and Nissan vehicles manufactured in the Defence Sector are having increasing quantum of components and parts produced in the civilian sector. 3,600 Nissan vehicles were produced in the year 1965-66 with an indigenous content of 38 per cent. 870 Shaktiman vehicles with an indigenous content of 77 per cent were produced during the year 1967-68. The indigenous content is now reported to have reached 80 per cent. The vehicle factory at Jabalpur for the manufacture of 6,000 shaktiman 3-ton trucks and 7,200 Nissan trucks and patrol vehicles per annum in due course, has been established and commenced work in mid-1969 in part of the buildings which are ready. The production schedule for the year 1969-70 for Nissan trucks and Nissan patrol vehicles is 200 and 100 Nos. per month respectively and their indigenous content in June 1969 was 45.46 per cent and 33.20 per cent respectively.

### DEVELOPMENT COUNCIL FOR AUTOMOBILES

In 1959, the Government of India constituted a Development Council for Automobiles, Automobile Ancillary Industries and Transport Vehicle Industries. The Council is reconstituted once in every two years. The reconstituted Council of 1963 was entrusted with the additional responsibility of looking after tractor and earthmoving equipment industries. Subsequently, the road roller industry was also brought within the purview of this Council. The Council was last reconstituted in April 1968 and the industries entrusted to its care include Automobiles, Automobile Ancillary Industries, Transport Vehicle Industries, Tractors, Earth-moving equipment, Internal Combustion Engines and Road Rollers.

The Development Council for Automobiles, etc., had estimated that the total investment in the industry by the end of the Third Plan period would be Rs. 130 crores, Rs. 100 crores by the Main Manufacturers and Rs. 30 crores by the Ancillary Sector. The Council had estimated the total value of production at the end of the Third Plan period at well over Rs. 260 crores.

The targets laid down in the Third Five Year Plan and the production achieved in the final year of the Third Five Year Plan are given below:

Type of motor vehicle		Capacity target 1965-66	Produc- tion 1965-66
Cars		30,000	25,029
Jeeps		10,000	10,385
Commercial Vehicles		60,000	35,437
Motorcycles, Scooters	and		
Three-wheelers		60,000	42,823 (excluding mopeds)
Ancillary Industries		Rs. 250 million	Rs. 450 million

There has been a considerable increase in the authorised capital, paid-up capital, number of units in the ancillary sector and investment in plant, machinery and buildings in the automobile and ancillary industries during the last five years.

A World Bank Mission toured India in 1963 and inspected the major establishments in the Automobile & Ancillary Industries with a view to deciding the nature and extent of assistance which the World Bank could render for the Automobile, Road Transport and Machine Building Industries. Based on the recommendations of this team, Automobile & Ancillary Industries were given assistance by the World Bank to the tune of 47 million dollars, i.e. about Rs. 23·4 crores. This assistance was confined to manufacture and maintenance of commercial vehicles i.e., to enable additional imports of (1) components and parts in c.k.d. and semi-finished form, (2) spare parts and (3) machinery by way of balancing equipment, all for commercial vehicles.

Similar assistance of a slightly higher order was made available by the World Bank in the second half of 1965 which was expected to go a long way to ensure a continuous flow of production till the end of 1965-66.

The World Bank Team toured India in November-December 1969 also and discussed with the representatives of the automobile and automobile ancillary industries various aspects of these industries.

Such surveys, on the spot studies for assessment of loan utilisation by representatives of the World Bank and assistance have now become a yearly feature.

The allocation of foreign exchange during the four years ending 1968-69 to the automobile and ancillary industries was as under:—

Rs. (in million) 1967-68 1968-69 1965-66 1966-67 Commercial Vehicles 230.07  $178 \cdot 54$ 127.94 188-14 Cars 29.75 26.00 22.69 40.00 Jeeps 15.60 16.50 3.20 11.06 Motorcycles, Scooters, Mopeds Threeand 22.34 Wheelers 23.99 38.77 37.88 Automobile Ancillaries 78.32 254 . 66  $72 \cdot 30$ 70.60

The production of different makes of commercial vehicles per annum at the end of the Third Five Year Plan was: Tata Mercedes Benz 17,500 Nos.; Dodge/Fargo 8,011 Nos.; Hindustan 4,000 Nos.; Ashok Leyland 4,050 Nos.; Jeep vehicles 21 Nos.; Tempo 1,587 Nos; Standard Twenty 268 Nos.

Messrs. Premier Automobiles Ltd. and Messrs. Hindustan Motors Ltd. have been granted licences to manufacture their own make of diesel engines while, at the same time, Messrs. Simpson & Co. Ltd. have been granted a licence to manufacture a medium commercial vehicle chassis of their choice. The two projects appear to be still in the negotiation or blue print stage. Messrs. Hindustan Motors Ltd. have commissioned a new plant for manufacture of engines for cars and commercial vehicles.

#### **INVESTMENTS AND CAPACITIES**

The total investment by the eight main vehicle manufacturers was about Rs. 100 crores in mid-1968. The total investment in the Two-cum-Three Wheeler Industries was about Rs. 10 crores at the time. The investment in the ancillary industry was about Rs. 55 crores in the middle of the year 1968. There are at present seven units engaged in the production of commercial vehicles having a capacity of 63,000 nos. per annum. The production is still short of the capacity. A number of difficulties are attributed for not achieving the target. These include the acute foreign exchange position due to which the industry was unable to secure adequate quantum of raw materials, particularly alloy, tool and special steels, and components, the shortage of certain categories of tyres, the stringent conditions prevailing in the money market and the crippling burden of taxation on road transport. This recessionary trend, which continued till the end of 1967, showed signs of abating in the year 1968.

#### PRODUCTION

The production figures of automobiles from 1961 onwards, year by year, are tabulated below:—

Produ	etion f	or the		Passenger Cars	Jeeps	Commer cial Vehicles
1961	10 to 16			21,662	7,052	26,214
1962	We Wh			23,326	7,597	26,894
1963				15,711	8,104	28,482
1964	MANAGEMENT N	111111111		23,227	10,391	33,157
1965		THE SECOND	170	24,790	10,483	37,408
1966				27,597	9,777	35,156
1967			100	33,344	5,561	31,454
1968				37,308	7,293	34,940
1969	ALL PA			35,185	7,838	35,242

Production of Diesel Engines for fitment on Dodge/ Fargo and Bedford Chassis is given hereunder:—

Marie				Perkins P6V	Meadows	Total
1961				9,761	60	9,821
1962		2200		7,653	822	8,475
- CONTRACTOR OF THE PARTY OF TH				7,993	958	8,951
1963				7,625	604	8,229
1964		11118-2011	* *	7.847	1,027	8,874
1965					639	7,350
1966				6,711*		
1967				2,873*	276	3,149
1968	Jan 1			2,431*	226	2,657
1969				2,666	222	2,888

G

<sup>\*</sup> Includes Perkins P6/354 diesel engines.

The trend of increase in the indigenous content of the vehicles can be gauged from the statement given below:-

		1962-63	1963-64 %	1964-65 %	1965-66 %	1966-67 %	1967-68	1968-69
Passenger Cars	SA N					A PERSONAL PROPERTY.	Maria Maria	3918
Ambassador	-	76.2	77.5	80.4	90.0	93.70	95.0	98.0
Fiat		56.0	64.0	74.0	88.0	95.0	98.0	99.25
Standard Herald		45.3	60 · 13	65.0	79.0	88.5	88.9	97.5
Commercial Vehicles								
Bedford	100	60.9	60.9	73.9	80.0	83 - 3	87.5	90.0
Dodge/Fargo		74.0	79.8	88.25	94.0	96.5	97.0	99.79
Tata Mercedes Benz		67.0	77.0	86.0	91.0	91.0	92.0	98.0
Leyland Comet		58.8	76-0	81.5	85.4	86.5	90.0	95.0
Tempo 3-Wheeler		68-0	75.0	86.4	88-5	92.0	95-0	95.0
Jeep		68.0	79.3	82.9	90.0	92.93	93.0	96.5

The indigenous content at the end of the year 1969 had reached over 97 per cent in the case of most of the vehicles and the indigenous content of diesel engines was over 95 per cent.

#### AD HOC COMMITTEE ON AUTOMOBILES

Satisfactory progress: In 1959, the Government appointed an Ad Hoc Committee to review the progress of the automobile industry, to recommend the measures to be taken to reduce the cost to the consumer of the different vehicles and to examine the feasibility of producing a low cost car within the price range of Rs. 5,000 to Rs. 7,000. The Report of the Committee was received by the Government in the beginning of 1960. Reviewing the progress made by the automobile industry since the Tariff Commission's enquiry in 1956, the Committee has remarked that the decision to grant protection to the industry was a sound one, that the achievement of self-sufficiency regarding transport vehicles was of great importance to the economy and that even in regard to passenger cars the consumer would have been far worse off, if in the present difficulties regarding foreign exchange there had been no domestic industry. The Committee considered the progress of the automobile industry satisfactory on the whole and particularly in the last few years. It also observed that most of the automobile vehicles were expected to reach 80 per cent or more of indigenous content before the end of 1961. In regard to the production of the low cost car, the Committee were

of the view that its production was feasible. To examine further the development of the low cost car, the Government appointed an Expert Committee, who submitted the report in May, 1961. After mature consideration by expert committees, finance bodies and the Planning Commission, the proposal to manufacture a low cost car was kept in abeyance during the Third Five Year Plan period. This proposal envisaged by the Ministry of Industrial Development & Company Affairs to be taken up in the Public Sector during the Fourth Five-Year Plan does not appear to be feasible according to statements made by spokesmen of the Ministry of Finance and the Planning Commission.

The subject of the low cost car or the "people's cheap car" as it is commonly called is raised at frequent intervals during question hours in the Lok Sabha. There are at present as many as 15 proposals for the manufacture of the small car under consideration of the Government of India.

# MOTOR CYCLES, SCOOTERS, THREE-WHEELER VEHICLES

There are now seven manufacturers, namely Messrs. Enfield for motor cycles and Automobile Products of India and Bajaj Auto Limited producing scooters and three-wheelers and four others which cover motor cycles, scooters, mopeds and three-wheelers. The Third Plan production target was 60,000.

Although the licensed capacity of the existing units (76,700) is now substantially in excess of the above target, the production achieved during 1961-69 unit-wise was as follows:—

	The state of the s								
	1961	1962	1963	1964	1965	1966	1967	1968	1969
Motor cycles: 150 cc 350 cc	8,636	7,640	9,456	13,858	21,364	25,040	23,338	29,411	34,477
Scooters: 150 cc Scooterette 48 cc	13,617	15,936	15,422	20,043	20,667	21,471	30,503	35,952	49,740
3-Wheelers: 150 cc 350 cc 400 cc }	1,267	1,426	1,701	2,493	1,884	1,255	3,995	4,317	5,072
TOTAL	23,520	25,002	26,579	36,394	43,915	47,766	57,836	69,680	89,289

The indigenous content as at the end of 1968-69 was as under:—

					P	er cent
Enfield		100.00		10.00		92
Jawa						87
Rajdoot			 			92
Lambrett	a	- 10.0				95
Vespa			 			95

The average indigenous content of the two- and three-wheeler vehicles as well was nearing 97 per cent by the end of 1969.

The main difficulty experienced by the existing units in the two- and three-wheeler sector in stepping up production despite higher installed capacity was the paucity of foreign exchange and, consequently, the difficulties in securing raw materials and components. The Industry was recently included among the priority industries for which import licences on a liberalised scale have been issued. Further Bajaj Tempo three-wheelers are classified as commercial vehicles.

Transport capacity could be augmented by using truck-trailer combination. With this end in view, the manufacture of trailers has been strongly encouraged. There are at present 12 units manufacturing trailers of 2, 4 and 8 wheel types having a carrying capacity of upto 10 tons. The production of trailers since 1963-64 has been as under (in Nos.): 1963-64: 3,364; 1964-65: 8,763; 1965-66: 8,873; 1966-67: 4,191; 1967-68: 3,495; 1968-69: 3,065.

The trailer manufacturing industry is dependent upon imports to a limited extent, the imports being confined to special and alloy steels not produced in the country.

#### AGRICULTURAL TRACTORS

The production of agricultural tractors, unitwise, in the year 1969 was as under:

	Horse- power	Nos.
Eicher Tractors (India) Ltd	27	354
Escorts Ltd	37	4,806
	27	1,920
	47	1,840
Hindustan Tractors Ltd	50	1,139
Transfer Tra	35	832
International Tractor Co. Ltd	35	4,533
Tractors & Farm Equipment Ltd.	35	3,344
		18,768

The annual demand for tractors and the tractor population in 1974 are estimated to be 68,000 Nos. and 2,71,000 Nos. respectively.

#### **ANCILLARIES**

Items like tyres, tubes, battery, rubber parts, upholstery material and paints were all obtained from indigenous sources when the industry switched over from assembly to manufacture. There are at present, more than 170 firms borne on the books of the D.G.T.D., besides 60 firms approximately engaged in the manufacture of storage batteries, leaf springs, H.T. bolts and nuts and tyres and tubes which are not classified exclusively as automobile ancillaries. Substantial expansions have also taken place in several units. The items which

still remain to be satisfactorily developed are magnetos and carburettors for the motor cycle and scooter industry and the steering gear and axle box for commercial vehicles. The production of steering gears, rear axles and carburettors have commenced in a limited way.

In addition to the licensed units, there are a number of ancillary establishments in the cottage and small scale industries sectors.

. By the end of 1967, capacity has been established for almost the entire range of ancillary items.

Some of the important ancillary items which have recorded significant progress in the year 1965 are wheels, brakes, radiators, steering wheels, tie rod ends, shock absorbers, clutch assemblies and brake linings, etc.

The production value of the ancillary industry since 1961–62 has been as follows (in Rs. crores): 1961–62: 17·8; 1962–63: 26·0; 1963–64: 37·4; 1964–65: 50·6; 1965–66: 61·4; 1966–67: 82·0; 1967–68: 84·2; 1968–69: 96; with the production in the small-scale sector, the total value of production in 1969 was expected to be over Rs. 115 crores. The Fourth Plan Working Group for Transport Equipment has estimated the value of production in 1973–74 to be of the order of Rs. 170 crores.

#### **AUTOMOBILE PRICES**

The relation between quantity of output and cost of production is more pronounced in the case of mass production industries like the automobile industry than in a majority of other industries. That is the main reason why the restricted volume of production has a direct impact on the cost of production in India. The ex-factory price of a vehicle in India is inclusive of direct and indirect taxes, particularly import duties and excise duties. The customer, in addition, is called upon to pay sales tax on the vehicles. The incidence of Government duties is so high that the purchaser of an automobile contributes anything from 30 to 40 per cent of the price paid by him towards the Government Exchequer.

The National Council of Applied Economic Research carried out a thorough study of the selling prices of the end products of the Automobile Industry and the incidence of taxes and duties in the prices to the consumer as in the first quarter of the year 1965. According to the NCAER, taxes and duties were as high as 42 to 49 per cent of the selling prices of vehicles, early in 1965.

The Indian automobile manufacturer is working under another serious handicap inasmuch as he is called upon to pay a high price for the capital plant and machinery installed in his works. In addition, he has to buy imported raw materials at a cost 50 per cent in excess of that paid by his counterpart in foreign countries.

#### **EMPLOYMENT**

The total employed directly in the automobile and ancillary manufacturing industries including those in the Small Scale Industry Sector is in the neighbourhood of 1,35,000. This figure, however, does not include the indirect employment this industry affords in various distribution, operation and maintenance centres, connected with it. It would not be an exaggeration to say that the indirect employment figure would be about 20 times the figure of labour directly employed by the industry.

The National Council of Applied Economic Research conducted an enquiry in 1960 on the employment potential in road transport in India and came to the conclusion that the total number of persons who find employment in the road transport industry in its broad sense is about 2.40 millions.

Considering the increase in the vehicle population of the country and the progress of automobile and allied industries in the last seven years, it can be safely reckoned that about 3.5 million persons find employment now in the road transport and allied industries.

# THE AUTOMOBILE INDUSTRY AND THE FOURTH PLAN

The Fourth Plan Working Group for Transport Equipment has recommended the following targets for the Fourth Five Year Plan to the Planning Commission:—

	1969-70	1970-71	1971-72	1972-73	1973-74
(a) Commercial Vehicles	48.000	56,000	65,000	75,000	85,000
(b) Cars	45,000	50,000	55,000	65,000	75,000
(c) Jeeps	11,000	12,000	13,000	14,000	15,000
(d) (i) Motorcycles, Scooters & Mopeds	1,00,000	1,25,000	1,50,000	1,75,000	2,00,000
(ii) Autorickshaws	6,000	7,000	8.000	9,000	10,000

The above estimates do not cover the automobile industry in the Defence Sector.

The value of automobile and ancillary production is estimated to be Rs. 3,950 million during the year 1969-70 and the corresponding value in the year 1973-74 to be Rs. 7,700 million.

#### Export of Automobiles and Ancillaries

A start has been made in the export of Indian manufactured vehicles and automobile ancillary products to neighbouring countries. Vehicles of Indian origin now run on the roads of other countries, viz. U.A.R., Aden, Ceylon, Viet Nam, Cambodia, Tibet, Sikkim, Bhutan, Bulgaria, Kenya, Sudan, U.K., Yugoslavia, etc.

The value of exports of vehicles stood at Rs. 2 million and Rs. 4 million in 1962–63 and 1963–64 respectively. The Rs. 11 million mark was touched in 1964–65 and the exports were well over Rs. 15 million in 1967-68. Sizeable orders from other countries for Tata Mercedes Benz, Ashok Leyland Comet vehicles, jeeps and some orders for Hindustan and Dodge/Fargo vehicles were placed with the respective manufacturers during the year 1968-69. In 1968-69, the exports of vehicles were Rs. 18 million, auto-engines Rs. 1·57 million and auto parts Rs. 31·60 million

The Fourth Plan Working Group for Transport Equipment has estimated that the exports of the automobile and ancillary industries which are Rs. 25 million at present

are expected to be in the region of Rs. 450 million by the end of the Fourth Plan.

# AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA

A research association for the Automobile Industry was registered in Bombay towards the end of the year 1966. It is understood that the research association is modelled on the lines of the Textile, Art Silk and Cement Manufacturers' Research Associations. The Governing Body of the Council of Scientific and Industrial Research have approved the Association, in principle, for receiving financial assistance from the C.S.I.R. The Association has formulated plan and programmes towards the end of the year 1968 for its immediate functioning. During the year 1969, efforts were under way for securing a suitable site in Maharashtra State for a Research Station and a Test Track and for the selection of a suitable person as Director of Research.

The Tariff Commission was requested by the Government of India to inquire into the prices of automobiles and automobile ancillaries and continuance of protection to the industry beyond 31st December, 1967. The Commission held public enquiries with the concerned automobile interests and went into the cost investigations of the automobile and automobile ancillary manufacturers' organisations. Their report was submitted to the Government in 1968.

Population of Motor Vehicles in different States of India as on 31st March 1968

States	Ave		Cars	Taxis	Jeeps	Buses	Lorries	Misc. Vehicles	2 & 3 Wheelers	
Andhra	***		28,011	1,278	4,510	5,710	18,158	5,909	27,178	90,754
Assam			9,514	429	3,153	2,370	12,502	5,399	1,852	35,219
Bihar			14,881	1,383	5,728	2,982	13,584	2,381	13,089	54,028
Gujarat			23,015	1,862	5,400	3,920	23,561	7,932	28,078	93,768
Haryana			2,156	390	440	987	5,023	451	5,127	14,574
Jammu & Kashmir			1,910	340	467	963	4,002	190	1,700	9,472
Kerala			24,782	6,271	2,389	4,889	9,399	1,710	10,514	60,454
Madhya Pradesh			12,900	630	5,870	4,710	17,510	5,780	16,810	64,210
Tamil Nadu			36,681	6,106	3,435	7,797	15,715	2,462	21,338	93,534
Maharashtra			75,160	10,987	8,018	8,532	49,856	13,850	44,582	210,985
Mysore			23,204	1,356	3,912	6,871	18,432	5,672	30,641	90,088
Orissa			4,150	732	4,361	1,357	9,604	2,082	5,055	27,341
Punjab			6,563	630	1,123	2,250	6,057	2,950	15,633	35,206
Rajasthan			14,293	290	1,458	6,583	13,355	7,302	9,817	53,098
Uttar Pradesh			16,175	710	4,857	7,580	22,158	3,476	20,507	75,463
West Bengal			81,308	6,980	9,310	8,254	46,514	7,980	22,518	182,864
Andaman & Nicobar		100	58	26	83	25	198	92	169	651
Delhi			29,571	3,611	2,181	1,718	5,944	4,808	41,856	89,699
Himachal Pradesh			171	143	387	552	1,699	331	483	3,766
Manipur			196		754	200	683	179	276	2,288
Tripura			193	103	711	246	981	239 0	187	2,660
Goa			3,800	467	79	641	4,023	288	4,814	14,112
Pondicherry			714		12	83	107	53	577	1,546
Other Union Territo	ries		170	4	29	9	271	856	103	1,442
TOTAL			409,576	44,628	68,667	79,229	299,846	82,372	322,904	1,307,222

### CHEMICAL & PHARMACEUTICAL INDUSTRY

FOR purposes of industrial production, chemicals fall easily into one of two major groups: (a) Heavy Chemicals; and (b) Fine Chemicals.

According to the latest data, there are over 680 factories with a productive capital of nearly Rs. 640 crores and providing employment for about 1.72 lakh workers, The exports of chemical products touched an all time record of Rs. 1,272 lakhs in 1968-69 against Rs. 936 lakhs in 1967-68.

#### SULPHURIC ACID

The installed capacity and production of sulphuric acid since 1964 are shown below:

('000 tonnes)

				The second second second second
Year	iguali		Capacity	Production
1964			1,012	679
1965			1,082	685
1966		1 22 1	1,328	674
1967			1.583	804
1968			1,663	973

The scheme for the mining of 2,40,000 tonnes of pyrites and the establishment of a 400 tonnes per day sulphuric acid plant at Sindri are under implementation. The total outlay on this project during 1966-67 and 1967-68 was Rs. 4.9 crores. During 1968-69, as against an outlay of Rs. 4.23 crores proposed by the Annual Plan for that year, the actual expenditure was Rs. 1.42 crores.

India imported sulphuric acid of the value of Rs. 1,21,690 in 1964-65, Rs. 47,867 in 1965-66, Rs. 37,295 in 1966-67 and Rs. 12,887 in 1967-68. There was no import of sulphuric acid during 1968-69.

Some exports are also taking place. India exported sulphuric acid worth Rs. 84,054 in 1964-65, Rs. 71,405 in 1965-66, Rs. 16,337 in 1966-67, Rs. 38,809 in 1967-68 and Rs. 2,30,872 in 1968-69.

#### **ALKALI INDUSTRY**

The alkali industry comprises the manufacture of soda ash and caustic soda, sodium bicarbonate, bleaching powder, benzene hexachloride, liquid chlorine and zinc chloride.

At the beginning of the Third Plan, production of soda ash was 1,48,000 tonnes. The estimated actual production in 1968-69 was 4,00,000 tonnes. The target for 1969-70 was 4,20,000 tonnes.

The trend of production of soda ash in tonnes is as under:—

1964: 2,82,408; 1965: 3,21,972; 1966: 3,49,608; 1967: 3,55,836; 1968; 3,98,628.

The figures of imports of soda ash during the last few years are given below:

Year	NE SKY	Q	V
1964-65	 	 33-47	60.01
1965-66		 35.60	78-65
1966-67	 200.0	1.03	4.59
1967-68	 Trans.	 4.05	13.55

Q: Quantity in million kilograms. V: Value in Rs. lakhs.

Imports during 1968-69 were negligible.

In 1968, the production in tonnes of hydrogen peroxide was 3,032 as against 2,676 in the previous year. During

1968-69, India imported 10,110 kilograms of hydrogen peroxide valued at Rs. 20,833. U.S.A. and Japan were the principal suppliers.

Caustic Soda.—There were at the end of 1968, 28 units manufacturing caustic soda.

Actual indigenous production of caustic soda and the associated chemicals has been as under:—

					(tonnes)	
Year	Lan Lan		Caustic Soda	Liquid chlorine	Bleaching powder	
1964			1,84,020	50,580	7,932	
1965		**	2,14,956	51,012	7,356	
1966			2,30,688	63,048	10.812	
1967			2,51,376	78,132	9,252	
1968			3,15,992	1,00,416	10,508	

Imports of caustic soda were:  $1964-65:67\cdot12$  million kgs.  $1965-66:74\cdot21$  million kgs.;  $1966-67:14\cdot16$  million kgs.;  $1967-68:8\cdot07$  million kgs. and  $1968-69:0\cdot79$  million kgs.

During the Third Five Year Plan, the installed capacity of the industry rose from 1,26,000 tonnes in 1960-61 to 2,77,000 tonnes in 1965-66, and actual production from 99,000 tonnes to 2,18,000 tonnes. The estimated installed capacity and production in 1968-69 were 4,00,000 and 3,10,000 tonnes respectively.

#### MISCELLANEOUS CHEMICALS

The progress of production of important miscellaneous chemicals during the period 1965 to 1968 is given below.

(metric tons)

			Luncon	
Name of product	1965	1966	1967	1968
Bichromates	6,852	6,876	6,936	7,872
Copper Sulphate	3,252	3,600	2,664	1,797
Sodium Sulphide	3,432	3,720	3,660	1,465*
Hydrogen Peroxide	2,472	2,784	2,676	3,032
Potassium Chlorate	3,804	4,104	4,104	4,741
Sodium Bicarbonate	12,804	13,704	19,680	15,064
Hydrochloric Acid	32,268	29,016	33,084	41,375*
Nitric Acid	15,348	16,836	14,376	17,857
Sodium Sulphate	36,708	42,780	46,428	44,140
Sodium Aluminate	702	728	872	639
Nickel Sulphate	464	463	559	360*

\* Data for 11 months of 1968 only.

In 1968 installed capacity and production in tonnes of Sodium Hydrosulphite stood at 7,812 and 5,703 respectively.

#### **FERTILISERS**

#### Nitrogenous Fertilisers

The following table shows the details of installed capacity of nitrogenous fertilisers as on 30-9-1969.

			(met	tric tons)
Ammonium sulphate	T	-		203,720
Ammonium sulphate nitra				31,700
Calcium ammonium nitrat	е	**	**	200,000 515,110
Urea Ammonium chloride				16,410
	use Tueso			
	Frand	Total		966,940

Source: Fertiliser Statistics, 1968-69.

The year-wise capacity and production of nitrogenous fertilisers are as under:

		n		

Year				Capacity	Production
1964		Layel.		 193,968	125,796
1965	×1.0		44.14	 399,828	243,000
1966				 503,880	255,756
1967	NO SECTION		N.	676,176	328,812
1968				 794,781	456,085

Imports of nitrogenous fertilisers amounted to 14,11,470 tonnes in 1966-67, 15,54,601 tonnes in 1967-68 and 19,52,269 tonnes in 1968-69.

For details about public sector projects for the development of fertilizers see "Fertilizer Corporation of India Ltd." and "Fertilizers and Chemicals Travancore Ltd."

The following table shows the year-wise consumption of nitrogenous fertilisers:

('000 tonnes)

Year	Co	Consumption			
1964-65	ON THE REAL PROPERTY.		 1	1	434
1965-66			14.		547
1966-67	TOTAL AND THE	A-R			839
1967-68			 		1,040
1968-69 (es	stim.)				1,210

#### PHOSPHATIC FERTILISERS

The progress in the manufacture of phosphatic fertilisers is given below:

(Figures in tonnes of single superphosphate)

Year	Year		100		Capacity	Production
1964			A. or	BU SIN	1,41,672	1,17,948
1965	100	20,771	OH WAS I	F. 145	1,47,480	1,14,924
1966	Towns 1				2,30,352	1,36,968
1967	4.16		10		2,80,812	1,81,812
1968		4.			2,95,507	1,82,440

The capacity of phosphatic fertiliser in India in 1968-69 was 4,21,000 tonnes. It was proposed to raise it to 4,29,000 tonnes in 1969-70.

Imported raw materials, rock phosphate and sulphur are used for the manufacture of single superphosphate. The following are the quantities and value of imported rock phosphate during the last few years:

Year		(	Quantity '000 tonnes)	Value (Rs. crores)	
1964-65		 Depart	426.3	3.74	
1965-66			565.7	5.56	
1966-67		 	857-1	13.17	
1967-68		 	604.0	9.33	
1968-69	711	 	845-2	12.45	

Potassic Fertilisers: Potassic fertilisers are produced indigenously in the small scale sector and the annual production is estimated to be around 2,000 tons as muriate of potash.

#### Imports of Potassic Fertilisers 1967-68 and 1968-69

(July - June)

(tonnes)

					Muriate of P	otash		
Country				1967-68	E GET HALL ST		1968-69	
64 50			(60% K <sub>2</sub> O)	(50% K <sub>2</sub> O)	(40% K <sub>2</sub> O)	(60% K <sub>2</sub> O)	(50% K <sub>2</sub> O)	(40% K <sub>2</sub> 0)
Canada		18.00	74,603			44,809		White State
France			27,527				_	-
East Germany	-4		1,04,296	17,617		1,61,076	1	
West Germany		Bur.	30,006		MINISTER STATE			9,612
Norway		UIS U	145					-
U. K			99,950					-
U. S. A		0	78,757					_
U. S. S. R.			3,573			31,657		
Total			4,18,857	17,617		2,37,542		9,612

Note: During 1967-68 and 1968-69, there were no imports of sulphate of Potash.

Source: Fertiliser Statistics 1968-69.

The production of ammonium sulphate: 1965: 88,020 tonnes; 1966: 85,212 tonnes, 1967: 81,816 tonnes, and 1968: 1,09,903 tonnes.

Though the production of nitrogenous fertilisers has been stepped up in recent years it has been necessary to import large quantities of nitrogenous fertilisers because of increasing demand. India imported nitrogenous fertilisers worth Rs. 20·5 crores in 1964–65; Rs. 31·80 crores in 1965–66; Rs. 68·97 crores in 1966–67, Rs. 75·93 crores in 1967–68 and Rs. 93·53 crores in 1968–69.

Imports of ammonium sulphate were: 1964-65: 453,140 tonnes; 1965-66: 839,860 tonnes; 1966-67: 998,899 tonnes; 1967-68: 879,648 tonnes; and 1968-69: 13,00,642 tonnes.

OI 1	Production							
Chemical -	1966	1967	1968	Main uses				
Acetic acid (thousand kgs.)	9,000	9,600	8,403*	Rayon, white lead, lead, acetates, dyeing rub- ber.				
Acetone (tonnes)	1,524	912	3,252	Solvent ex- plosives				
Benzene (thou- sand litres)	21,038	21,999	22,286*	Solvent.				

<sup>\*</sup> Production for January-November period of 1968 only.

#### FINE CHEMICALS

The term "fine chemicals" is applied usually to substances such as photographic materials, drugs and pharmaceutical products, paints, pigments and varnishes, and dyestuffs. All the figures given below are in tons per annum except where otherwise stated.

Production of bromide and bromine respectively in '000 kgs. for the latest four years is as under: 1965:12; 192; 1966: 84; 156; 1967: 36; 156; 1968: 129; 235.

Photographic Materials — The basic chemical required for the photographic industry are: (i) gelatin, silver halides and sensitizers in the coating of film, plate and paper base, and (ii) hypo-sodium sulphate metal, hydroquinone and chrome alum in the processing stages.

Hindustan Photo Films Manufacturing Co., Ltd., was incorporated in Nov. 1960, with an authorized capital of Rupees 5.5 crores (now being raised to Rs. 5.82 crores) to implement the project for the manufacture of raw films photographic films, X-ray films and other sensitized materials in collaboration with Messrs. Bauchet & Co., France. The total cost of the project is Rs. 11.6 crores. The factory has now commenced production.

Production during January-October 1968 was 0.88 million sq metres valued at Rs. 1.4 crores as aginst 0.31 million sq. metres valued at Rs. 44 lakhs during the corresponding period of last year. Presently, the factory produces cine positive films, photographic bromide paper, medical X-ray film and roll film.

Trial production of cine sound and document paper is in progress and development work of cine negative, graphic arts, aerial films, etc. will be taken up in due course.

#### PAINTS AND VARNISHES

There are at least 200 factories manufacturing paints and varnishes, but nearly 150 of them are very small in size. The bigger ones are concentrated in Bombay and Calcutta.

The annual national loss due to corrosion of iron and steel is estimated at Rs. 60 crores.

A wide variety of products including different kinds of paints, varnishes, enamels, lacquers, and other types of surface coating materials are manufactured by the industry which uses mainly indigenous and some imported raw materials. The important raw materials used are zinc oxide, white lead, titanium dioxide, red lead, yellow and green chrome pigments, carbon black linseed oil, etc. The industry contributes substantially to the national exchequer in the form of taxes, exise duty, customs duty, etc.

The capacity of the paints, varnishes and enamels industry has recently been reassessed by the Development Wing of the Ministry of Industry at about 85,000 tons. The State-wise distribution of the reassessed capacity is as follows: the first figure indicates the number of factories and the second the annual capacity in tons: Maharashtra 23; 34,000; West Bengal 19; 39,500; Uttar Pradesh 5; 8,100; Tamil Nadu 3; 2,000; Delhi 2; 1,000; Andhra Pradesh 1; 300; Total 53; 84,900.

The production of paints, varnishes, zinc oxide, white lead, red lead and nitrocellulose lacquers including ancillaries from 1965 onwards is given below:

Year				Paints & Varnishes	White Lead†	Zine Oxide	Red Lead	Nitrocel- lulose Lacquers
				(a)	(b)	(a)	(a)	(c)
1965			EN CONTRACTOR	5,889	643	785	193	179
1966	7.10		N. HIERIE	5,655	481	484	152	173
1967	200	17.00	N MESTER	6,625	602	625	286	162
1968				5,464	403	598	262	159

Note: Figures are monthly averages.

(a) Thousand kg.

(b) Tonnes.

(c) Thousand Litres.

† Annual production.

There has been a marked improvement in exports of Indian paints to Middle East and African countries. Exports of pigments, paints, varnishes and related materials amounted to Rs. 165 lakhs in 1967–68 and Rs. 239 lakhs in 1968–69.

#### DRUGS AND PHARMACEUTICALS

Drugs and pharmaceuticals cover a large variety of products from simple extracts of vegetable drugs and glandular preparations to highly complex synthetic drugs and antibiotics.

There are nearly 2,800 production units producing pharmaceuticals and drugs, licensed under the Drugs Act. Out of these, only 125 large-scale units are licensed under the Industrial Development and Regulation Act.

The following are the principal fields in which progress has been remarkable: Penicillin, Streptomycin and Dihydrostreptomycin, Tetracycline, Chloramphenicol, synthetic drugs, vitamins, synthetic hormones, glandular products and vaccines and sera.

Most manufacturers in the organised sector have collaboration arrangements with well-known pharmaceu-

tical firms in England, America, Switzerland, Germany, Italy, the U.S.S.R., etc.

The total capital investment in this sector has sharply risen from Rs. 560 million in 1962 to ever Rs. 1,500 million in 1967. These units employ about 40,000 workers, out of whom about 4,000 are technically trained.

Output of drugs and pharmaceuticals in 1968–69 was Rs. 235 crores as against Rs. 210 crores in 1967–68. During 1969-70, the output is likely to be of the order of Rs. 260 crores. In India the entire research expenditure on health problem is estimated at around Rs. 30 million including the governmental and private expenditure. Of this, a total of about Rs. 12 to 15 million is spent on research in the private and the public sectors.

#### Development in the Public Sector

See "Hindustan Antibiotics Ltd.," "Hindustan Insecticides Ltd.," Indian "Drugs and Pharmaceuticals Ltd.," and "Drug Research Laboratories" for more information on drugs.

Total exports of medical and pharmaceutical products in 1966-67 and 1967-68 were Rs. 3·77 crores and Rs. 3·33 crores respectively. Exports in 1968-69 amounted to Rs. 4 crores.

Production: The output of Penicillin and DDT in 1967 and 1968 are given below:

Year	mi	D.D.T. (tonnes)	
1967		122	3,130
1968 (estimated)	 	113	3,200

Monthly average production of drugs during 1966, 1967 and 1968 is given below:

		Unit	1966	1967	1968*
1.	Liver Extract	South State			
		'000 cc. '000 kg.	3,788·1 16·0	3,053 · 1	3,065 16·4
2.	Anti-dysentery drugs	kg.	7,348.0	6,441.0	6,509
3.	Nikethamide	kg.	553.0	379.0	235
4.	I. N. H	'000 kg.	4.7	3.3	2.7
5.	P. A. S	'000 kg.	26.8	20.0	22.0
6.	Vitamin A	MMU	1.7	2.1	2.5

Monthly average production of all drugs except vitamin 'A' based on production during January-November period for 1958.

The following table shows the imports of drugs and pharmaceuticals during 1967-68 and 1968-69.

Imports of Drugs and Pharmaceuticals 1967-68 and 1968-69.

			Rs. 1	akhs
	Item		1967-68	1968-69
1.	Vitamins, Provitamins,			
	etc		231.03	145.59
2.	Antibiotics			
	(a) Aureomycin		1.97	1.32
	(b) Chloromycetin .		48.83	25.78
	(c) Penicillin		70.76	12.16
	(d) Streptomycin .		155.36	103.51
	(e) Terramycin		1.43	8.12
			70.48	84.23
3.	Hormones		42.57	39-11
4.	Glycosides, sera Vaccines	s.		
	etc		34.88	33.13
5.	Medicaments		1.038 · 48	1,214.36
6.	TO 1 0 T		21.94	55.09
7.	Opium alkaloides, Cocaine			
	O M ·		33.19	27.28
	Total		1,751 · 92	1,749.68

The exports of pharmaceutical products amounted to Rs. 506.9 lakhs in 1968-69.

D.D.T. and B.H.C. are the two of the most important insecticides. Hindustan Insecticides Ltd., a public sector undertaking went into production in March 1955.

The annual capacity and production of D.D.T. and B.H.C. are set out in the following table:

('000 tonnes)

Year							D	D.T.	B.H.C.	
131							Capacity	Production	Capacity	Production
	n wa	to Gay		THE PERSON NAMED IN			(1)	(2)	(3)	(4)
1966-67	 3			 	 	 	2.8	3.1	9.2	8.1
1967-68 1968-69	 		• •	 	 · ·	 	2.8	3·1 3·3	11·8 26·5	8·7 12·0

### MINES AND MINERALS

THE total value\* of mineral production in India during 1968 was Rs. 3,703 million as against Rs. 3,251 million in the previous year. Fuels constituting the leading group accounted for Rs. 2,985 million or 80·6 per cent of the total value of mineral production during 1968. The share of metallic minerals was Rs. 442 million and that of non-metallic minerals Rs. 276 million accounting for 11·9 per cent and 7·5 per cent respectively.

In terms of value of output during 1968 next to fuels were iron ore (Rs. 209 million), limestone (Rs. 172 million), manganese ore (Rs. 99 million), gold (Rs. 65 million), copper ore (Rs. 33 million), mica (Rs. 20 million) and dolomite (Rs. 18 million).

The quantity index of mineral production (base 1960 = 100) stood at 143·0 during 1968 as against 134·6 in the previous year. Coal mining constitutes as much as 69 per cent of the over all mining activity in the country followed by metal mining with 19 per cent and non-metallic mining 12 per cent. The index of coal mining registered 144·4 in 1968 in comparison with 136·9 in 1967. Metal mining index during 1968 was 134·9 as against 126·2 in the pre-

vious year. The index of non-metallic registered 147·6 in 1968 compared with 135·0 in 1967.

#### STATE-WISE ANALYSIS

Bihar occupied the leading position accounting for 32·33 per cent of the total value of mineral production in 1968 followed by West Bengal with 18·23 per cent and Madhya Pradesh with 13·32 per cent. The supremacy of these States is primarily due to the fact that these are the principal producers of coal in India accounting respectively for 45 per cent, 28 per cent and 16 per cent of the all-India output during 1968.

The production of iron ore in Goa during 1968 was 6.86 million tonnes registering a marginal increase of 2 per cent compared with the previous year. Output of manganese ore during 1968 at 51,000 tonnes indicated a rise of 20 per cent compared with 1967.

#### **OVERSEAS TRADE**

The value of export of ores and minerals from India (including Goa) during the year 1968 totalled Rs. 1,622

<sup>•</sup> Excluding (1) common salt, (2) minor minerals and (3) minerals declared as prescribed substances under the Atomic Energy Act, 1962 and, also the value of mineral production from Goa. The figures for July-December, 1968 exclude the value of natural gas (not available, negligible).

Note: The estimated value of production of minerals excluding atomic minerals and salt and of minor minerals for which data are not available was Rs. 3,991 million during 1969.

million as against Rs. 1,387 million in the preceding year showing an increase of about 17 per cent. Iron ore was the leading commodity accounting for Rs. 865 million or 53·3 per cent of the total value of mineral exports during 1968, followed by diamond of gem variety Rs. 242 million or 15 per cent, precious and semiprecious stones Rs. 147 million or 7·4 per cent, coal Rs. 26 million or 1·2 per cent.

In terms of quantity, the exports of iron ore during 1968 increased by 15·2 per cent to 15,635,000 tonnes, manganese ore by 7·3 per cent to 1,189,111 tonnes, mica (all varieties) by 4·7 per cent to 22,172 tonnes, coal 87·6 per cent to 469,000 tonnes and kyanite by 24·1 per cent to 50,465 tonnes compared to the exports during 1967. The exports of chromite at 108,822 tonnes showed a substantial increase of 40·9 per cent from that of 1967. Among other important minerals the exports of bauxite, ilmenite, salt and steatite increased while there was a fall in the case of barytes.

The foreign exchange earned by the exports of metals and alloys during 1968 amounted to Rs. 978 million registering an increase of Rs. 333 million or 51·8 per cent compared to the preceding year. Iron and steel accounted for 591 million or 60·5 per cent of the total value of metals exported during 1968, followed by pig and cast iron (Rs. 208 million or 21·3 per cent), aluminium (Rs. 69 million or 7 per cent) and ferro-alloys (Rs. 47 million or 4·8 per cent). The value of exports of iron and steel rose by 34·8 per cent to Rs. 591 million, pig and cast iron by 38·5 per cent to Rs. 208 million and that of aluminium by five fold to Rs. 69 million compared to 1967. The value of exports of silver and copper also increased to Rs. 33 million and Rs. 26 million in 1968 as compared to Rs. 5 million and Rs. 10 million respectively in 1967.

The value of imports of minerals into India during 1968, totalled Rs. 1,213 million as compared to Rs. 1,241 million during 1967. Petroleum was the leading commodity accounting for Rs. 558 million or 46 per cent of the total value of minerals imported during 1968, followed by sulphur Rs. 215 million or about 18 per cent, diamond of gem variety Rs. 163 million or 13·4 per cent, rock phosphate Rs. 125 million or 10·3 per cent, asbestos Rs. 48 million or 4 per cent.

The value of imports of metals and alloys declined sharply by 25 per cent to Rs. 1,709 million in 1968 as compared to Rs. 2,276 million in 1967. Iron and Steel accounted for Rs. 838 million or 49 per cent of the total value of imports of metals during 1968, followed by copper Rs. 326 million or 19·1 per cent, zinc Rs. 219 million or 12·8 per cent, tin Rs. 99 million or 5·8 per cent, lead Rs. 67 million or 3·9 per cent, aluminium Rs. 60 million or 3·5 per cent and nickel Rs. 44 million or 2·6 per cent. The value of iron and steel in 1968 declined sharply by Rs. 306 million, aluminium by Rs. 164 million, copper by Rs. 121 million, tin by Rs. 13 million and lead by Rs. 5 million as compared to 1967. The value of the imports of zinc and ferro-alloys, however, increased by Rs. 49 million and Rs. 7 million respectively during 1968 compared to 1967.

The value of mineral production 1, 2, (Rs. '000) and percentage to the total respectively in each State for 1968 are as follows:

Bihar 1,197,099; 32·33; West Bengal 675,227; 18·23; Madhya Pradesh 506,464; 13·32; Gujarat 322,927; 8·72; Assam 288,132; 7·78; Orissa 182,043; 4·91; Andhra Pradesh 172,120; 4·64; Tamil Nadu 111,902; 3·02; Mysore 107,494; 2·90; Maharashtra 85,143; 2·29; Rajsthan 38,892; 1·05; Uttar Pradesh 5,462; 0·12; Kerala 4,317; 0·11; Haryana 3,902; 0·10; Himachal

Pradesh 738; —; Jammu & Kashmir 589; —; Delhi 274; —; Punjab 3; —; Total 3,702,728; 99·52.

- 1. Excluding the value of minor minerals and minerals declared as prescribed substances under the Atomic Energy Act, 1962 and also the value of output from the Union Territory of Goa, Daman and Diu.
- 2. The figures for July-December, 1968 also exclude the Value of natural gas.

#### PETROLEUM

The oil bearing regions are the tertiary formations primarily in the States of Assam and Gujarat. Oil and gas seepages have also been reported in some of the tertiary formations of Andhra Pradesh, Tamil Nadu, Punjab and Union Territories of Tripura, Naga Hills, Tuensang area in NEFA etc. According to the Ministry of Petroleum and Chemicals the total reserves of crude oil at the end of 1967 were 154 million tonnes (Assam 88 and Gujarat 66). The reserve of natural gas has been estimated at 69 million cubic metres (Assam 44 mill. cubic metres and Gujarat 25 mill. cubic metres).

The indigenous production of 5.67 million tonnes of crude petroleum is about 39 per cent of the total quantity refined in the country during 1967 as against the same percentage in the previous year. The exploration programme for search of petroleum has been considerably stepped up in all possible areas to meet the deficiency.

The trend in production and imports of petroleum (crude) for the last three years is given below.

			Import				
	Year	Production in '000 tonnes	Quantity in '000 tonnes	Value (Rs. '000)			
1966		 4,647	5,722	383,628			
1967		 5,667	7,305	579,469			
1968		 5,853	6,130	557,600			

The total crude throughput of all refineries during 1969 was 17.51 million tonnes yielding 16.19 million tonnes of products. The crude throughput of the public sector refineries alone amounted to 9.5 million tonnes, i.e. 54.4 per cent of the total crude throughput.

#### BAUXITE

India can be considered to be self-sufficient in respect of bauxite, which is the chief raw material for aluminium metal. A sizeable quantity also finds outlet in export market after meeting the indigenous requirements. According to the sub-group on Aluminium and Magnesium of the Planning group on non-ferrous metals the all-India reserves of bauxite of all grades are placed at 160 million tonnes of which 67 million tonnes are of high grade analysing 50 per cent and above  $H_2$   $O_3$ .

Yearly production and export of bauxite from 1964-68 in thousand tonnes: 1964: 593; 94; 1965: 707; 63; 1966: 750; 78; 1967: 801; 61; 1968: 936; 99.

During 1968, five aluminium smelters, all in the private sector with a total installed capacity of 117, 670 tonnes per annum located one each at Hirakud (Orissa), Alwaye (Kerala), Jayakanagar (West Bengal), Renukoot (U. P.) and Mettur (Tamil Nadu) produced a total of 120,100 tonnes of aluminium metal. Indian Aluminium Co's new smelter at Belgaum of 30,000 tonnes installed capacity is coming up shortly. Besides, two units under the public sector one each at Koyna, Maharashtra (50,000 tonnes capacity) and Korba, Madhya Pradesh (1,00,000 tonnes capacity) are proposed to be set up.

#### **COAL & LIGNITE**

The most important coal fields are Raniganj in West Bengal and Jharia and Bokaro in Bihar. The best cooking coal comes from Giridih, Jharia and Raniganj. Other States in which coal is found are Madhya Pradesh, Orissa, Andhra Pradesh, Tamil Nadu, Maharashtra, Assam, Rajasthan and Kashmir.

The proved and inferred reserves of all types of coal are estimated at 16,796 and 130,782 million tonnes respectively by the Geological Survey of India.

The output of coal in million tonnes for the years 1964 to 1968: 1964 (62·44); 1965 (67·16); 1966 (67·97); 1967 (68·22); 1968 (70·81).

Value of production of coal during 1968 was Rs. 2,335 million.

India exported 28,732 tonnes of coke valued at Rs.  $2\cdot29$  million in 1968 relative to 6,216 tonnes valued at Rs.  $1\cdot04$  million in 1967. Coke exports to Burma which is the chief buyer, amounted to 5,749 tonnes valued at Rs. 1,005,000 in 1967. Coal exports rose from 250,000 tonnes valued at Rs.  $15\cdot11$  million in 1967 to 469,000 tonnes valued at Rs.  $25\cdot55$  million in 1968. Burma and Ceylon were the chief importers.

The multipurpose 'South Arcot Lignite Project' at Neyveli is planned to increase the mine output to 6 million tonnes per annum. During 1968, 4·12 million tonnes of lignite was mined in Neyveli.

Lignite also occurs at Palana and Khari in Bikaner District, Rajasthan, Nichahom in Jammu & Kashmir, Kutch and Broach Districts in Gujarat. During 1968, the entire output of lignite was from Madras, except 5,056 tonnes from Rajasthan.

During the year 1967 altogether 9 washeries with a rated capacity of 13.57 million tonnes per annum have washed a total of 6.81 million tennes of coal.

#### IRON ORE

The production of iron-ore during 1968 totalled 20-56 million tonnes (excl. Goa) as against 19-01 million tonnes in the previous year. The output during January to Sept. 1969 was 22,38,000 tonnes.

India is one among the few countries endowed with large reserves of good quality iron ores which can meet the growing demands of the indigenous iron and steel industry and also sustain considerable export trade.

The production from Goa during 1968 was 6.86 million tonnes as against 6.75 million tonnes during 1967.

Among the producing States (excluding Goa) Orissa and Bihar each accounted for 28 per cent of the all India output in 1968 followed closely by Madhya Pradesh with 27 per cent.

Among the minerals exported from India, iron ore is the largest foreign exchange earner contributing 52 per cent of the total value of mineral exports during 1967. Japan contributed to be the leading buyer of Indian iron ore accounting for 81 per cent of the total exports in 1967 from India. The quantity of iron exported in 1968 was 13.66 million tonnes valued at Rs. 864.91 million as compared with 13.57 million tonnes valued at Rs. 726.78 million in 1967.

Production of iron-ore (excluding Goa) in thousand tonnes and value in thousand rupees respectively in brackets during 1965 to 1968 are: 1965 (17,154; 148,820); 1966 (20,084; 176,232); 1967 (19,068; 187,915); 1968 (20,577; 208,689). The production of iron ore in Goa during

1965-68 in thousand tonnes are 1965: 6,584; 1966: 6,718; 1967: 6,751; 1968: 6,856.

Export trade of iron-ore in thousand tonnes during 1965-68 and value in thousand rupees respectively are: 1965: 11,264; 3,95,078; 1966: 13,658; 586,397; 1967: 13,574; 7,26,778; 1968: 15,635; 8,64,910.

#### MANGANESE ORE

Extensive deposits of manganese ore occur in Madhya Pradesh, Orissa, Andhra Pradesh, Maharashtra, Mysore, Bihar, and Rajasthan.

The total reserves of manganese ore in the country according to the latest estimate made by the Geological Survey of India, are now placed at about 184 million tonnes including Goa. It is estimated that the deposits in the main belt of Nagpur and Bhandara in Maharashtra and Balaghat and Chhindwara in Madhya Pradesh alone contain reserves of the order of 144 million tonnes of which 48 million tonnes are of metallurgical grade. A major part of the output is exported at present.

Yearly output and exports †respectively of manganese ore in thousand tonnes from 1965—1968 are: 1965: 1,536; 1,147; 1966: 1,622; 1,249; 1967: 1,574; 1,108 & 1968: 1,551; 1,189. The production of manganese ore in 1968 in Goa including ferruginous manganese ore was 51,414 tonnes.

The export of manganese ore is now canalised through the Minerals and Metals Trading Corporation of India Ltd. The Manganese Ore India Ltd. is also allowed to export the ores produced by it or acquired by it in the course of its normal business operation.

There is only one ferro-manganese plant under public sector at Bhadravati in Mysore and six in the private sector, two each in Maharashtra and Orissa and one each in Andhra Pradesh and Mysore.

During 1968 the total production of ferro-manganess was 145,810 tonnes as against 130,467 tonnes in the previous year.

#### CRUDE PETROLEUM

The production of crude petroleum in 1969, was 6.7 million tonnes — a phenomenal growth of about 15 times of what it was in 1960. Similarly, natural gas, the production of which is expected to have reached 722 million cubic metres in 1969, grew by about five times compared to 1960. Crude petroleum accounts for about 46 per cent of the total value of current imports.

#### LIMESTONE

Limestone is one of the most important industrial minerals required in the manufacture of cement, iron and steel, ferro-alloys, chemicals (for soda ash, caustic soda, bleaching powder, calcium carbide, etc.), fertilizer (calcium ammonium nitrate) and lime.

The cement grade limestone deposits are estimated at about 18,583 million tonnes.

The production of limestone in thousand tonnes and value in thousand rupees respectively in brackets during 1965-1968 are: 1965 (19,957; 126,359); 1966 (19,831; 142,364); 1967 (19,571; 152,414); 1968 (20,745; 171,863).

#### MICA

Mica is treated as a strategic mineral and India accounts for a big slice of the world trade in it.

The principal mica deposits are concentrated in Bihar, Rajasthan and Andhra Pradesh.

<sup>†</sup> During the calendar year 1969, 88,000 tonnes of Ferro-manganese, valued at Rs. 7.5 to Rs. 8.5 crores has been exported.

During 1968 Andhra Pradesh, Bihar and Rajasthan accounted for 29 per cent, 50 per cent and 21 per cent respectively of the all India output.

There are three mica insulation bricks manufacturing units, one each in Rajasthan, Bihar and Andhra Pradesh utilizing scrap or mica waste. There is also one major unit manufacturing different types of micanite in Bihar.

The production and export figures of Mica from 1965 to 1968 respectively in tonnes are: 1965: 23,840; 37,547; 1966: 22,915; 30,467; 1967: 18,152; 21,172; 1968: 17,667; 22,172.

#### CHROMITE

Chromite is an important strategic mineral of which India has moderate supplies.

The chief deposits are in the Singhbhum district of Bihar, Mysore and Hassan districts of Mysore State, Ratnagiri and Bhandara districts of Maharashtra, the Krishna district of Andhra Pradesh, the Salem district of Tamil Nadu, and Cuttack and Keonjhar districts of Orissa.

Production and exports respectively in '000 tonnes of chromite from 1965 to 1968 are: 1965: 60; 33; 1966: 78; 44; 1967: 114; 77; 1968: 206; 109.

Production of ferro-chrome during 1968 was 1,417 tonnes as against 138 tonnes in 1967.

#### MAGNESITE

Large deposits of magnesite used in the manufacture of magnesium salts, metallic magnesium and refractory bricks are known to occur in Salem (Tamil Nadu), Hassan, Coorg and Mysore (Mysore), Almora (U.P.), small deposits are known in Dungarpur (Rajasthan) and Singhbhum (Bihar). The chief producing centres are Salem, and Mysore district.

Major part of the output is used in the manufacture of refractory bricks for steel works and some quantity is exported.

Production and export<sup>8</sup> (in tonnes) of magnesite from 1965 to 1968 respectively are: 1965: 238,905; 53,099; 1966: 232,053; 34,228; 1967: 246,448; 19,912; 1968: 253,073; 22,309.

#### **GYPSUM**

Gypsum deposits are mainly found in Rajasthan (Jodhpur, Bikaner, Nagaur and Jaisalmer), Tamil Nadu (Tiruchirapalli and Coimbatore districts) and Jammu & Kashmir (Doda and Baramulla).

The total inferred reserves are placed at 1,130 million tonnes. Rajasthan accounts for more than 90 per cent of the Indian reserves.

Smaller deposits also occur in Gujarat (Halar, Bhavnagar, Porbander and Kutch), Andhra Pradesh (Nellore), U.P. (Tehri-Garhwal) and in Himachal Pradesh (Sirmur).

Production of gypsum in thousand tonnes from 1965 to 1968 are: 1965: 1,160; 1966: 1,294; 1967: 1,034; 1968: 1,321.

#### LEAD-ZINC ORE

Zawar is the only area producing lead and zinc ores. During 1968, 3,566 tonnes of lead concentrates and 12,839 tonnes of zinc concentrates were produced from Zawar mines in Udaipur district, Rajasthan.

The production of refined lead during 1968 was 1,649 tonnes as against 2,473 tonnes in 1967 from the Tundoo smelter, Bihar.

The present installed capacity of the plant is 6,000 tonnes per annum.

The zinc smelter at Debari in Rajasthan has gone into production in March 1968, having an annual capacity of 18,000 tonnes of zinc and 29,464 tonnes of sulphuric acid to be recovered per annum and converted in turn into 75,000 tonnes per annum of superphosphate. Besides, 76 tonnes of cadmium metal per annum will also be recovered.

Another firm viz. Cominco Binani Ltd. started production of their zinc plant based on imported concentrates, at Alwaye, Kerala, in July, 1967. It has a capacity of 20,000 tonnes of zinc per year and will recover 48,000 tonnes of sulphuric acid and 40 tonnes of cadmium metal per annum.

During 1968, the production of Zinc metal, was 20,699

The production of Cadmium metal for the first time in India commenced in March, 1968 and the total production during 1968 was 48 tonnes.

#### SULPHUR

The mineral pyrites is one source of sulphur. It is found in Amjore (Bihar), Ingaldhal, Kaiga (Mysore), Taradevi (Simla), Lashtial (Kashmir), Saladipura area (Rajasthan) and Polur (Tamil Nadu) of which Amjore and Ingaldhal deposits are of economic importance.

The Indian Bureau of Mines have estimated 391 million metric tons of pyrites in area covering 48 sq. miles at Amjor assaying 40 per cent sulphur.

The Pyrites, Phosphates and Chemicals Ltd. continued the implementation of two projects viz. (1) Mining of 0.24 million tonnes of pyrites per annum at Amjore and (2) setting up of a 400 tonnes per day capacity sulphuric acid plant at Sindri in Bihar.

Pyrites to the tune of 2.03 million tons assaying 20 to 30 per cent sulphur have been estimated to be available at Ingaldhal, Mysore State. A reserve of 115 million tonnes of pyrite/pyrrhotite containing about 22 per cent sulphur has been inferred down to a depth of 250 metres in Saladipura area, Sikar District of Rajasthan.

Substantial quantities of pyrites are associated with the gold deposits of Wynad in the Nilgiris District of Tamil

Copper pyrites deposits are also a source of sulphur. Some of the Indian coal e.g. Assam coal and Rewa coal are high in sulphur.

The Pyrites, Phosphates and Chemicals Ltd. has been set up under the aegis of NIDC to exploit pyrites for production of sulphuric acid and other related products. The Company has initiated action on setting up a sulphuric acid plant at Sindri with a capacity of 400 tonnes per day based on Amjore pyrites.

The country's main requirements are met from imports.

Yearly import of sulphur from 1964-68 in tonnes are as follows: 1965: 283,893; 1966: 287,956; 1967: 592,978; 1968: 390,390.

#### COPPER

In India at present Indian Copper Corporation Ltd. is the sole producer of copper ore and metal at Ghatsila, Bihar.

The production of refined copper was 9,286 tonnes in 1968 and 8,904 tonnes in 1967. This meets hardly 10 per cent of the copper requirements of the country.

Extensive investigations are being carried out throughout the country to locate promising copper bearing areas. The more important of these are Khetri, Madhan-Kudhan,

<sup>&</sup>lt;sup>1</sup> Crude Mica. The production of mica during 1969 declined by 4·7 per cent compared with that of 1967, consists of mostly calcined magnesite.

a All varieties.

Kolihan, Akwali, Dariba and few other sections of the Khetri Copper belt in Rajasthan; Rakha, Roam-Sideshwar, Ramchandrapahar and few other areas in Bihar; and in Agnigundala and Bellampalli in Guntur Dist. and Mailaram in Khammam district in Andhra Pradesh. The airborne geophysical surveys under "Operation Hard Rock" project were completed earlier in parts of Andhra Pradesh and over parts of Rajasthan and Bihar, West Bengal during 1968.

The integrated mine and plant at Khetri under the Khetri copper complex which is under construction will have a capacity of 31,000 tonnes of electrolytic copper metal annually. Besides 600 tonnes of sulphuric acid will be produced as a by-product which will be utilised for the production of 214,000 tonnes of triple super phosphate per annum.

Copper import in tonnes and value in '000 rupees respectively from 1965-68 are: 1965: 63,269; 357,601; 1966: 27,498; 282,491; 1967: 46,900; 447,118; 1968: 36,429; 326,203.

#### **ASBESTOS**

Naturally occurring fibrous minerals are called 'asbestos'. The commercial varieties fall into two groups, viz. the serpentine group found exclusively in the serpentine rocks and is commonly called chrysolite variety and the other amphibole group comprised tremolite, actinolite, anthophyllite, crocidolite and amosite varieties. The chrysolite variety is the most important one from the industrial point of view and is mainly limited to Pulivendla taluk of Cuddapah district, Andhra Pradesh, and the annual production is only 400 tonnes.

The bulk of the asbestos requirements of the country is met by imports on account of inadequate domestic production. The trend in the production and imports of asbestos for the last four years is shown in the table below:

	100 30				(In tonnes)
Yea				Output (amphibole & chrysolite)	Imports
1965	30.00		- 01	4,801	38,396
1966	2.		4 190	7,596	29,955
1967		MIL WE		8,110	29,785
1968				9,073	25,924

In all there were 9 asbestos cement manufacturing units in 1967 with a total installed capacity of 451,200 tonnes per annum, against which the production was 249,752 tonnes.

#### KYANITE AND SILLIMANITE

Kyanite and sillimanite are the important refractory minerals having the same chemical composition (Al<sub>2</sub>O<sub>3</sub> SiO<sub>2</sub>). India has richest deposits of kyanite and sillimanite in the world, kyanite located at Lapsa Buru, Kharswan, in Singhbhum district, Bihar and sillimanite deposits of Khasi Hills at Sonapahar, Assam. The Indian sillimanite can be used as a refractory without calcination since it shows very little expansion. India occupies an important position both as a producer and an exporter of kyanite and sillimanite.

The trends of their output and exports for the last four years are shown in the following table:

Year	F7 30	Ky	anite	Sillimanite			
Loar		Output	Export	Output	Export		
1965		37,481	31,144	11,276	5.786		
1966		63,820	35,726	10,286	6,332		
1967		50,374	40,653	5,800	2,046		
1968		64,361	50,465	4,651	2,514		

#### SALT

India produced 5.04 million tonnes of salt during 1968 of which Gujarat produced 55.3 per cent, Tamil Nadu 16.0 per cent, Maharashtra 8.9 per cent, Rajasthan 10.5 per cent, Andhra Pradesh 6.7 per cent and Orissa, Mysore, West Bengal, Himachal Pradesh, Goa and Kerala together 2.5 per cent. The production in 1967 was 4.49 million tonnes.

Besides being self-sufficient, India exports a sizable quantity of salt. India exported  $6\cdot17$  lakh tonnes in 1968 as against  $4\cdot49$  lakh tonnes in 1967. The country has reached a production capacity of nine million tonnes.

The average number of labourers employed per day in the salt industry in 1968 was 34,736 as against 33,700 in 1967.

To combat endemic goitre in the Sub-Himalayan belt, iodised salt, manufactured with financial help from UNICEF, is being supplied to the Goitre affected areas of Himachal Pradesh, Haryana, Punjab, U.P., Bihar, West Bengal etc.

The Government of Rajasthan installed a Plant in December 1965 for the recovery of Sodium Sulphate from sub-soil brine available at Didwana. Its present capacity is 16.50 tonnes of Sodium Sulphate per day.

The following quantities of important bye-products were recovered during 1967 and 1968.

(Figures in Tonnes)

Year	Gypsum	Magne- sium sulphate	Magne- sium Chloride	Sodium Sulphate	
1967	 31,475	137	5,426	3,958	
1968	 49,647	50	6,573	1,921	

#### RARE METALS

Investigations carried out by the Atomic Energy Department showed that the deposit of radioactive minerals in India had over 3.3 million tons of ore containing 300,000 tons of thorium of 10 per cent concentration and 10,000 tons of uranium of 0.03 to 0.04 per cent concentration.

The deposits also contain about 80 million tons of ilmenite. The production of ilmenite during 1967, was 41,609 tonnes.

Ilmenite is recovered from the beach sands of Kerala State contributing nearly 93 per cent of the total production and the Manavalakuruchi area in Tamil Nadu. It is mainly exported to U.S.A. and U.K.

Beach sands of Kerala and Tamil Nadu also contain a very useful radioactive mineral monasite. It contains 8 to 10.5 per cent of thoria, 0.3 per cent of uranium oxide, 20 to 31 per cent of cerium, 1 to 1.5 per cent of ultrium and 21 to 30 per cent rare oxides. Thorium oxide forms an important source of atomic fuel. The total reserve of combined rare earth oxides in beach sands has been estimated at 400,000 tonnes.

Uranium bearing ores have also been discovered in the Himalayan region of H.P. and U.P. and are being presently assessed.

Uranium mine at Jaduguda in Singhbhum District treats about 1,000 tonnes of mine per day worked by Uranium Corporation of India, a Govt. of India Undertaking.

India's total reserves of uranium are currently reckoned at 15,000 tons and of thorium at 500,000 tons.

The reserves of uranium in India can support about 5-10 million KWs of generating capacity over the life time of the stations.

#### PRODUCTION & VALUE OF MINERALS (Excl. GOA)

(Value in Rs. '000)

					Total Pr	roduction	Total Pro	oduction	
м	ineral			Unit	19	067	196	1968	
					Quantity	Value	Quantity	Value	
Coal(a)			••	'000 tonnes	68,223	1,979,481	70,814	2,335,520	
Lignite(a)	••	••	101	"	2,929	76,420	4,126	78,573	
Metalli	c Min	erals							
Bauxite				'000 tonnes	801	9,170	936	9,707	
Chromite				Tonnes	113,868	8,022	205,659	13,306	
Copper ore			2	'000 tonnes	459	31,495	476	32,646	
Diaspore			7	Tonnes	1,489	111	646	169	
$\operatorname{fold}(b)$				Kilograms	3,161	46,691	3,588	64,520	
lmenite	*.*.			Tonnes	41,838	1,774	58,725	2,196	
ron ore				'000 tonnes	19,068	187,915	20,577	208,869	
ead Concentr				Tonnes	3,995	2,113	3,566 1,551	1,886 98,555	
Anganese ore Rutile		••		'000 tonnes Tonnes	1,574 2,534	106,005 2,496	2,686	2,646	
ilver(b)	**		• •	Kilograms	3,471	1,254	2,802	1,483	
Volfram					28,411	384	39,107	548	
inc Concentra		::		Tonnes	10,029	4,011	12,839	5,134	
Non-Meta	llic M	ineral	8						
gate				Tonnes	457	90	630	135	
patite		- 837		,, 7,000	11,631	613	6,695	523	
sbestos				,,	8,110	1,334	9,073	1,440	
all Clay				,,	7,777	79	8,353	82	
arytes		- 1107		,,	53,016	1,216	51,718	1,275	
alcite				"	16,973	207	13,292	171	
halk				,,,	35,521	585	48,915	794	
hinaclay (non			ude)	'000 tonnes	340	NA	350	NA	
hinaclay (Sale				"	189	1,729	156	1,495 8,227	
hina clay (Pro	ocesse	d)		,,,	103	9,044	102 326	185	
orundum				Tonnes	540 7,626	3,167	8,643	3,148	
Diamond		site!		Carats '000 tonnes	1,167	14,141	1,259	17,753	
olomite	1:1			'000 carats	38	NA NA	23	NA	
merald (Crude merald (Dress		•					79	13	
eldspar	sou)			Tonnes	30,654	293	33,493	306	
ireclay(d)				'000 tonnes	426	3,497	419	3,431	
luorite (Grade	d/Sor	ted)		Tonnes	1,603	979	1,211	713	
arnet (abrasiv				,,	592	55	1,983	125	
arnet (gem va			1000	Kilograms	6,828	30	4,986	23	
ypsum				'000 tonnes	1,034	8,346	1,321	11,659	
on pyrites				Tonnes	NA	NA	15,431	2,562	
yanite				,,	50,374	11,290	64,361	13,969	
Limestone &	other (	Calcare	eous						
				'000 tonnes	19,571	152,414	20,745	171,863	
imestone ime Kankar	• •	• •			359	642	284	548	
alcareous sand		100	**	"	872	860	822	1,079	
agnesite		***	N. Carl	"	246	4,728	253	5,248	
ica (crude)	2007			Tonnes	18,152	19,744	17,667	20,031	
ica (Mine Scra	an etc	1	Ye Me	,,	5,070	NA	4,473	NA	
hre	1 000	.,		,,	37,854	763	35,494	543	
rophyllite				"	4,934	84	10,676	97	
artz & Silica				'000 tonnes	272	2,801	294	2,924	
lt (rock)			17	Tonnes	3,233	288	2,994	296 NA	
pphire (raw/u	inwas	hed)		Kilograms	189	NA	NA 4 651	375	
limanite				Tonnes	5,800	455	4,651 859	109	
ate			0.0	,,	1,309	188	166	4,579	
eatite				'000 tonnes	135	3,814	2,348	96	
ermiculite				Tonnes	363	13	2,010	00	

<sup>(</sup>a) Coal and lignite figures are inclusive of those for Jammu and Kashmir. (b) Relates to metal only. (c) Value of crude emeralds is not available as emeralds are auctioned in processed form only. (d) Excluding the output incidentally recovered from the Collieries.

### EXPORTS1 & IMPORTS1 OF ORES, MINERALS, METALS & ALLOYS DURING 1968

(Value in Rs. '000)

		EXP	ORTS	IMPO	lue in Rs. '000)
Ore/Mineral	Unit	Quantity	Value		
		Quantity	value	Quantity	Value
Abrasives (natural) Arsenic (Sulphide natural)	Tonnes	581	193	1,193	2,199
Ashartas Chas (mam)	"	7.0	700	9	26
Asbestos (Others)	"	13	102	25,924	47,862
Total asbestos	*	19	104	25,924	8
Asphalt and bitumen (natural	**		101	20,024	47,870
including gilsonite)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	48	26	469	460
Ball Clay	,,			2,858	910
Barytes	"	2,864	733		-
Bauxite	,,	98,916	4,431		
Bentonite Borax (Natural, Sodium and	**	973	171	11	62
othoral		01	AND DESCRIPTION OF A		
Briquettes of Coal, Coke and	***	21	51	5,769	3,716
lignite		100	14		
Chalk		28	7	217	00
Chinaclay (kaolin)	,,	86	26	2,104	98 696
Chromite (High grade, medium	*			2,102	090
and others)	,,	108,822	19,456		
Coal	'000 tonnes	469	25,549	241	195
Coke	Tonnes	28,732	2,993	601	169
Diamond (gem variety)(a)	Kilograms	NA	242,058	NA	162,706
Diamond (industrial including bort)					
Forth Clare	m.,,	3	3	30	7,284
Earth Colours	Tonnes	1	700	166	155
Emerald	25	621 NA	190	77	85
Feldspar	"	8,530	120 969	NA 6	29,745
Fireclay	. "	100	16	6	46
Fuller's earth	"	8	4	24	24
Graphite	,,	160	408	972	1,106
Gravel (including crushed stone	The state of the s			A THE LEWIS CO.	2,100
and flint)	"			120	61
Gypsum and plaster	,,	950	64	2	2
Iron ore	1000 !	48,526	3,018		-
Kyanita	'000 tonnes	15,635	864,910	-	-
Limo	Tonnes	50,465	18,889	-	
Limestone	"	457	76		The Part of
Magnesite (Calcined and not	"	408	4	NESSES STREET	
Calcined)		22,309	7,265	24	33
Manganese ore (1st grade 48%	" 3 (6)	22,303	1,200	24	00
and over Mn)	,,	160,638	28,009		
Second grade (35% and above			-0,000		
but less than 48%)	,,	305,164	42,784		_*
Ferruginous (less than 35% Mn)	"	721,741	49,510	_	-
Peroxide ore (Standard 86% MnO <sub>2</sub> )					
Peroxide ore (below 86% MnO <sub>2</sub> )	"		-		
It home	"	1,501	479		
Others	**	67	27		
Total: Manganese Ore		1,189,111	100 000	7 000	4,986
		1,100,111	120,809	7,263	4,500
Marble	,,	70	24	3	7
Mica (unmanufactured)					
Blocks	,,	1,731	68,017		
plittings	"	6,168	56,026		
Condenser films	"	87	10,556		
Youte and seren	,,	2,244	969	3 .	5
Vaste and scrap	,,	11,942	5,911	-	The state of the s
Total; Mica		00 1 70	141 400		
	*	22,172	141,479	(BUILDE - 1997)	
the second secon					

<sup>\*</sup> Milled for dry cell primary battery (imports), 7,263/4,986. 1. Including Goa. (a) Including imports of diamond by parcel post. Note: Minerals accounted for about 12 per cent of the total value of all exports from India during 1969. It was of the order of Rs. 1,700 million.

### EXPORTS1 & IMPORTS1 OF ORES, MINERALS, METALS & ALLOYS DURING 1968—(Contd.)

(Value in Rs. '000)

	华 (400 100) 中方学	EXP	ORTS	IMPO	IMPORTS		
Ore/Mineral	Unit	Quantity	Value	Quantity	Value		
recious and Semi precious							
stones (natural)(b)	Tonnes	NA	146,810	NA	10,520		
uartz	"	3,052	308	373	326		
ed oxide	3	1,165	206	1,830	1,386		
alt (Common, rock and others)		298,475	9,161	7	26		
alt petre (Potassium nitrate)	"	4	14				
llimanite	29	2,514	1,399				
eatite (Blocks and powder) one (building & monumental		13,593	4,329	2			
granite etc)	"	4,920	4,684	19,409	12,06		
ine Concentrates	"		1,347	805	3,196		
ther minerals	"	17,731	68,515	13,302	60,27		
luminium	33	17,751	08,019	10,002	00,27		
Copper							
opper and alloys		1,243	16,584	34,922	308,618		
rass and bronze	"	922	9,397	1,105	14,48		
erap	"	222	67	402	3,10		
Total: Copper		2,387	26,048	36,429	326,20		
Ferro Alloys							
erro-Manganese	"	73,320	42,675	128	360		
erro-silicon	27	3,161	3,723	68	30		
thers	,,	6,131	646	2,027	20,21		
Total: Ferro-alloys	,	82,612	47,044	2,223	20,88		
on (pig and cast etc.)		739,167	2,08,425	271	554		
	"						
Iron and Steel			A STATE OF THE STATE OF		00= 00		
on and Steel (material)	,,	801,782	504,245	4,22,132	825,89		
rap	35	507,968	87,098	12,433	11,894		
Total: Iron and Steel	,	1,309,750	591,343	434,565	837,79		
Lead							
1		3	8	35,221	67,193		
ead and alloys	*						
rap	,		CONTRACTOR OF CONTRACTOR				
Total: Lead	,,	3	8	35,221	67,193		
ver	Kilograms	54,356	33,180	59	48		
Tin							
	Tonnes	151	319	4,163	97,125		
		20	87	2,108	1,994		
	*			6,271	99,119		
Total: Tin	*	171	406				
ingsten	g rolled , set had be		=	7,244	5,593		
ckel	"	1	39	100 000	219,017		
ne (alloys and scrap)	"	659	434	106,663			
ther metals and alloys	,,	59	2		379		
aste and residues of other		1,662	2,099	Secretary of the	The same of the sa		
metals			2 1144	The state of the s	THE RESERVE AND ADDRESS OF THE PARTY OF THE		

<sup>1</sup> Including Goa (b) Including imports of precious and semi stones by parcel post. Excluding imports of diamond, emerald and feldspar which are given separately.

### MISCELLANEOUS INDUSTRIES

DIESEL ENGINES: Towards the end of 1968 there were 24 units in production of stationary type of diesel engines and 2 units for vehicular types. The position of diesel engine manufacturing industry from 1965 onwards is shown below:

		rs)

Year		Diesel 1 (Vehicula	Engines ar Types)		Engines ry Types)
1 car		Installed capacity	Produc- tion	Installed capacity	Produc- tion
1965	À	9,000	8,676	48,612	70,128
1966	-	9,000	7,032	72,312	87,876
1967		9,000	3,288	69,084	1,14,900
1968		9,000	2,436	64,038	1,16,148

The exports of diesel engines and parts amounted to Rs. 125·52 lakhs in 1967-68 and Rs. 210·41 lakhs in 1968-69.

Machine Tools: The number of units licensed for the manufacture of machine tools (metal working) in the country at the beginning of 1969 was 70.

By the end of the Third Plan (1965-66), the actual capacity and production of machine tools (organised sector) including accessories were Rs. 30 crores and Rs. 26 crores respectively. The capacity at the end of 1968-69 was placed at Rs. 56 crores and production at Rs. 21 crores.

### Production and Imports of Machine Tools

Year			Production (Rs. crores)	Imports (Rs. crores)
1965	144	 	25.48	34.93
1966			28.48	42.99
1967		 	25.47	39.40
1968		 	20.63	36.25

About 50 per cent of the output of machine tools in India comes from the State-owned Hindustan Machine Tools.

Bicycles: India produced 15,40,000 bicycles by the end of the Third Plan. The production in 1968-69 was 19.30 lakhs.

The installed capacity and production respectively during the year 1965 to 1968 are as follows:

1965 (16,78,992; 15,48,096); 1966 (16,78,992; 16,70,496), 1967, (16,39,992; 17,04,336); 1968 (21,75,000; 19,18,620).

The industry can practically meet all internal requirements. It is the one industry where all the components are indigenously produced.

Indian cycles have been successfully introduced, on a commercial scale in some foreign countries. The exports of bicycles and parts amounted to Rs. 1.4 crores in 1966-67, Rs. 2.2 crores in 1967-68 and Rs. 3.8 crores in 1968-69.

Apart from bicycles, an overseas market on a smallscale has also been built up for Indian tricycles.

Textile Machinery: By the end of the Third Plan (1965-66) the actual capacity and production of cotton textile machinery stood at Rs. 40.0 crores and Rs. 24.2 crores respectively. In 1968-69 the estimated production was only Rs. 17 crores.

#### PRODUCTION DATA

(Numbers)

Year				alico, semi- and automatic)		ete Ring g Frames	Carding Engines (Revolving flat cards)		Shuttle	
			Capacity	Production	Capacity	Production	Capacity	Production	Capacity	Production
1965		 	8,124 3,108		1,680	2,292	1,080	1,812	1,32,000	1,23,600
1966		 	8,268	2,724	1,680	1,404	1,080	1,092	1,32,000	1,14,132
1967		 	8,736	1,884	1,680	1,140	1,080	504	1,32,000	95,040
1968		 	7,368	N.A.	1,932	N.A.	1,080	N.A.	1,32,000	N.A.

Sewing Machines: At the beginning of 1969 there were five units manufacturing sewing machines with an annual capacity of 397,000 machines.

Capacity and Production respectively of Sewing Machine Industry, 1965-68: 1965 (4,41,996; 4,21,452); 1966 (4,69,992; 4,10,940); 1967 (4,69,992; 3,65,808); 1968 (3,97,000; 4,16,000).

The output of the sewing machine industry during the first three Plans and during 1968-69 was as follows: 1955-56:1,11,000; 1960-61:3,03,000; 1965-66:4,30,000; 1968-69:4,23,000.

India exported sewing machines and parts worth Rs. 56 lakhs in 1967-68 and Rs. 54 lakhs in 1968-69.

Electric Fans: The electric fan industry has made rapid progress during the past two decades.

#### PRODUCTION OF ELECTRIC FANS IN INDIA

Year	1963	1964	1965	1966	1967	1968
Nos. ('000s)	1,138	1,085	1,449	1,293	1,381	1,474

According to the Annual Survey of Industries (1965), there are 33 units in this industry which employs over 12,300 workers and produces goods worth about Rs. 23 crores.

#### EXPORT OF ELECTRIC FANS FROM INDIA

Year	1 - 180		1966-67	1967-68	1968-69
Value	(Rs. in	lakhs)	163	169	187

By the end of the Third Plan, the output of electric fans rose to 1.5 million from 1.1 million in 1960-61. The output was 1.35 million in 1967-68 and 1.50 million in 1968-69.

Electric Motors: By the end of the Third Plan the capacity and production of electrical motors (below 200 h.p.) were 1.75 million horse-power each. The capacity and production in 1967-68 and 1968-69 were as under (in million h.p.):

Electric motors (below 200 h.p.): 1967-68: 2.24; 2.08; 1968-69: 2.55; 2.00.

Electric motors (above 200 h.p.): 1967-68:0.55;0.10;1968-69:1.00;0.50.

Both the capacity and production of electric motors have for obvious reasons showed a marked increase in recent years as shown in table below:

Year	170.4		Capacity h.p.	Production h.p.
1965			13,52,400	17,01,600
1966			13,58,400	19,84,800
1967		1	14,16,000	20,74,000
1968		• •	22,17,600	19,00,400

Electric Cables and Wires: The country is more or less self-reliant in most types of electric wires. The following table gives the installed capacity and production of some major items in 1967 and 1968:

	Item	Unit	1	967	190	38
	TUCH	Onto	Capacity	Production	Capacity	Production
1.	VIR & PVC Cables	K/M	8,60,633	3,64,910	8,09,942	3,70,000
2.	ACSR & ACC	Tonnes	89,205	70,161	89,713	70,000
3.	Winding Wires	Tonnes	20,042	8,902	22,316	9,200
4.	Paper Insulated Power Cables	K/M	8,360	2,788	8,360	2,500
5.	Bare Copper Conductors	Tonnes	14,427	851	14,427	1,000
6.	PVC Power Cables	K/M	10,410	14,016	11,210	9,500

India's exports of electric cables and wires amounted to Rs. 120 lakhs in 1966-67, Rs. 168 lakhs in 1967-68 and Rs. 774 lakhs in 1968-69.

Electric Lamps: According to the Annual Survey of Industries (1965), there are 29 units engaged in the manufacture of electric lamps and their total output is placed at Rs. 8·9 crores. By the end of the Third Plan, the estimated production of G.L.S. and other lamps was 70 million and that of fluorescent tubes was 4·4 million.

Production of GLS lamps, was 73.7 million in 1967 and 77.0 million in 1968.

India has made a small beginning in the exports of electric lamps, bulbs and fluorescent tubes. The value of exports was Rs. 11·60 lakhs in 1967–68 and Rs. 21·92 lakhs in 1968–69.

#### Production of Electric Transformers

Year	1964	1965	1966	1967	1968
Production	- COLOR	Top of the	110000		A STANSON
in million K.V.A	3.3	4.3	4.8	5.3	4.8

During 1968–69 India imported transformers and parts worth Rs. 5·88 crores. Exports during that year amounted to Rs. 51 lakhs.

Soap: The organised sector contains some 41 units with an installed capacity of 2·3 lakh tonnes per annum, though all of these are not in actual production, while the cottage sector contains over 3,000 units, scattered throughout the country. There is a concentration of these small factories in those areas were oil-seeds are available in plenty. For example, the Punjab, U.P. and Gujarat have each an annual production of over 40,000 tons of soap while Andhra State produces just 8,000 to 10,000 tons a year. The following figures give the production in lakh tonnes in the organised sector from the year 1962. 1962: 1·5; 1963: 1·6; 1964: 1·6; 1965: 1·6; 1966: 1·7; 1967: 1·8; 1968: 1·9.

It is estimated that the tonnage of oil required for soap alone will grow by 40 per cent every five years and that after twenty years the total annual requirements of oil and fat for all products will have to be increased from about 1.8 million tons to 6.3 million tons.

The item-wise data on the exports of soap from India are shown in the table below:

	AND SE		(Rs. lakhs)
Item	1966-67	1967-68	1968-69
Household and Laundry			
Soap	19.02	23.80	15.45
Medicated Soap	1.99	2.08	1.91
Toilet Soap	24.38	22.66	34.36
Others	2.48	5.59	20.00
Total	47.87	54.13	71.72

Agricultural Tractors: The production of agricultural tractors during 1967 was 10,526 and 13,838 in 1968.

There are at present five companies engaged in the manufacture of tractors with a licensed capacity for 30,000 tractors of which the installed capacity during 1968 was 24,500.

The total availability of wheeled type farm tractors for recent years is given below:

Year	Indigenous Production No.	Imports (No.)	Total (No-)
1965-66	 5,796	1,989	7,785
1966-67	 8,816	2,591	11,407
1967-68	 11,394	4,038	15.432
1968-69	 15,470	2,508	17,978

Recently, the sale of agricultural wheeled tractors was brought within the ambit of the Essential Commodities Act, 1955 and selling prices of various agricultural tractors were fixed on a statutory basis.

### RAYON INDUSTRY

#### Rayon, Synthetic Fibres, and Cellulose Film

ODAY there are eight units producing rayon filament yarn, with a total production capacity of 36,000 tons per annum; three rayon tyre cord plants with a total capacity of 19,800 tons per annum; two rayon staple fibre producing units (capacity 60,000 tons per annum), one acetate filament and staple producing unit with a capacity of 2,000 tons per annum, five nylon producing units with a capacity of 5,700 tons per annum, and one polyester fibre producing unit, with a capacity of 4,700 tons per annum. Production of nylon tyre cord and acrylic fibre has also started in the country. With the increasing demand on the one hand, and the planned production of various chemical raw materials for synthetic fibres on the other, the production of all kinds of manmade fibres is bound to rise in the near future. This increase is likely to be more significant in synthetic fibres than in the cellulosic fibres, like rayon and acetate. In rayon itself, the rise in production would be more in case of staple fibre than in the case of filament yarn. This trend in India is keeping with world trends.

Gwalior Rayon were the first to manufacture rayon grade pulp from indigenous resources—such as Bamboo, Eucalyptus and other woods, as early as 1963 and the production of rayon grade pulp for the last four years has been as under: 1965-66: 49,500 tonnes; 1966-67: 53,000 tonnes; 1967-68: 58,100 tonnes and 1968-69: 60,900 tonnes. Other rayon grade pulp manufacturers are Travancore Rayons and S. I. Viscose.

Apart from staple fibre, we are now producing polyester fibre.

There are as many as 1,03,000 power looms with a production capacity 1,000 million metres of artsilk fabrics on 1.75 shift basis. In the next five years, an additional 40,000 power looms have been planned. There are nearly four lakh handlooms working on man-made fibres.

According to an estimate, out of the requirements of 1,10,000 tonnes (corresponding to the targeted capacity of 61 million kg. for viscose filament yarn and 42 million kg. for staple fibre) our present productive capacity is about 60,000 tonnes. Obviously we would have

to rely on imports.

The above difficulty may be partly overcome if expansion of viscose rayon capacity is allowed on the staple side at present to the extent desired by the planning subgroup. Besides, the following considerations further support this expansion: (a) rayon can never be regarded an outmoded fibre and still the same has plenty of life in it; (b) rayon is most widely used and least expensive of all fibres - its quality and processability in staple form being superior to any other synthetic and natural fibre; and (c) the newer synthetic fibres are not its primary competitions except in certain specific market.

#### VARIETY-WISE CONSUMPTION

#### (i) Viscose Rayon Filament Yarn:

The production capacity of viscose rayon filament varn shot up from 262 lakh kg. in 1962 to 360 lakh kg. in 1968-an increase of 37 per cent. During this time the imports of viscose yarn dwindled from 88 lakh kg. to nil. This is significant since the man-made textile industry now entirely depends on the indigenous production of viscose rayon filament yarn for its requirements. Another revealing thing is that the popularity of viscose rayon filament yarn has not increased as compared with the non-cellulose fibres.

#### (ii) Acetate Rayon Filament Yarn:

The production of this type of yarn increased in the country from 14 lakh kg. in 1962 to 15 lakh kg. in 1968. The imports of this type of yarn dropped from 13 lakh kg. to nil. The imports were partly replaced by the indi-genous production and partly due to fall in demand. The Table on next page shows the production, imports and availability of man-made fibres in India from 1965 to

Requirements of Raw Materials: The chief raw materials for the viscose process of filament and staple fibre, are rayon grade pulp, caustic soda and sulphur. The requirements of these raw materials for the production of 96 million lb. of viscose filament, 64 million lb. of staple fibre and 32 million lb. of acetate filament and acetate staple fibre are estimated as follows:-

diame will a		82,000	tons
MO DE		80,000	,,
disulphide)		60,000	,,
		6-4	million
			gallons
process on	ly)	13,000	tons
	disulphide)	disulphide)	disulphide) 80,000 60,000 6•4

In addition, small quantities of copper sulphate, ammonia, sodium hydroxide, cotton linters and sulphuric acid will be required for the manufacture of cuprammonium and phenol and ammonia for the manufacture of caprolactum.

The entire requirements of rayon grade pulp are at present met by imports. A number of schemes for the manufacture of rayon grade pulp with a total annual capacity of about 270,000 tons have, however, been licensed or recommended for licence under the Industries Act.

The Fourth Five Year Plan envisages the production of various fibre and man-made fibre fabrics in the following quantities:

Tadast		1960-61	1965-66	196	38-69	1973-74 Production	
Industry	Unit	Production	Production	Capacity	Production	(Target)	
Rayon filament	'000 tonnes	21.7	45	55	51.3	64	
Staple fibre	,	22.1	38	26	60	90	
ment, nylon tyre cord and other industrial yarn Polyester filament and	W. A.	_	1.5	6.8	6.5	29	
staple	,,	A STATE OF THE STATE OF	1.4	4.5	4.5	12	
Acrylic fibre	,,			S DIE		12 10	
PVA fibre	Mill. metres	546	870		975	1,500	

			Cellulosic Yarn		Non- Cellulosic Yarn	Cellulosic		Non-Cellulo	sic HALL	
Availability		Viscose Filament yarn	Acetate Filament yarn	Cup- ram- monium yarn	Other Filament yarns including Nylon, Acrylic, Polyester, Polyprope- lyne, PVC & PVA, Filament yarn, etc.	(Viscose/ Acetate) Staple Fibre	Nylon Staple Fibre	Polyester Staple Fibre	Acrylie, Poly- propelyne PVA, PVC, etc.	Total (Yarn + Staple)
1965		07.070	2 000						53500	
Production		35,273	2,033	-	1,480(N)	37,151(V)		1,401		77,33
Imports		211	297	801	5,061	161	309	1,406	452	8,69
Availability 1966	100	35,484	2,330	801	6,541	37,312	309	2,807	452	86,03
Production		33,405	1,337		1,920(N)	42,944(V+A)		2,549		82,15
Imports		284	1,557	45	4,496	17	211	360	357	5,78
Availability		33,689	1,351	45	6,416	42,961	211	2,909	357	87,93
1967		00,000	1,001		0,110	,	All the same	2,000		07,00
Production		34,761	1,712		2,457(N)	52,181(V+A)		3,045		94,15
Imports		4	6	17	3,750	13	510	346	1,014	5,66
Availability 1968	••	34,765	1,718	17	6,207	52,194	510	3,391	1,014	99,81
Production		36,038	1,471		5,334(N)	62,087(V+A)		4,697	-	1,09,62
Imports		1		60	3,089		168	476	722	4,510
Availability		36,039	1,471	60	8,423	62,087	168	5,173	722	1,14,14

Note: N = Nylon, V = Viscose, A = Acetate.

Source: Production — Association of Man-made Fibre Industry. Imports — Director General of Commercial Intelligence and Statistics, Government of India.

The Planning Commission has fixed a target of 1,500 million metres for the production of rayon and synthetic textiles during the Fourth Five Year Plan. The present annual output is about 1,000 million metres which is to be raised by 50 per cent to attain the target. The expansion planned for fabrics output will call for substantial increase in the requirements of raw materials. The Fourth Plan provides for stepping up production of both rayon and synthetic yarn and fibre.

There are 243 units manufacturing cellulosic man-made fibres in the world of which 84 are in Western Europe, 60 in East Europe and China, 29 in North America, 22 in South America and 48 in Africa, Asia and Oceania. In India there are eleven units manufacturing cellulosic man-made fibres and yarn including Shriram Rayons which manufacture only rayon tyre cord. The world capacity for cellulosic man-made fibres in March 1969 was 4·12 million tonnes. The total installed capacity in India is 0·10 million tonnes or 2·4 per cent of the world capacity. The details of unit-wise installed capacity, production and percentage utilisation for the years 1965, 1968 and 1969 are given below.

		L. History	1965	Talk all hard		1968		19	69
Name of the Unit		Capacity (tonnes)	Produc- tion (tonnes)	Utilisa- tion %	Capacity (tonnes)	Produc- tion (tonnes)	Utilisa- tion %	Capacity (tonnes)	Produc- tion (tonnes) (Jan June)
ī.	VISCOSE YARN								
1.	Travancore Rayon	2,800	2,031	73	2,800	1,487	53	2,800	989
2.	National Rayon	0.000	8,036	89	9,000	8,870	99	9,000	4,021
3.	Kesoram Rayon	4,562	4,850	106	4,562	4,502	99	4,562	2,262
4.	J. K. Rayon	OFFE	2,564	100	2,555	2,686	105	2,590	1,298
5.	Indian Rayon	2,185	1,702	78	2,185	2,231	102	2,340	01,113
6.	Baroda Rayon	0 170	3,181	128	3,000a	3,007	100	3,000	1,405
7.	Century Rayon	7,000	9,527	136	7,000	10,484	150	7,000	5,400
8.	South India Viscose .	3,650	3,567	98	3,740	2,975	80	4,100	1,609
		34,230	35,458	104	34,842	36,242	104	35,392	18,097

a) From May 1968.

		1965			1969			
Name of the Unit	Capacity (tonnes)	Produc- tion (tonnes)	Utilisa- tion %	Capacity (tonnes)	Produc- tion (tonnes)	Utilisa- tion %	Capacity (tonnes)	Produc- tion (tonnes) (Jan June)
II. VISCOSE STAPLE FIBRE	13/6			authorized in				
<ol> <li>Gwalior Rayon</li> <li>South India Viscose</li> </ol>	34,310 3,650	34,131 3,020	99 83	63,875 <i>b</i> 3,650	58,988 2,566	92 70	63,875 3,650	27,460 1,384
III. ACETATE YARN & STAPLE FIBRE				V254 P				
Sirsilk	2,160	2,035c	94	3,200	1,974c	62	3,200	1,025c

<sup>(</sup>b) Capacity of Nagada plant = 54,750 tonnes. Plant at Mavoor with a capacity of 9,125 tonnes started production from June 1968 and its production was 4,075 tonnes. (c) includes Acetate staple fibre.
Source: "Modern Fibres".

The production, exports, the per capita consumption and the percentage of exports to production of man-made fibre fabrics in India since 1965 is given in the following table:—

Year	Produc- tion (million mts.)	Exports (million mts.)	Per capita Consump- tion (mts.)	Percentage of Exports to production
1965	 870.3	38.5	1.71	4.4
1966	 852 · 6	40-9	1.63	4.8
1967	 881-6	3.9	1.72	4.4
1968	860-0	15.4	1.65	1.8

Source: "Indian Textile Bulletin."

#### ART SILK

The art silk weaving industry is an important one in Punjab which leads all the other States of India in the development of small industries. Amritsar and Ludhiana are the two important centres where this industry is concentrated. Amritsar has about 1,200 weaving units with an installed capacity of about 9,000 power looms while about 5,000 looms are installed in Ludhiana in over 650 factories. The Punjab, therefore, has a total of 14,000 looms installed which account for nearly 18 per cent of the total loomage in India.

The present crisis in the industry is the result of the two-month labour strike in 1965, followed closely by the Indo-Pak war. Crippled already by these blows, the industry received another set-back at the time of devaluation, when all the export promotion schemes were suspended. Another difficult problem for the industry is the sver increasing price of art silk yarn which has registered a rise of no less than 75 to 80 per cent.

# SHIPPING INDUSTRY

SINCE independence India has taken rapid strides in the fields of shipping and shipbuilding. On the day of independence India had only 59 merchant ships (mostly coastal) of a total 0·19 million GRT. At the end of March, 1969, it had increased to 252 ships of 2·23 million GRT. The Government has decided to purchase 31 ships during 1969-70, for which a provision of Rs. 20·52 crores has been made.

The expansion of Indian maritime fleet since independence is given below (No. of ships & G.R.T. in lakhs respectively) as on: 15-8-1947 (59; 1·92); 1-4-1951 (94; 3·72); 1-4-1956 (126; 4·80); 1-4-1961 (172; 8·58); 1-4-1966 (221; 15·40); 1-4-1969 (252; 22·28); 1-3-1970 (258; 23·28).

#### Expansion of the Mercantile Marine:

On 31-3-1966, the merchant fleet of India consisted of 221 ships of 1,540,476 GRT. The changes that have taken place since then upto 1-3-1970 are indicated below:—

				COA	ASTAL	OV	ERSEAS	TOTAL		
				No.	g.r.t.	No.	g.r.t.	No.	g.r.t.	
As on 31st March 1966 (e	nd of 1	IIIrd P	lan)	99	322,761	122	1,217,715	221	1.540,476	
As on 1st April 1968				89	335,050	149	1,601,627	238	1,936,677	
Acquisition				2	14,428	15	152,658	17	167,068	
orappings				5	19,281	_		5	19,281	
As on 31st January 1969				86	330,197	164	1,754,285	250	2,084,482	
As on 1st March 1970				81	307,015	177	2,021,645	258	2,328,660	

The freight and passenger earnings of Indian ships operating in overseas trades increased from Rs. 108 crores in 1967-68 to Rs. 121·29 crores in 1968-69 and the overall share of Indian shipping in the overseas trades also increased from 15·60 per cent to 18·45 per cent.

The additional tonnage ordered during the year included ten multi-purpose dry cargo ships of 15,000 DWT each to be built in Rumania against rupee payment.

#### SHIP BUILDING

The country has two shipbuilding yards in operation and one under construction; all of them are in the public sector. Hindustan Shipyard at Visakhapatnam in the eastern coast of Andhra Pradesh and Mazagon Dock at Bombay are in operation and the Cochin Shipyard is still to be completed.

The Hindustan Shipyard has built 40 ocean-going ships, since 1947. During 1968-69, 3 cargo ships of 12,500 DWT each were built in the yard. Six other ships are under construction. Target for 1969-70 is 3 ships tctalling 38,700 DWT. In the immediate future, the Hindustan Shipyard is expected to attain a capacity of building 6 ships as against the present 2.

The Mazagon Dock caters mostly to the needs of the Indian Navy. It launched a leander class frigate in 1968 and a second one on May 6, 1970. Four other ships were also launched during the year. It has a subsidiary oz. Goa Shipyard Ltd., which builds launches, tugs, etc. and also does ship repairing.

Garden Reach Workshop mainly carries out ship repairing. Recently a plant for the manufacture of diesel engines (marine) has been erected.

#### Foreign Assistance

Foreign assistance in ship building has mostly come from Yugoslavia. Yugoslavia and Poland were the first European nations to help India in shipbuilding. Recently GDR and Rumania have also become ship suppliers to us. During 1959-69, the Yugoslavian ship builders have supplied a total of 700,000 DWT (i.e. almost one-third of the Indian fleet). Supply of Yugoslavian vessels to India may not continue after fulfilling the present orders. The Yugoslav Government has hitherto been providing loans to be repaid in 10 years with 2 per cent interest. Now Yugoslavia is pressing for a revision of this system to a 6 years' repayment period and 5 per cent interest.

The Cochin Shipyard gets technical and financial assistance from Messrs. Mitsubishi & Co., Japan. The project comprises a dock for building ships of 66,000 DWT and a repair dock for ships upto 85,000 DWT.

With the completion of the Cochin Shipyard, the capacity for indigenous production will increase to 2,25,000 DWT per year from the present 40,000 DWT.

#### DEVELOPMENT

A significant step taken during the Second Plan period was the establishment of a non-lapsing shipping development fund for grant of loans to shipping companies for the acquisition of tonnage.

The 10-year-old Shipping Development Fund's contribution to the growth of shipping tonnage works out to about one lakh GRT a year on an average.

Another significant step taken in the field of shipping was the establishment of a Shipping Co-ordination Committee in the Department of Transport. The Committee is intended to bring about better liaison between various

Ministries of the Government of India and other Government organisations which have cargoes requiring transport, on the one hand, and the Indian shipping companies, on the other, so as to ensure the maximum utilisation of the available Indian tonnage.

An All-India Shipping Council has been constituted for discussing and negotiating freight and shipping problems with conferences and shipping companies.

The Union Government set up a 17-member standing committee for ship-building, ship repairs, and ship ancillaries in June 1968.

#### Shipping Companies:

The major shipping companies operating from India are the Shipping Corporation of India, the Mogul Lines (in the public sector) and Jayanti Shipping (taken over by the Govt.) and Scindia Steam Navigation, India Steam Shipping, Chowgule Shipping, Malabar Steamships, South India Shipping Corporation, Great Eastern Shipping, Ratnakar Shipping and Dempo Steamships.

Together they carried 18·3 per cent of Indian overseas trade in 1968-69. It showed an improvement from 15·6 per cent in 1967-68 and 13·3 per cent in 1966-67.

Shipping Corporation of India is the largest maritime company in India and it owned 61 ships of a total of 550,416 GRT at the end of March 1969. According to reports, two tankers (total 173,000 GRT) have joined its fleet recently. It started 6 new liner services in 1968-69 and the company's total income during the year was Rs. 42.25 crores.

Scindia is the largest shipping company in the private sector and the company owned 45 ships of a total of 370,063 GRT on November 15, 1969. The company has placed orders for a number of vessels with various shipyards both inside and outside the country.

#### Expansion:

According to newspaper reports 9 ships of a total of 518,501 GRT have been added to the Indian maritime fleet in 1969. Some of the likely additions in the immediate future are as follows:—

A bulk carrier (106,400 DWT) for the Great Eastern Shipping at a cost of Rs. 9 crores; Scindia is to receive 4 ships from GDR (cost Rs. 24 crores); SCI has signed contracts with GDR for the purchase of 6 ships, with Yugoslavia for 3 bulk carriers of 85,000 DWT each and with Rumania for buying 10 ships on credit (cost Rs. 24 crores). Further, SCI has booked the entire ship building capacity available with the Hindustan Shipyard and Mazagon Dock.

#### Shipping Act:

The Merchant Shipping Act, 1958 provides for the establishment of a National Shipping Board and a Shipping Development Fund. It also provides for the safety and the efficiency of the merchant marine and the welfare of seamen and passengers. An important provision is about the definition of an Indian ship.

There is a National Welfare Board for Seafarers to advise Government on welfare problems.

#### Merchant Navy Training:

The Merchant Navy Training Board advises the Government on all matters pertaining to the training of Merchant Navy Personnel. The Board is reconstituted every two years. The Transport Minister is the President, the D.G. of Shipping is the Chairman and the Deputy D.G. is the Vice-Chairman.

The Government of India have set up six training establishments for the training of merchant navy officers and ratings. The Training Ship 'Dufferin' provides pre-sea training course of two years for navigating cadets. The Directorate of Marine Engineering Training provides a four years' course for engineering cadets. The present intake is 100 cadets per annum. But efforts are being made to increase it to 150. The Lal Bahadur Shastri Nautical and Engineering College provides post-sea instructional courses for both navigating and engineering cadets and apprentices who are preparing for Ministry of Transport Certificate of Competency examinations. There is no limitation as to the intake of this institution. The Training Ships 'Bhadra', 'Mekhala' and 'Nau Lakshi' are ratings training establishments. These institutions provide a three months' course for deck, engine and saloon ratings.

In order to make the training scheme for ratings more comprehensive, the syllabus has been revised and the training period also extended from 3 to 4 months with effect from 1st April 1967. The maximum age limit has been reduced from 25 to 22 while the minimum qualifications have been raised from IV to VI standard.

There is a Trust for the award of 8 Loans Scholarships of Rs. 100 each per month to the poor and deserving cadets of the T.S. 'Dufferin' and the 'Directorate of Marine Engineering Training'. The Trust will be financed by contributions from Shipping Companies.

During the year 1968-69, 80 navigating officers and 95 marine engineer cadets passed out of the T.S. 'Dufferin', Bombay and D.M.E.T., Calcutta respectively.

The training ship 'Dufferin' is 65 years old now and has outlived the life of the average ship. Therefore it will be replaced by a new ship which is nearing completion at Visakhapatnam. This new ship will have facilities for training 250 cadets as against Dufferin's 100. It will be commissioned in 1971.

#### Sailing Vessels:

The Sailing Vessels Committee emphasised that if the industry were to survive, the owners of sailing vessels should be encouraged to mechanise their vessels. Government have, therefore, approved a scheme for the grant of loans for this purpose. Under the scheme, loans are being granted for mechanisation of sailing vessels of 100 tons and over upto a maximum of 75 per cent of the cost of auxiliary machinery, provided the vessels in question are considered seaworthy and suitable for installation of machinery.

#### Maritime Freights Commission:

A high level Commission known as the Maritime Freights Commission is in existence since 1962 to advise Government on matters relating to freight rates.

The capacity of the major ports is given below :-

The shipping conferences operating to and from the Indian coast have revised their freight rates upwards in October: (1) India-U.S.A.-Atlantic route by 5 per cent (aggregate increase since 1965 is 32·5 per cent); (2) Japan-Spain lines by 7·5 per cent; (3) Bay of Bengal-Japan-Bay of Bengal lines by 7·5 per cent (20 per cent since 1966); (4) Lines operating in Singapore and Malaysian ports to India by 7·5 per cent.

It is reported that the freight increases would have been much higher but for the persistent protests from the Government of India. However, the Indian shippers are disorganised and are not in a position to fight against the international shipping conferences.

It is soring to note that in the case of freight rates India has been discriminated against. Manganese ore exports from India to U.S.A. cost \$9 to \$10.75 per unit whereas it is much lower from Brazil (\$4.1), West African countries (\$6.15), South Africa (\$7.35) and Australia (\$2.25). Despite the fact that South Africa is farther from Japan than India is, it pays only \$4.97 (per unit) for exporting iron ore to Japan as against \$5.40 to \$7.58 India is paying. Examples of this kind are too many and cover almost all fields. As a result, our goods become costlier in the world markets making it difficult to compete with the products from other countries.

#### Freight Investigation Bureau:

The Freight Investigation Bureau continued to render assistance to shippers and shipping lines in sorting out space and freight problems. To meet the spot requirements of the shippers in the Southern region, a Branch Office of the Bureau was opened in Madras in December, 1967.

At the instance of the F.I.B., the Indian Council of Arbitration has recently set up a Marine Panel of Arbitration. The Bureau is now directing its efforts towards making the shipping lines introduce a suitable clause in the shipping documents to permit arbitration of shipping disputes relating to exports from India to be conducted in India according to the Indian Arbitration Law.

The work of the Freight Investigation Bureau, had a restraining effect on the Conferences and a number of non-traditional items was accorded special treatment. The Bureau was also instrumental in obtaining adjustments in rates in about 500 cases during 1967–68, and 150 cases in 1968–69, assisting a number of new items of export like railway wagons, concrete mixers, motor vehicles, asbestos pipes to get a footing in traditional and new markets.

#### Indian Ports:

India's major ports are Calcutta, Paradip, Visakhapatnam, Madras, Cochin, Mormugao, Bombay and Kandla.

	-0.00	The state	13.530	No.	14 T. O.	151.15	Reserved to the second	Capacity (	in million tonnes)
Name							Beginning of the 3rd Plan	End of the 3rd Plan	Beginning of the
Calcutta							12.16	12.20	12.50
Visakhapatna							3.60	8.00	10.30
Paradip	100	Links	STATE TO	Table 16	18.00				2.00
Madras		1000					3.20	5.00	7-00
Cochin				4 100	1000		3.25	4.20	5.70
			110	110	No. of the			8.00	8.60
Mormugao		215000	4				14.50	15.00	15.60
Bombay		**	• •		* *				2.10
Kandla				**			1.06	1.80	
TOTAL	-			1			37.77	54.20	63.80

Expansion programmes are under implementation in most of the major ports. A number of minor ports are also being developed and expanded.

### WOOLLEN INDUSTRY

THE capital investment in the industry including combing units has been estimated at Rs. 97 crores.

The Indian woollen industry comprises an organised sector and a wide range of decentralised sectors. The latter one represents the traditional handicraft skills in design and execution as a domestic industry and the former one represents the modern sophisticated production techniques and management.

India's 40 million sheep produce annually about 70 million lbs. of raw wool. In terms of productivity, the average yield of sheep in India works out at about 1.9 lbs. as against over 9 lbs. in Australia. Even with the modest improvement in yield, India's raw wool production can be stepped up to 90 million lbs. by 1974. About 50 per cent of the raw wool produced in India is below 40s count and a substantial part of this low quality is exported and the rest is used for the manufacture of coarser apparel and floor covering, etc.

There are combing units and spinning mills. There are composite units, in which all the three processes are carried on. There are small units in the decentralised sector using hosiery machines, powerlooms and handlooms.

In order to make adequate wool tops available from indigenous sources and save foreign exchange on imports the Indian Government issued licences for establishing wool combing units in the country. The first of such unit, the Wool Combers of India Ltd. established their combing plant in Calcutta under their original name Issac Holdens (India) Ltd. At present there are 10 commissioned wool combing units in the country with a licensed capacity of 38·8 million lbs. besides a few non-commissioned combers who are combing for self consumption. The following is the year-wise production@ of wool tops in million lbs. in the country since 1961. 1961: 5·5; 1962: 9·2; 1963: 13·4; 1964: 9·9; 1965: 11·1; 1966: 10·12; 1967: 18·18.

The major concentration is in the northern region of India. There are 96 organised units in the Indian Woollen industry. Of the 96 units, 44 units are composite mills and 52 units are spinning mills. Of the total of 96 units, 51 units are located in Punjab, representing 65 per cent of the total.

The uptodate figures of the industry's capacity are: woollen spindles 66,260; shoddy spindles 21,821; worsted spindles 140,880; and looms (including decentralised sector) 3,600.

The production figures were as follows:

Yea	r		Woollen worsted yarn (million kgs.)	Woollen worsted fabrics (million metres)	Woollen fabrics non- wearables (million kgs.)
1965		 	18-13	9.87	4.08
1966		 	16.59	9.39	3.94
1967			16.65	8.92	3.33
1968			18.55	11.84	3.35

The index of production of woollen textile (base: 1956 = 100) which had declined from  $136 \cdot 4$  in 1965 to  $122 \cdot 5$  in 1967, rose to  $144 \cdot 2$  in 1968.

With a view of making the country independent of import, investigations to regenerate wool from human hair and other materials such as coarse/waste wool, were undertaken at the Defence Research Laboratory (Materials), Kanpur. The total capital outlay capable of producing 100 kg. of wool per day is estimated at Rs. 27 lakhs.

#### **EXPORTS**

The total wool and woollen products which India exported stood over Rs. 26·2 crores, in 1968-69, recording an increase of 22·3 per cent over 1967-68. Exports of hosiery items jumped up from Rs. 6·20 crores to Rs. 8·99 crores. Evaluating the performance against the export target set for the year, raw wool, yarn, shoddy wool and tops have kept far from being anywhere near the targets, whereas hosiery goods, worsted and mixed fabrics and carpets have fared well in achieving well in the targets. In the case of hosiery, exports have exceeded the target.

Against this aspect, it may be pointed out that there has been a fall in the exports during the nine months period of 1969-70, (April to Dec.). Exports in this period have amounted to Rs. 17-8 crores compared with Rs. 18-2 crores during the same period in the previous year. The trend in the exports of woollen goods is indicated in the table below.

1966-67 Value in Rs. lakhs	1967-68 Value in Rs. lakhs	1968-69 Value in Rs. lakhs
683 · 09	577.54	487.58
1.20	0.43	1.20
12.50	1.39	12.35
074 57	200 76	620.09
274.51	339.10	020.09
137-18	183 · 62	223 - 79
4.62	9.83	5.85
10.12	5.18	6.13
907.45	965.85	1.065-14
007.40	200.00	200.00
		200 00
1,930-67	2,143.00	2,622 · 13
	Value in Rs. lakhs 683.09 1.20 12.50 274.51 137.18 4.62 10.12 807.45	Value in Rs. lakhs         Value in Rs. lakhs           683·09         577·54           1·20         0·43           12·50         1·39           274·51         339·16           137·18         183·62           4·62         9·83           10·12         5·18           807·45         965·85           —         —

#### IMPORT POLICY

The production performance of woollen industry is heavily dependent upon imported raw wool and wool tops. The allocation of foreign exchange to the woollen industry, which was considerably reduced during the years 1962-66 was raised during 1966-67. The industry was allotted Rs. 10 crores of foreign exchange during 1966-67 for import against Rs. 2 crores in 1965-66. However, the industry supplemented its raw material requirements by way of National Defence Remittance licences and export promotion entitlements.

Certain policy changes in regard to wool and woollen textiles were announced in November, 1967. All imports of wool either for domestic consumption or for export purposes will be canalised through the State Trading Corporation. The 20 per cent share earmarked for the worsted sector will be distributed to mills in the organised sector on the basis of their installed and recognised spindleage. The balance of 80 per cent will be distributed to various sectors in the proportion of 55 per cent for weaving, 27 per cent for hosiery and 18 per cent for knitting. Units in the decentralised sector will get a direct allotment of wool.

The trend in imports of raw wool during 1966-67 to 1968-69 is as below (Figures in Rs. crores): 1966-67: 11.49; 1967-68: 11.82; 1968-69: 11.23.

Export duty on degreased raw wool which was at the rate of 10 per cent ad valorem has been withdrawn in the 1969-70 budget and the excise duty on wool top has been levied for the first time to ensure better revenue collection.

#### FOURTH FIVE-YEAR PLAN

There was some increase in the production of livestock during the Third Plan. Wool production increased from 32.55 million kgs. in 1961 to 35.66 million kgs. in 1966.

The clip of Indian sheep is coarse. To produce quality stud rams of important indigenous breeds of sheep and superior exotic breeds, the programme envisages eight large sheep breeding farms with flock strength of 5,000 to 155,000 sheep, expansion and reorganisation of 15 state farms, establishment of five sheep farms, 50 sheep and wool extension centres besides the expansion of 80 such centres.

The targets of production set for the woollen cloth for the Fourth Plan period are given below:

Year		Million Metres
1960-61	Production	14
1965-66	Production	10.1
1968-69	Capacity Production estimated	34·6 10·0
1973-74	Production	25

### PAPER INDUSTRY

I NDIA ranks 20th among the paper producing countries in the world. But the per capita consumption at 3 lbs. is one of the lowest in the world.

According to the Annual Survey of Industries, paper industry in India employed productive capital of Rs. 100

crores in 1964 and the number of persons employed was 42,000. In 1968-69 the productive capital employed in this industry was estimated at about Rs. 160 crores.

The number of existing units and the proposed expansion is given below:

### State-wise Distribution of existing units with present and proposed capacity

States						No. of existing units	Present installed capacity (Tonnes)	No. of existing units proposing expansion	Proposed capacity for expansion
West Bengal				13	1000	9	122,280	4	41.996
Uttar Pradesh					***	2	34,200	1	13,700
Bihar			**			2	63,000	in the state of th	37,500
Orissa						3	102,000	2	17,600
Haryana				**		4	45,760	3	11,740
Madhya Pradesh						3	57,000	_	
<del>l</del> ujarat		1				6	18,390	2	6,600
daharashtra				**		14	73,110	3	9,100
Indhra Pradesh	**			***		2	43,000	2	42,900
Aysore						5	56,640	2	18,200
Kerala							14,340	2	-
Madras	**	13.5			12.00	2 3	26,000	1	6,400
		Total		10.00		55	665,920	21	205,836

The following new units have been approved by the Government for paper production:

4 1 1 2	State								bol.	The same	Location	Yearly capacity (Tonnes)
. 1.		 				7	9		 		Ghataprabha	21,000
2.		 			V		2010		131-11		Kampli	12,000
3.	Bihar* Tamil Nadu	 							 -		Darbhanga	15,000
4. 5.	Maharashtra	TO VETTO							 		Papanasam	9,000
6.	Maharashtra		1.		de The				 	***	Rahuri	42,000
7.	Danial &						**		 		Nasik/Ahmednagar	37,200
8.	Wanala			1							Panipat	30,000
		A.				4,10	HO!	1 0 F		**	Angamali, Erna- kulam 30,000	0 (flutting

Media and Liner Paper)

<sup>\*</sup> These units are bagasse based units.

000 tonnes)

The bulk of this industry's production comprises printing and writing paper. The table below shows the production trends of the main four items.

		Installed			Production	三人	1 00 ·
Year		capacity (Total)	Total	Printing and writing	Wrapping	Special varieties	of Wedgets
1962		433.80	387.64	234 · 38	75.54	8.04	69.67
1963		502 - 25	462.61	299.39	$76 \cdot 75$	7.91	78.56
1964	3.2	555.94	490.66	319.73	85.04	6.18	79.70
1965	Ditteres	643.87	537.05	334.14	96.12	5.56	101.23
1966		643.87	584.98	381 · 16	103.43	6.46	93.94
1967		701-19	618-47	377-62	120.66	8.95	111-24
1968		788.42	-	393-67	118-95	18.02	51·21 (6 months)

The internal demand for paper and paper products is estimated to go up to nine lakh tonnes by the end of the Fourth Plan. Accordingly the target of production has also been set up at 9.6 lakh tonnes (including the 0.6 lakh tonnes export demand) in the Fourth Plan.

Our exports have been improving steadily during the last three years and the export of paper board and other products (excluding publications) amounted to Rs. 4.7 crores in 1968-69.

#### NEWSPRINT

In the case of newsprint about 70 per cent of our requirements are being met by imports which costs the

country about Rs. 8 crores every year. The main supplying countries are Canada, Finland, Norway, Sweden, Poland and U.S.S.R. Internally, the newsprint is being supplied by the National Newsprint and Paper Mills Ltd. (a public sector undertaking), which is the only newsprint unit now in full production. This unit expects to enhance its production capacity from the present 30,000 tonnes to 75,000 tonnes by the end of 1970-71. The government also intends to establish two large units under the Paper and Pulp Development Corporation of India. Besides it has been proposed to start one newsprint factory in the private sector in U.P. near Gola Gokkaram Nath with a capacity of 30,000 tonnes per annum.

OF EDUCATION

# PETROLEUM INDUSTRY

TODAY, there is hardly an industry which does not use some kind of petroleum product. Some of the main products have the following uses.

Kerosene is used as an illuminant and a cooking fuel. Motor Spirit and Aviation Spirit are used as fuel by automobiles and aircraft respectively. High Speed Diesel Oil is used by trucks, buses and tractors. Furnace Oil is used in various industrial units including power generation. Mineral Turpentine is used as a base in paints and varnishes. Wax is used for manufacturing candles. Lubricants are used for lubricating machines. Bitumen is used in road making and for insulation. Chemicals produced from petroleum sources and generally known as petrochemicals are used for industrial and agricultural purposes.

Crude oil is processed in a unit called a refinery for obtaining various products. There are hundreds of products manufactured from crude oil.

The demand for petroleum products in India has been steadily growing with the years. Between the years 1948 and 1968, the total inland demand has increased from 2.24 million tonnes to 15.81 million tonnes, representing an annual average growth rate of about 10.25 per cent.

Individual petroleum products have been showing a rise in consumption over the years. Marked increases have been registered in the consumption of products like high speed diesel oil, furnace oil and naphtha.

The per capita consumption of petroleum in India is very low. The per capita consumption of some selected countries are given below: U.S.A. 3·38 K.L.; Australia 1·65 K.L.; Ceylon 0·122 K.L.; Burma 0·04 K.L.; India 0·03 K.L.

India's production of crude oil was about 5.67 million tonnes during 1967 and it rose to about 5.9 million tonnes in 1968. In order to bridge the gap between indigenous availability and the demand, India has to import crude oil from various countries.

During 1967 the crude throughput in refineries in India was 14·43 million tonnes. This rose to 16·1 million tonnes in 1968. A little over a third of this throughput will be based on indigenous crude. By the end of 1973, the refining capacity is expected to be about 27·3 million tonnes per annum.

### OIL EXPLORATION AND PRODUCTION

At present oil exploration and production in India are undertaken by three agencies: The Assam Oil Company, The Oil India Ltd., and the Oil and Natural Gas Commission.

The sedimentary areas in India exist to some extent in practically all States of the Indian Union and the area covers about 1.04 million square kilometres. The sedimentary regions also exist in the off-shore regions of India such as off Cambay and Kutch; off parts of Gujarat & Maharashtra States, off the Coromandel coast, Palk Straits and the Gulf of Mannar and areas around the mouths of Ganges and Mahanadi rivers; areas off the Kerala coast and the Andaman and Nicobar Islands. The Assam Oil Company and the Oil India Ltd., operate within the areas allotted to them in Assam State while the Oil and Natural Gas Commission is responsible for exploration over the remaining parts of the country. Technical training institutes have been set up by the Commission to train personnel required by its Directorates and Projects. In addition, the Commission has a Research and Training Institute at Dehra Dun. The activities of the three producing companies are briefly described below:

Assam Oil Company: The Assam Oil Company was formed as a result of the merger of the Assam Railway and Trading Co. and the Assam Oil Syndicate. Details of the above two Companies were given in the 1965-66 Directory. The current throughput of the Digboi Refinery is 0.5 million tonnes per year.

Assam Oil Company has drilled nearly 1,000 wells so far out of which nearly 600 are in operation now. The present rate of production of Assam Oil Company is of the order of 0.13 million tonnes.

Oil India Ltd.: The headquarters of the Company is at Duliajan in Upper Assam.

Oil India Ltd. has an authorised capital of Rs. 50 crores, divided into 500,000 shares of Rs. 1,000 each. In terms of an agreement signed in 1961, the Govt. of India and the Burmah Oil Company became equal partners in Oil India 14d

Oil India Ltd. has drilled upto Dec. 1968, 273 wells out of which 219 are oil or gas producing.

Oil India Ltd. proposed to drill 11 wells during 1969. This Company has already discovered crude oil reserves capable of sustaining an annual production of three million tons. This quantity of oil is committed for supply to Gauhati in Assam and Barauni in Bihar owned by I.O.C. and the Digboi refinery owned by A.O.C. in Assam.

#### OIL AND NATURAL GAS COMMISSION

The Oil and Natural Gas Commission has its Hqrs. at Dehra Dun. About 20,000 persons are employed on its staff. The Commission has eight Directorates — Geology, Geophysics, Drilling, Production, Inspection of equipment, Administration, Finance, Stores and Purchase and separate Departments of Mech., Civil and Transport, Research and Training Institute, Hind Oil Design Institute and Planning and Control Division.

Geological and geophysical surveys are carried out by the Commission in various parts of the country—Jammu & Kashmir, Punjab and U.P. foot-hills and plains, Bihar, Assam, West Bengal, Gujarat, Kutch, Rajasthan, the Cauvery basin in Tamil Nadu, the Godavari basin in Andhra Pradesh and coastal regions of Kerala and Andaman & Nicobar islands.

On the basis of results of geological and geophysical surveys, drilling has been in progress in a number of States of the Indian Union, particularly in Gujarat and Assam. As a result of this drilling, oil and gas have been found in a number of areas of which the most important are at present the Cambay gas field, the Ankleswar, Kalol and Nawagam oil fields in Gujarat, and the Rudrasagar and Lakwa oil fields in Assam. In Gujarat, commercial reserves of oil and gas have been proved and the same are being produced. In Assam the Rudrasagar and Lakwa fields, also have commercial reserves and after further drilling and testing will be put on commercial production. Up to Jan. 1969, a total of 525 wells have been drilled in Gujarat and it is estimated that these fields are capable of producing about 3.8 million tonnes of crude per annum. Based on these reserves, a refinery at Koyali, in Gujarat has been constructed which is owned by the I.O.C. and is at present operating at a throughput of about 2.75 million tonnes. Oil has been discovered by the ONGC in commercial quantity in two structures in Assam at Lakwa and Rudrasagar. Trial production from Rudrasagar and Lakwa fields has commenced. 107 wells have been drilled in Assam on ONGC's Structure by January 1969.

The Oil and Natural Gas Commission produced 2.78 million tonnes of crude during 1967 and 3.08 million tonnes in 1968-69. It earned a profit of Rs. 12.78 crores during 1968-69.

The Commission entered into an agreement with the National Iranian Oil Company for exploration and production of oil in certain off-shore areas in the Persian Gulf in collaboration with AGIP of Italy and Phillips of U.S.A. Drilling is still in progress. As a result of the drilling, oil has been struck on Rustam structure and ONGC's share after production is stabilised will be about 0.75 million tonnes per year.

#### PRIVATE SECTOR REFINERIES

The Digboi Refinery of the Assam Oil Company produced a total of 485,615 tonnes of petroleum products in 1968. Its annual throughput during 1968 was 0.52 million tonnes.

The two private sector refineries owned by Burmah-Shell and Esso are located at Trombay near Bombay while the Caltex refinery is at Vishakapatnam. The throughput of these refineries are: Burmah-Shell 3.77 million tonnes; Esso 2.55 million tonnes; Caltex 1.54 million tonnes during 1968.

#### **PUBLIC SECTOR REFINERIES**

The first public sector refinery at Gauhati was commissioned in January 1962. The refinery produced 0.83 million tonnes in 1968. The Rumanian Government have provided the necessary technical and financial assistance for the refinery.

The second public sector refinery at Barauni in Bihar was commissioned in the second half of 1964. The initial capacity of two million tonnes has been expanded to three million tonnes since Jan. 1969.

The foreign exchange cost and technical assistance for the Barauni refinery is being met out of the Soviet credit.

The third public sector refinery has been constructed at Koyali near Baroda in Gujarat and was commissioned in October 1965. Its initial capacity was two million tonnes and has been increased to three million tonnes since February 1967. The technical assistance and financial assistance has been supplied by the Soviet Union.

Cochin Refinery.—This is a participatory refinery project in the public sector, the principal collaborators with the Government being Messrs. Phillips International, U.S.A. It was commissioned on 23rd Sept. 1966.

The Refinery has been designed to produce annually 2.5 million tonnes of petroleum products.

The expansion programme of the refinery is expected to complete by the middle of 1972. This programme envisages increasing the processing capacity from 50,000 barrels per stream day to 70,000 barrels. The present investment is Rs. 28 crores.

Indian Oil Corporation Ltd.—This Corporation was formed by the merger of Indian Refineries Ltd. and the Indian Oil Company Ltd. A separate division of the Corporation called the Refineries Division is looking after the two public sector refineries at Gauhati and Barauni. With effect from April 1, 1965, the ownership of the Gujarat Refinery has also been transferred to the Indian Oil Corporation Ltd. (Refineries Division) from the Oil and Natural Gas Commission.

In order to meet the additional demand for petroleum products it has been decided to increase the refining capacity to about 27.3 million tonnes by the end

of 1973. The additional Refineries to come up are the Madras Refineries (commissioned in 1969 with a capacity of 2.5 million tonnes) which is a participatory project with Messrs. National Iranian Oil Co. and the American International Oil Co. while the Haldia Refinery will be built in collaboration with French and Rumanian agencies for which agreements have been signed in September 1967.

Lubrizol India Ltd.—With the growth and expansion of the petroleum industry, the demand for additives rapidly increased in the country. In order to meet this increasing demand and at the same time to conserve foreign exchange, the Government of India decided that additives should be manufactured indigenously. With this objective in view, negotiations were concluded with the Lubrizol Corporation of Cleveland, U.S.A. and on December 2, 1965 a Formation Agreement was signed. On July 20, 1966 Lubrizol India Ltd. was duly registered as a limited company. In the equity capital of the company, the Government of India holds 51 per cent and rest 49 per cent is held by the other partner.

The plant was commissioned in November 1968.

#### **PIPELINES**

Gauhati Product Pipeline.—This pipeline which is designed for the transport of petroleum products from Gauhati Refinery, was completed and commissioned in November 1964. The foreign exchange cost has been met out of ENI credit from Italy.

Barauni Kanpur/Haldia Pipeline.—This pipeline has been constructed for the transport of petroleum products from the Barauni Refinery to areas of consumption. The foreign exchange cost will be met out of ENI credit from Italy.

Gujarat Pipeline System.—The following pipelines for the transportation of crude oil, gas and products have been constructed: Cambay-Dhuvaran Gas Line; Ankleshwar-Uttaran Gas Line; Ankleshwar-Baroda Gas Line; Ankleshwar-Koyali Crude Line; and Koyali-Ahmedabad Product Pipeline. The foreign exchange cost was met out of ENI credit from Italy.

#### DISTRIBUTION

The consumption of petroleum products in 1968 was about 15.8 million tonnes which has been distributed through a wide distribution net-work in all parts of India.

At present the major oil distributing companies are Indian Oil Corpn. (wholly owned by the Government), Burmah-Shell, Esso, Caltex and the Assam Oil Company. These companies obtain their products from the refineries in India and also import certain amount of products for distribution.

With an annual turnover of about Rs. 400 crores, at present, the Corporation has become the largest oil marketing organisation in India. Its market participation in 1968 for major products was 43 per cent. During 1968-69 the sales of I.O.C. are estimated at about 8 million kilo litres.

### Export of Petroleum Products

Export touched a new peak of 738,862 tonnes during 1969, accounting for a foreign exchange earning of Rs. 10.76 crores. Out of this, the Indian Oil Corporation Ltd. exported 456,164 tonnes of the value of Rs. 6.26 crores.

#### o Prices

The price formulation adopted with effect from 1st February 1966 on the Report of the Working Group on Oil Prices, as notified from time to time, continued to govern the pricing of petroleum products during 1969 also. A Committee set up by the Government under the chairmanship of Mr. Shantilal H. Shah, M.P., to examine and report on the pricing arrangement to be adopted in replacement of the existing arrangement, submitted its report to the Government on Nov. 1, 1969. This is under Government's examination. A new scheme of prices of petroleum products based on location of refineries was approved by the Union Cabinet on April 30, 1970 on the basis of the recommendations of the Shantilal Shah Committee. States like Assam and Bihar, situated far away from ports and now paying a higher price than coastal areas, would be the major beneficiaries of the new price arrangement.

#### **MISCELLANEOUS**

A joint committee of the Government and representatives of the private oil industry known as Oil Advisory Committee was set up by the Government of India to study problems of supply, distribution and future demand of POL products in relation to indigenous production and refining capacity. In this way, a machinery has been set up for close and continuous consultation between the private and public sectors on matters of common interest. Representatives from the Government and oil industry are associated with the working of this Committee.

#### RESEARCH

Research is being conducted in all phases of the petroleum industry. The ONGC has set up a Research and Training Instt. at Dehra Dun with the help of the U.N. for research and training in the exploration and production phases of the industry. The Indian Instt. of Petroleum in Dehra Dun was set up under the control of the Council of Scientific and Industrial Research to conduct research and training in the refining and marketing phases of the industry.

#### BURMAH-SHELL REFINERIES LTD.

Burmah-Shell Refineries Ltd. commenced operating a petroleum oil refinery at Trombay on January 30, 1955.

The crude oil intake of the Refinery is at present about 3.75 million metric tons per annum; the crude oil comes from the Persian Gulf area.

The Refinery manufactures motor spirit, kerosene, aviation turbine fuel, high speed diesel oil, light diesel oil, jute batching oil, fuel oil, bitumen, liquefied petroleum gas and special boiling point solvents.

The total cost of the Refinery was about Rs. 26 crores and the total number of employees engaged in the various categories at present is around 1,375.

Residential quarters for key operating staff have been provided at a short distance from the refinery, and in addition, Burmah-Shell Refineries Ltd. have paid Rs. 40 lakhs to the Maharashtra Government for the provision of houses for Refinery labour employees and their families in the Chembur-Ghatkopar area. Other employee amenities include a modern canteen with mobile services, a medical centre and an employee sports club.

#### CALTEX OIL REFINING (INDIA) LTD.

The Caltex Oil Refinery is located at Visakhapatnam. Its products include petrol, Aviation Jet Fuel, Liquefied Petroleum Gas, Mineral Turpentine, Kerosene, Diesel Oils and Fuel Oils from the Refinery's flexible two-stage crude oil distillation unit, the fluid catalytic cracking unit with gas recovery facilities, the propane decarbonisation unit and treating and blending plants. Other products like Petroleum Naphtha and Asphalt are also made available.

The Refinery is capable of processing over 1.5 million tonnes of crude oil per annum,

#### **ESSO REFINERY**

The Refinery is situated on Trombay island, near Bombay, costing about Rs. 17.5 crores. The refinery is capable of running 62,000 barrels of crude oil per stream day nearly 3.1 million tons a year of crude oil.

Initially the Refinery was designed to process 25,000 B/CD of crude from the Middle East. Besides stepping up refining capacity, new products such as bitumen, jute batching oil, solvents and liquefied petroleum gas were introduced to meet the growing needs of the country and save foreign exchange. The Esso Bombay Refinery saved foreign exchange of over Rs. 102 crores during its fourteen years of operation.

#### LUBE INDIA LIMITED

Administration Building, Corridor Road, Mahul, Bombay-74 AS.

Lube India Limited, jointly owned by Esso Standard Eastern, Inc. and the Government of India on a 50-50 basis, was formed under the terms of the Lube Refinery Agreement of September 15, 1965, with the purpose of setting up a refinery for the manufacture of lubricating oil base stocks.

The authorised capital of the Company is Rs. 5.5 crores, and the issued and subscribed capital is Rs. 4.8 crores.

The Lube Refinery will manufacture 164,000 tonnes per annum of lubricating oil base stocks including 17,000 tonnes per annum of transformer oil base stocks.

The lube base stocks and the transformer oil base stocks will be distributed as follows:—

- \* Fifty per cent of the lube base stocks will be sent to Esso Blending Plant at Mazagaon, Bombay.
- \* The remaining fifty per cent of the lube base stocks will be sent to Indian Oil Blending Limited, Bombay.
- \* The transformer oil base stock will be sent to the neighbouring Special Oils Refinery of Power Cables.

When in full operation, the Lube Refinery will save for the country foreign exchange to the extent of approximately Rs. 6-3 crores per annum.

Chairman: M. L. Gauba; Managing Director: E. D. Gray.

### PLASTICS INDUSTRY

THE principal plastics producing countries are the U.S.A., Britain, Germany, Japan, France, Italy and the U.S.S.R. The Indian plastics industry was developed after the Second World War and it is centred mostly in the areas of Bombay, Amritsar, Bangalore, Delhi, Kanpur and Madras. There are over 200 organised units in addition to numerous smaller units in the small-scale and cottage ndustries sector.

A major part of the processing section of the plastics industry is in the small-scale sector. Its contribution towards exports has also been considerable. In fact, in the first seven months of 1968-69 (April-October), the small-scale sector accounted for one-third (Rs. 1.07 crores) of the total value of exports of Rs. 3.04 crores.

The articles now manufactured, cover a wide range of household consumer and utility items, electrical accessories, telephone equipment, packing materials, spectacle frames, hand-bags, gramophone records and wide varieties of other such items. One of the sensational uses of plastics was made in the world's first colour-printed plastic newssheet which appeared on Italian news-stands.

In spite of the impressive growth of the plastics industry, the per capita consumption of plastics in India has been meagre. At 0·1 kg. it compares very poorly with that of 32·8 in West Germany, 29·5 in the United States, 16·7 in Japan, 16·4 in France, 15·8 in Britain and 14·6 in Italy.

India, also occupies a low rank in the production of plastics and resins in the world (Table I below).

TABLE I PRODUCTION OF PLASTICS AND RESINS

(in '000 metric tons)

Year			U.S.A.	U.K.	U.S.S.R.	Italy	India	France	Germany, Fed. Re- public of	Germany Eastern	World Total
1958			2,113.3	397-9	258-0	181.7	3.4	231.6	622-2	99.5	4,660
1960		-	2,849.6	566-1	332.0	345.8	6.2	347.0	982-2	115.1	6,860
1962			3,602.3	662.9	473.0	572.6	20.3	448.0	1.256 - 7	160.8	9,210
1964		100	4,582.7	883-4	698-7+	812-1	31.1	611.0	1.754.0	203.7	12,790
1966	1	1	5,300-2	10,170.0	974.4	1,065.0	39-4	800-0	2,292.0	249.6	16,570

Source: Statistical Year Book (U.N.O.-1967).

† Data not strictly comparable with previous year.

Note: The data refer to the production of the thermoplastic and thermosetting resins and plastic materials obtained by chemical transformation of natural organic substances or by chemical synthesis.

Production of plastics during the Third Plan, though envisaged to reach 74,000 tonnes, amounted to only around 37,000 tonnes due to many unfavourable reasons, such as armed conflicts with Pakistan and China, failure of the monsoon, etc. The production of plastic raw materials which amounted to 17,628 tonnes in 1962 increased to 37,189 tonnes in 1965 (20,328 tonnes in 1963, and 29,307 tonnes in 1964). A break-up of the production of plastic raw materials during 1966, 1967 and 1968 is shown below:

(Production in tonnes)

Raw material	1966	1967	1968 (Estimated)
P. F. Moulding Powder U. F. Moulding Powder	3,823 1,127	3,750 1,342	4,700 1,500
Melamine formalde- hyde powder	60	51	60

In tonnes

Raw material		1966	1967	1968 (Estimated)
Polystyrene		5,791	5,591	6,500
L. D. Polyethylene	44	14,129	9,751	17,000
H. D. Polyethylene				5,000
P. V. C. Resin		10,796	13,611	14,000
C. A. Acetate		692	1,000	900
Total		36,418	35,096	49,660

The plastics industry contributes in a large way to the exchequer by way of excise duty which at Rs. 1·6 crores in 1962-63 was expected to reach Rs. 14 crores in 1968-69. It amounted to Rs. 10·5 crores in 1967-68 (Table below):

Rs. lakhs

		Year				Excise Duty Collected
1961-62		7. A			HAVE	111.0
1962-63		SYNCE	Pris.			157.7
1963-64					1.1	249.5
1964-65			1860			540.1
1965-66		bx				584.2
1966-67						666-7
1967-68				1		1,050.0
1968-69 (estimated	d)					1,400.0

The import policy for the year 1968-69 continued to be need-based and production-oriented. The import of plastic raw materials since 1962-63 is given below:

			Impo	orted	
Year		1 801	Quantity tonnes	Value (Rs. lakhs	
1962-63	19		19,506	6.48	
1963-64			12,704	4.71	
1964-65			16,305	6.10	
1965-66	3		14,593	5.80	
1966-67			11,795	6.27	
1967-68			32,158	13.16	
1968-69	Line Late	1-300	29,652	13.54	
(11 month		-			

Plastic goods exported from India include fountain pens, spectacle frames, combs, beads, bangles, poly-line jute

bags, PVC products, PVC rubber cloth, etc. A trend in the exports of plastic goods is given below:

		Year				Plastic goods exported (Rs. crores)
1965-66		-5-646		100	- 70.00	2.7
1966-67			Var.			3.8
1967-68	100					3.3
1968-69						6.2
1969-70	1800					4.5
(six mont	hs)				2 2	Control of the last of the las
1970-71		tted)	llaylar II			12.0
1973-74	,,,	Tristant Co.				20.0

Capital Investment: It is estimated that, at the beginning of the new Fourth Plan, capital investment in raw materials section will be of the order of about Rs. 80 crores and in the processing sector about Rs. 25 crores. In order to build up an additional capacity of 1,40,000 tonnes by 1973-74, an investment of about Rs. 70 crores may be necessary, of which about Rs. 20 to Rs. 25 crores may be in the form of foreign exchange. Proportionate expansion in the processing sector may need additional investment of about Rs. 20 to Rs. 25 crores.

Consumption and Demand: Consumption of plastics in India, compares very poorly with other leading plastics producing countries in the world. Consumption of plastics in 1968-69 has been estimated at 76,000 tonnes against 52,000 tonnes in 1966. The licensed capacity of raw materials (1969) stood at 1,08,490 tonnes against the installed capacity of 1,57,870 tonnes.

Demand for plastic raw materials by 1973-74 is expected to reach 2,34,200 tonnes per annum (Table below):

	Name of selected raw materials	Demand (tonnes per annum)			
	materiais —	1968-69	1973-74		
1.	P. F. Moulding powder	4,000	7,000		
2.	U. F. Moulding powder	1,800	4,000		
3.	U. F. Resins	5,500	8,000		
4.	Phenolic resins (includ-		The second second		
	ing laminates)	4,000	8,500		
5.	L. D. Polyethylene	25,000	65,000		
6.	H. D. Polystyrene	5,000	20,000		
7.	Polystyrene	8,000	25,000		
8.	P. V. Č. Resin	20,000	60,000		
9.	Cell. Acetate M. powder	1,000	3,000		
10.	Polyvinyl Acetate	3,000	5,000		
11.	Polypropylene	1,500	7,000		
12.	Acrylic (monomer/	No. of the last of			
	moulding powder/sheet)	2,500	5,000		
	otal of all raw materials luding the above materials)	86,000	2,34,200		

Source: Chemical Age of India, December, 1969.

### STEEL INDUSTRY

THE Indian Steel industry consists of basic producers who convert iron ore into steel and re-rollers who manufacture finished steel from billets or scrap. The main producers in the country are (1) Hindustan Steel, (2) Tata Iron and Steel, (3) Indian Iron and Steel and (4) Mysore Iron and steel.

The steel works of TISCO commenced operations at

Sakchi in 1908. Later in 1918, Indian Iron and Steel started operations at Haripur. In 1921 Mysore Iron and Steel came into existence at Bhadravati. The largest steel producing unit in India viz., Hindustan Steel was established in 1954, in the public sector.

Rapid strides have been taken in the field of steel production in recent years.

#### Production of Saleable Pig Iron & Finished Steel

('000 tonnes)

		10					Pig Iron			Finished Ste	el
		Produc	cer		L	1967	1968	1969	1967	1968	1969
TISCO			71 700			1.0	0.9	1.3	1,015.0	1,003.1	1,018-3
IISCO			CALL STATE			177.5	325.3	331.1	489.6	494.3	471.2
Mysore									58.3	75.7	57.3
Rourkela						. 58.9	122.7	127.0	582.5	716.2	731.0
Bhilai						635.5	612.7	634 · 4	660.0	854-1	1,055.9
	••					210.8	373 · 8	399.0	380.6	332.8	409.9
Durgapur	**	Contract of		13.00		24.2	26.8	62.7	976.8	970.0	1,303.3
Others					• •	44.4	20 0	02 1	010 0	010 0	1,000 0
Total		8				1,107.9	1,462.2	1,555.5	4,162.8	4,476.3	5,046.9*

Source: Report 1969-70, Ministry of Steel and Heavy Engineering.

The recent trend in production (category-wise) is given below:

Production (lakh tonnes)

	AZE CONTRACTOR			1968-69
Category	1965–66	1966-67	1967-68	(April- Dec.)
Pig Iron	 70.93	70.03	68.89	52.65
Ingot Steel Semi-finished	 65-26	65.97	63.31	48.06
Steel for sale	 10.49	13.66	14.37	8.00
Finished Steel	 45.1	44.89	40.52	34.2

# Production of Finished Steel (Category-wise) (Lakh Tonnes)

1964-65	1965-66	1966-67	1967-68
12.57	13.09	11.65	11.81
9.79	10.03	7.64	7.23
16.74	16.94	19.07	15-67
2 · 26	2.46	2.33	2.33
1.28	1.27	1.15	1.04
2.45	2.26	3.05	2.44
45.08	46.04	44.89	40.52
	12·57 9·79 16·74 1 2·26 1·28 2·45	12·57 13·09 9·79 10·03 16·74 16·94 1 2·26 2·46 1·28 1·27 2·45 2·26	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Notable success has been achieved in the exports of iron and steel and this is the largest foreign exchange earner among the non-traditional items. India exports iron and steel to as many as 55 countries. Exports in 1966–67 amounted to Rs. 20 crores, in 1967–68 Rs. 52·5 crores and in 1968–69 it was about Rs. 70 crores.

Imports of iron and steel and ferro alloys in 1966-67 amounted to Rs. 77.8 crores and in 1967-68 Rs. 92.7 crores. In 1968-69 it was expected to be around Rs. 70 crores.

Details of the major iron and steel manufacturing units are given below:

The demand, production and availability (at 90% capacity utilisation) for the end of 4th and 5th Plans are as follows:

(Million tonnes)

			(minor	L'UCITION	
	1973-	-74	1978–79		
	Finished Steel	Pig iron	Finished Steel	Pig iron	
Domestic de-		Co Donal			
mand	7.12	1.95	10.97	2.62	
Exports	1.30	1.00	1.80	1.50	
Total	8.42	2.95	12.77	4.12	
Existing Capa- city: (a) Main pro-					
ducers (b) Secondary	6.69	1.17	6.69	1.17	
producers	0.36	0.10	0.36	0.10	
Total	7.05	1.27	7.05	1.27	
Availability at 90% utilisa-					
tion	6.35	1.14	6.35	1.14	
Gap	2.07	1.81	6.42	2.98	

Hindustan Steel: Hindustan Steel is the largest corporate unit in India. Total assets at the end of March 1968 amounted to Rs. 1,098 crores. Equity capital was Rs. 502 crores and Government loans Rs. 521 crores.

HSL owns three main steel plants at Rourkela, Bhilai and Durgapur, an alloy steel plant at Durgapur, a fertilizer unit at Rourkela and coal washeries (For more details see article "Government Industrial Undertakings.")

Tata Iron and Steel: The factory and township are situated at Jamshedpur in Bihar. Total assets of the company at the end of March 1969 aggregated Rs. 175 crores. The present installed capacity is for the production of 20 lakh ingot tonnes (i.e. about 15 lakh tonnes of saleable steel). The total production of saleable steel in 1968-69 was 14·7 lakh tonnes. The company is expanding its coal raising facilities. The production of clean coal is expected to reach 3 lakh tonnes soon.

Indian Iron and Steel: The works are situated at Burnpur and Kulti in Asansol district, West Bengal. The Burnpur township is also owned by the company.

Total assets at the end of March 1969 amounted to Rs. 116 crores. The installed capacity is for 10 lakh ingot tonnes. Expansion schemes are under way for raising the capacity to 13 lakh tonnes. Production of saleable steel in 1968-69 was 6.4 lakh tonnes.

<sup>·</sup> Provisional as the production of the units which have not supplied data has been estimated.

#### BOKARO STEEL

Bokaro Steel plant is situated at Maraphari in Dhanbad district, Bihar. (See under article "Government Industrial Undertakings" for details).

#### **NEW PLANTS**

The Prime Minister, Mrs. Indira Gandhi announced in Parliament on April 17, 1970 that three new steel plants would be set up in the South—one each in Andhra Pradesh, Mysore and Tamil Nadu. The Andhra Pradesh and Mysore plants will be located in Vishakapatnam and Hospet respectively and will produce mild steel, while the Tamil Nadu plant to be set up in Salem, will produce special steel. Work on all the three plants will start during the Fourth Plan period and these will be based on Indian designing and will be built wholly by Indian engineers.

#### Re-rolling Industry

The steel re-rolling mills are a complement to the main steel works which produce iron and steel in basic shapes and sizes. The re-rolling mills shape these products further into new sections by rolling. For this purpose they take in billets. There are also re-rollers who use re-rollable scrap. The production range of re-rolling industry includes bars, high structurals, re-inforcement rods, wire-rods, hoops, window bars, railway equipment and electric furnace special steels.

There are at present nearly 250 billet or scrap-based re-rolling mills in the country, of which 15 are in the organised sector. Production of these units in 1967-68 came to 6.55 lakh tonnes. In addition to this, there are about 300 units in the small sector.

The annual capacity of the re-rolling mills on two-shift basis is 469 lakh tonnes, comprising 276 lakh tonnes billet re-rollers, 73 lakh tonnes scrap re-rollers and 120 lakh tonnes other mills.

A technical committee appointed by the Government in 1966 had reported that, taking the overall capacity in the country as a whole, there was no scope for creation of new re-rolling capacity. Government has accepted this recommendation. However, proposals to set up new mills in deficit areas are considered on merits.

Wire Drawing Industry: In order to promote the development of the indigenous wire drawing industry for the production of special and thin wires hitherto imported, it has been decided to delicense the manufacture of special wires of all gauges and other wires thinner than 16 gauge. Indigenous capacity is now available for the production of both dry and wet type wire drawing machines. The availability of high carbon wire rods has also increased with the commissioning of the Bhilai Wire Rod Mill.

Ingot/Billets: The production of ingot/billets from scrap by using electric furnaces, together with or without continuous casting units has been delicensed. Raw materials as well as equipment are available indegenously.

Pig Iron: There are about 2,500 ferrous foundries in the country working mostly on single shift basis with an aggregate capacity of 240 lakh tonnes of castings.

During 1967-68, 122 lakh tonnes of pig iron was produced for sale exports amounting to 6.27 lakh tonnes. During the first nine months of 1968-69, total production was 109 lakh tonnes and exports 8.0 lakh tonnes. The demand for pig iron is 1969-70 was expected to be 113 lakh tonnes. As against this, the approved capacity stood at 396 lakh tonnes, the integrated steel works accounting for 191 lakh tonnes.

#### Iron Casting

#### (i) Malleable Iron Castings

The present licensed capacity in the organised sector of the industry is 1·22 lakh tonnes, of which a capacity of 23,800 tonnes has been installed. In addition to this, a capacity of 46,070 tonnes has been covered by foreign exchange allotments.

The main items produced by the established malleable iron foundries are automobile castings, pipe fittings, railway components, insulators and jute mill spare parts.

#### (ii) Grey Iron Castings

Demand for grey iron castings is quite high, forming 95 per cent of the total demand for iron castings. However, production is comparatively low.

The total licensed capacity is 6.86 lakh tonnes of which a capacity of 6.24 lakh tonnes has been installed. Production of iron castings in 1967 was 2.83 lakh tonnes and in 1968, two lakh tonnes.

#### DEMAND FOR IRON CASTINGS IN 1970-71

('000 toppes)

		-	ood comines)
Non-pipe castings			
Grey iron castings	STATE OF STREET	1000	2,257
Ductile and alloy iron casti	ings		8
Malleable iron castings .			25
Total			2,290
Pipe castings			
Cast iron spun pipes .			220
Vertically-cast pipes .			180
Total			400
Grand Total			2,690

Eight major steel pipe manufacturing companies are (1) Ambika Steel Tubes, (2) Bharat Steel Tubes, (3) Gujarat Steel Tubes, (4) Indian Tubes, (5) Jayant Tubes, (6) Jindal Tubes, (7) Kalinga Tubes and (8) Zenith Steel Pipes. The home demand is estimated to be 175,000 tonnes, while the capacity has shot up from 225,000 tonnes to 350,000 tonnes.

The Century Spg. & Mfg. Co. proposes to manufacture seamless steel pipes. The project is estimated to cost Rs. 15 crores with an annual capacity of 88,000 tonnes. The plant is to be set up in two stages. In the first stage, the plant will have a capacity of 44,000 tonnes.

#### Alloy, Tool and Special Steel

The present production of alloy and special steels is far from satisfactory, In 1968-69 only 43,000 tonnes of alloy and special steels (excluding electrical steel) were produced (against a target of 2 lakh tonnes). Production of electrical steel sheets was about 28,000 tonnes during the year. The ordnance factories also produced certain quantities of alloy steels.

The present licensed capacity for manufacturing alloy steels (excluding electrical steel) is 4.33 lakh tonnes, of which only 0.5 lakh tonnes have been installed. The targets for the capacity and production in 1973-74 have been estimated at 2.94 lakh tonnes and 2.70 lakh tonnes, respectively.

#### Stainless Steel

The alloy steel plant at Durgapur is the main producer of stainless steel. During 1967-68 the plant produced

1,000 tonnes stainless steel. The output was expected to reach around 20,000 tonnes in 1969-70. This will be raised to 42,000 tonnes after the completion of the second stage of the plant's expansion. Madras Stainless Steels Ltd., a private sector firm has been recently given licence to manufacture 7,000 tonnes per annum.

There are at present over 400 units producing stainless steel articles, in the country. They are principally the manufacturers of utensils, dairy machinery and scientific and surgical instruments.

The estimated demand for stainless steels in 1970–71 is 21,000 tonnes.

#### **Electrical Steel**

Total production of electrical steel sheets in 1968-69 was 28,000 tonnes.

Capacity for dynamo grade electrical steel sheets at the TISCO works is being expanded from 30,000 tonnes to 42,000 tonnes. A capacity of 50,000 tonnes of hot rolled electrical steel sheets has also been established at Rourkela.

#### Raw Materials

Iron-ore is the chief raw material from which steel is produced. Coking coal and lime stone come next in importance. The quantity of the principal raw materials required per tonne of finished steel is given below:

Raw material				Quantity (tonnes)
Coking Coal		0.00		 1.565
Iron Ore				 1.913
Maganiferous ore an	d mar	ganese	ore	0.130
Blast furnace flux				 0.509
Open hearth flux				 0.057
Ferro alloys		Ale.		 0.017
Raw dolomite			7	 0.090
Burned manganite				0.009
Refractory bricks				 0.026
Other refractories				0.017
Steam coal	vette	UIT A TAIR		0.368

India has a large supply of these raw materials. There are about 25,000 million tonnes of good quality iron-ore deposits. Another advantage is that most of these raw materials are available in the same belt and naturally most of the steel plants have come up in the same area. Although the reserves are quite high, the quality of many of the raw materials is not satisfactory.

### TEA INDUSTRY

TEA is the second largest single item exported from India. With a production of 401.5 million kg. in 1968 and an expected production of 415 million kg. in 1969, the country is the leading producer of tea in the world. Also, in terms of area and yield, India ranks first among any other tea producing country. Table I below gives various details pertaining to the industry.

Despite higher production each year, total foreign exchange earnings from tea has declined steeply on account of a fall in the unit value of exports. The table below gives a trend in the export performance since 1964:

Year	Quantity exported (Million kg.)	Value in Rs. crores	Unit value per kg. in Rs.
1964	210.5	124.90	5.93
1965	199.4	114.97	5.77
1966	179-2	137.52 (98.84)	7.67 (5.52)
1967	213.7	189.04 (120.02)	8.85 (5.62)
1968	208.4	166.48 (105.70)	7.99 (5.07)
1969	176.0*	130.00*	7.50

Note: — Figures in brackets relate to values in pre-devaluation Rupees. \* Estimated.

On financial year basis also exports of tea have registered a decline during 1968–69. The total quantity of tea exported during 1968–69 was 200·8 million kg. compared to 203·3 million kg. in 1967–68 and 190·4 million kg. in 1966–67. The foreign exchange earnings during 1968–69, 1967–68 and 1966-67 in pre-devaluation rupees were Rs. 99·37 crores, Rs. 114·41 crores and 102·26 crores respectively. The shortfall in exports during 1968–69 is thus much smaller than on the calendar year basis. In terms

of money, India earned about Rs. 15 crores (pre-devaluation) less in both calendar year as well as financial year basis but the decline in quantum of exports on the financial year basis has not been as steep as the decline in foreign exchange earnings.

During 1968-69 there was a big set-back in our exports to the U.K. and U.A.R. As against this, exports to other countries were maintained at a satisfactory level (Table below).

Countries	See and	and the same of the	exported 00 kg.)	Value in Rs. crores		
		1967-68	1968-69*	1967-68	1968-69*	
U.K		1,06,491	95,526	99.81	76.46	
U.S.S.R.		20,029	20,964	19.80	19.38	
U.A.R		14,222	10,459	9.20	6.32	
U.S.A		8,302	7,834	6.83	5.66	
Sudan		8,943	10,504	5.85	5.96	
Afghanistan		5,824	10,890	4.30	7.26	
Canada		3,767	3,768	3.25	2.84	
Tunisia		2,649	2,329	1.63	1.22	
Australia		5,797	5,504	4.22	3.62	
Irish Republic		6,371	7,011	5.73	5.21	
East Europes countries	an	3,616	3,594	2.90	2.60	
Other countries	1	17,322	22,441	16.67	19.98	
TOTAL		2,03,333	2,00,824	180-19	156-51	

<sup>\*</sup> Subject to revision.

The internal and external prices during 1967, 1968 and 1969 are given in the following table:

		Annual average prices in Rs. per kg.			Annual average prices in sh. and pence per kg.						
		Calcutta	Coehin		Nort	North India		South India		Total India	
Year	Leaf	Dust	Leaf	Dust	Sh.	d.	Sh.	d.	Sh.	d.	
1967	5.98	4.86	5.79	5.04	9	10.48	7	9.65	9	8.19	
1968	5.47	5.03	5.26	4.67	8	11.28	7	9.17	8	9.89	
1969*	6.68	5.16	5.16	4.70	6	10.30	5	6.79		n.a.	

<sup>.</sup> Prices are upto September 19, 1969 for Calcutta and Cochin markets, and as at the end of July 1969, for London auctions.

#### **Budget Proposals**

Among the various budget proposals for 1970-71, export duty on tea, has been abolished altogether. Excise on loose and package tea has been raised, with ad hoc rebate on exports at rates varying with price. Abolition of export duty will result in a loss of Rs. 9.75 crores for the financial year 1970-71.

The excise duty on tea is being raised in order to release larger quantities for export particularly of quality teas. There will be no increase in the duty on loose tea produced in Zone one and only a marginal increase of 10 paise per kilo on tea produced in Zone two. For other zones, the increase varies from 45 paise to one rupee per kilo. After allowing for the rebate on export, there will be an additional revenue of Rs. 7.87 crores which will be more than offset by the loss in revenue from abolition of the export duty on tea.

#### Internal Consumption

Internal consumptior of tea in India has been steadily rising since 1953–54, although, there has been a decline in 1967–68. Internal consumption in million kgs. during 1953–54 to 1968–69: 1953–54 (82·7); 1962–63 (135·7); 1963–64 (140·7); 1964–65 (149·0); 1965–66 (166·0); 1966–67 (185·4); 1967–68 (180·7) (provisional); 1968–69 (192·8) (estimated).

On calendar year basis also, home consumption increased from 128·2 million kgs. in 1960 to 197·8 million kgs. in 1968. Thus, if we take a conservative estimate of 6 per cent rise in internal consumption, the following increases in internal consumption in million kgs. can be estimated over the coming years: 1969-70 (204·4); 1970-71 (216·6); 1971-72 (229·6); 1972-73 (243·3).

Table I. TEA INDUSTRY

Iten	ns				1966	1967	1968*
Area in hectares				India Cevlon	3,45,256 2,41,372	3,47,653 2,42,331	3,51,065 2,41,795
Yield (kg. per hectare)		0.00		 India Ceylon	1,089 921	1,107 911	1,144 930
Production (million kg.)				World India	1,146·0 376·0	114·0 384·8	1,189·0 401·5
Percentage share to world	produ	iction		Ceylon India Ceylon	222·3 32·8 19·4	$220 \cdot 7$ $33 \cdot 7$ $19 \cdot 3$	224·8 33·8 18·9
Registered No. of estates	† ·			N. India S. India India	2,522 8,301 10,823	2,525 8,336 10,861	2,529 8,372 10,901
Export (million kg.)		10.00	100	 World India	566·4 179·2	610·7 213·7	621·2 208·4
Percentage share in expor	t			 Ceylon India Ceylon	$ \begin{array}{r} 200 \cdot 0 \\ 31 \cdot 6 \\ 35 \cdot 3 \end{array} $	$   \begin{array}{r}     216 \cdot 5 \\     35 \cdot 0 \\     35 \cdot 5   \end{array} $	208·7 33·5 33·6

<sup>·</sup> Provisional. † As on 31st March of each year.

Source :- Tea-Board, 1968-69.

### TEXTILE INDUSTRY

THE cotton textile industry is the largest single industry in the country. India holds the third place among the countries of the world in its capacity for yarn and cloth based on mechanical equipment and stands second on the basis of cotton consumption.

In addition to providing means of livelihood for nearly 10 million handloom weavers, the mill industry provides direct employment to nearly 7,59,000 workers.

The total number of mills in the country in June 1969 was 650, the number of spindles installed 17.52 million,

of looms 2,07,867. The average number of workers employed daily in all shifts was 7,43,131 and the consumption of raw cotton (in bales of 180 kg. each) was 5,13,757.

The paid up capital is estimated at Rs. 190 crores and the annual value of the output amounts to Rs. 800 crores.

### FOURTH FIVE-YEAR PLAN

The Planning Commission has decided that the Fourth Five-Year Plan is to start from 1969 and the draft has been approved with certain modifications.

The following table gives details about the distribution of mills in India as in June 1969.

State/ Union Territory		No. of mills in existence	Spindles installed	Looms installed	Average No. of workers employed daily in all shifts	Consumption of raw cotton (In bales of 180 Kgs.)
Andhra Pradesh	E FOREIG	. 30	4,75,684	1,275	14,701	14,350
Assam	. 198	. 2	23,040	Sebugar of the sec	1,204	1,165
Bihar		. 5	50,944	225	1,686	1,723
Gujarat	· Charles	. 116	36,14,125	62,984	1,54,334	93,232
(a) Ahmedabad City	Delay de la	TO	24,85,048	46,267	1,17,499	68,840
(h) Doct of Christat		10	11,29,077	16,717	36,835	21,170
TT	12 - 15	. 9	2,06,244	978	9,589	11,568
Tommer & Washing		THE RESERVE OF THE PARTY OF THE	12,600	AN COUNTY OF SAME	THE THE PARTY OF THE	
Variation		0-	3,78,036	1,088	10,599	7,077
Madhan Dandach		00	6,45,937	13,036	46,050	27,903
Mahanaahtna	A TANK	00	45,72,505	78,183	2,33,103	1,29,047
(a) Dombon Otto		20	35,54,500	63,055	1,82,889	99,641
(b) Rest of Maharashtra			10,18,005	15,128	50,214	29,406
Musore		97	6,69,296	6,050	29,524	22,975
Origan			1,00,180	866	5,488	3,694
D		0	1,29,174	1,300	7,763	9,243
Painethan	3 7 7 7 1	10	3,43,442	3,062	15,764	16,627
Tomil Noda	Law S	000	40,73,212	9,248	92,421	99,413
Titton Dundoch		20	9,70,444	13,481	47,582	33,886
(a) Kannun		14	5,23,418	11,323	32,891	19,222
(I) TO CTT TO		10	4,47,026	2,158	14,691	14,664
West Rangel	10134	47	9,41,662	9,899	45,569	23,653
Dalhi			1,94,712	3,849	20,116	12,012
Pondichower	:	The same of the same of	1,21,608	2,343	7,638	6,189
TOTAL		650	1,75,22,845	2,07,867	7,43,131	5,13,757

PRODUCTION

The actual production of yarn and cloth by the mills sector is as follows:-

Year			Yarn in			Cloth in '0	00 metres		A THU	
	Teal	1 Gal		'000 kg.	Coarse	Medium B	Medium A	Fine	Superfine	Total
1965				9,39,236	8.02.623	14,04,025	18,40,351	2,19,540	3,20,927	45,87,466
1966				9,00,980	7.19.592	11,30,587	18,61,860	2.08,867	3,17,977	42,38,883
1967				8,96,417	6,82,844	11,44,077	17,68,139	1,70,198	3,32,278	40,97,536
1968	10.00	1.0		9,60,912	7,08,852	12,74,299	18,22,157	2,07,858	3,52,925	43,66,091

The year saw lower production both in cotton cloth and yarn—the former dropping 3.9 per cent from 4,366 million metres in 1968 and the latter by 1 per cent from 961 million kg.—in contrast to the rise during 1968 over the previous year of 269 million metres in cloth production and 65 million kg. in yarn manufacture.

Despite the lower production, cloth stocks with the mills at the end of 1969 stood at only 11,000 bales lower than the 1968 end figure of 2,68,800 bales and yarn stocks fell to 85,800 bales from 1,28,100 bales during the same period.

The cotton yarn exports in 1969 had leapt from 165.4 lakh kg, valued at Rs. 10.68 crores to a record 338.3 lakh kg. valued at Rs. 24.39 crores.

Cotton piece-goods exports fell from 4,751 lakh sq. metres to 4,127 lakh sq. metres, bringing in Rs.  $4\cdot12$  crores less than in 1968 despite better price realisation. British and Indonesian imports declined. But European countries, especially West Germany, France, the Scandinavian countries and the East European countries purchased more Indian cloth.

During 1968, the cotton consumption by mills was  $62 \cdot 21$  lakh bales of 180 kgs. each of which, Indian cotton accounted for  $54 \cdot 59$  lakh bales and foreign cotton for  $7 \cdot 62$  lakh bales.

Unsold stock of cloth with the mills at the end of 1968 was 403 million metres equivalent to about 34 days' production. The stock shows a fall from the level of 384 million metres at the end of 1967.

Third-Shift Working: The daily average number of spindles worked in each of the 3 shifts during 1965 to 1968 are as shown in the table given below.

						III IIIIIIIIIII
	1	N. C.	Trans.	1st Shift	2nd Shift	3rd Shift
1965	100.00			13.3	13.4	10.0
1966				13.3	13.2	9.9
1967				13.9	14.0	11.1
1968				13.5	13.9	11.1

So far as looms are concerned the shift-wise working is given in the table below:

Daily average number of looms worked in

	Sec. 211		1st Shift	2nd Shift	3rd Shift
1965	40.000	Charles .	1,84,822	1,80,326	61,599
1966			1,81,474	1,76,478	63,396 66,242
1967 1968			1,82,008 1,75,306	1,77,753 1,71,856	70,123

#### COMMITTEE FOR COTTON TEXTILE INDUSTRY\*

The Government of Maharashtra has appointed a Committee under the chairmanship of Mr. S. V. Kogekar, in October 1967 to make a comprehensive enquiry into the present situation of the Cotton Textile Industry in the State.

The terms of reference of the Committee are: (i) To examine fully the present situation of the Cotton Textile Industry in the State in all its aspects; and (ii) To make a report to the Government on: (a) Reasons for its present state; and (b) Measures to be taken to put it on an even keel.

The work of the Committee is over and its report has been submitted to the State Government.

#### CENTRAL WAGE BOARD

The majority recommendations of the second wage board for the cotton textile industry have been accepted by the Union Government.

It has been decided that the wage board's recommendations should remain operative for five years, with effect from January 1, 1969. During this period, there should be no claim for a revision of matters covered by the recommendations in those establishments which implement these fully. Agreements for implementation of the recommendations of the Wage Board are reported to have been arrived at in Gujarat, Maharashtra, Tamil Nadu and West Bengal where the bulk of the industry is located.

#### COTTON

The statistical position of cotton in India during the season 1966-67 is summed up in the following table:—

(In lakh bales)—(Bales of 180 kg.)

Stocks carried ov vious year (Ind				10.85
Actual production	ı	1		49.31
			F	7.82
Cotal consumptio	n:			
Indian		A NOTE		51.82
Foreign				5.81
Total export	ASSESSED BY			2.45

#### HANDLOOM CLOTH

(See under "Cottage Industries").

#### AMBAR CHARKHA

(See under "Cottage Industries").

#### EXPORTS

The following table gives the sea-borne export trend of all cloth:—

	Twist an	nd Yarn	Cloth		
Year	Million Kgs.	Rs. in crores	Million mts.	Rs. in crores	
1965 (Jan. to Dec.)	12.76	6.03	506-8	46.76	
1966*	16.20	8.69	424.33	49-14	
1967 ( Do. )	12.39	8.15	409.56	59.37	
1968 ( Do. )	16.71	10.92	475-10	66.76	

<sup>\*</sup> Value is expressed in terms of devalued Rs. from June 1966.

Cotton Textiles Export Promotion Council: The Cotton Textiles Export Promotion Council is an autonomous body incorporated under the Companies Act. The Council is a non-profit making organisation and was set up in 1954 for the promotion of exports of mill-made cotton yarn and piece-goods, cotton manufactures and all hosiery and ready-made garments.

#### EFFECTIVE RATES OF EXCISE DUTY ON COTTON YARN TWIST & THREAD WITH EFFECT FROM 1st MARCH 1969.

(Rates in Rupees per Kg.)

	Count	Group		Others	
S. No.	No. of or more	Less than	In hanks		
1.	69	or more	0.90	1.50	
	51	69	0.65	1.25	
2. 3.	40	51	0.40	1.10	
4.	34	40	Nil	0.80	
5.	29	34	Nil	0.70	
6.	22	29	Nil	0.40	
7.	14	22	Nil	0.25	
8.		14	Nil	0.13	

# EFFECTIVE RATES OF EXCISE DUTY ON COTTON FABRICS WITH EFFECT FROM 31st MARCH 1969.

(In paise per Sq. Metre)

		Basic Duty	Additional Excise Duty	Handloom Cess	Yarn Com- pounded Duty	Total
SU	PERFINE:			AND SOME		
	) Grey	7.0	15.5	1.9	20.0	44.4
	) Bleached/Dyed	22.0	15.5	1.9	20.0	59.4
(iii	) Bleached or Dyed & Printed thereon	27.0	15.5	1.9	20.0	64.4
(iv	o) Mercerised or/and waterproofed, whether rot-proofed or not (in- cluding rubberised)	42.0	15.5	1.9	20.0	79-4
(v	) Mercerised etc. and printed thereon	47.0	15.5	1.9	20.0	84.4
(vi	Processed in any other manner including shrink-proofed and/or organdic processed	57.0	15.5	1.9	20.0	94.4

The Government has taken important decisions on the recommendations of the Committee.

EFFECTIVE RATES OF EXCISE DUTY ON COTTON FABRICS WITH EFFECT FROM 31st MARCH 1969.—(Contd.)

			No. of Persons and St.		A THE RESERVE	(In paise pe	r Sq. Metre)
		TOTAL AND THE REAL PROPERTY.	Basić Duty	Additional Excise Duty	Handloom Cess	Yarn Com- pounded Duty	Total
	(vii) Processed in	any other manner	Less to the last	Layer College	e matematica	A THE ACT OF N	700
	etc. and prin		62.0	15.5	1.9	20.0	99.4
B.	FINE:			State State of the			
	(i) Grey		6.0	9.6	1.9	12.0	29.5
	(ii) Bleached/Dy	ed	21.0	9-6	1.9	12.0	44.5
	(iii) Bleached or thereon	Contract the Contract of the C	26.0	9.6	1.9	12.0	40.5
		r/and waterproofed,	20.0	5-0		12.0	49.5
	whether rot-	proofed or not (in-			A MILE IN ME		
	cluding rubbe		41.0	9-6	1.9	12.0	64.5
		etc. and printed	46-0	9-6	1.9	12.0	69.5
	(vi) Processed in	any other manner					
		rink-proofed and/or	EQ. 0	0.0	1.0	10.0	70 -
	organdie proc	any other manner	56.0	9.6	1.9	12.0	79.5
	etc. and print		61.0	9-6	1.9	12.0	84.5
C.	MEDIUM 'A'						
0.	(i) Grey	E. Old. of	Nil	4.8	1.9	6.6	13.3
	(ii) Bleached/Dye		2.5	4.8	1.9	6.6	15.8
		Dyed & Printed					10.0
	thereon		5.0	4.8	1.9	6.6	18.3
		r/and waterproofed,					
	cluding rubbe	proofed or not (in-	20.0	4.8	1.9	6-6	33.3
		etc. and printed					
	thereon		22.5	4.8	1.9	6.6	35.8
	(vi) Processed in including shr	any other manner					
	organdie proc		35.0	4.8	1-9	6.6	48.3
		any other manner		-0.00	1 7 7 7 1 1	四人也 从 引起	FO 0
	etc. and print	ted thereon	37.5	4.8	1.9	6.6	50.8
D.	MEDIUM 'B' (No	on-Controlled)					
	(i) Grey		Nil	4.8	1.9	4.4	11.1
	(ii) Bleached/Dye		Nil	4.8	1.9	4.4	11.1
	(iii) Bleached or thereon	Dyed & printed	2.5	1.0	1.0	4.4	13.6
		r/and waterproofed,	2.0	4.8	1.9	4.4	13.0
	whether rot-p	proofed or not (in-					
	cluding rubbe		10.0	4.8	1.9	4.4	21.1
	thereon	etc. and printed	12.5	4.8	1.9	4.4	23-6
	(vi) Processed in	any other manner			hard 1	La test	
	including shr	rink-proofed and/or	25.0				00.1
	organdie proc	any other manner	25.0	4.8	1.9	4.4	36.1
	etc. and print	ed thereon	27.5	4.8	1.9	4.4	38.6
E.	MEDIUM 'B' (Co		N. 2 Miles	TREE TO STATE		and the later of	
	Items (i) to (vii)		0.0	4.8	1.9	4.4.	11.1
	COARSE: (Non-C		a transfer		un bine ha		
	(i) Grey		0.0	3.6	1.9	2.2	7.7
	( ), ( )		0.0	3.0	1.9		

## EFFECTIVE RATES OF EXCISE DUTY ON COTTON FABRICS WITH EFFECT FROM 31st MARCH 1969.—(Concid.)

(In paise per Sq. Metre).

Name and Address of the Owner, when the Owner,						
		Basic Duty	Additional Excise Duty	Handloom Cess	Yarn Compounded Duty	Total
(ii)	Bleached/Dyed	0.0	3.6	1.9	2.2	7-7
(iii)	Bleached or Dyed and printed thereon	2.5	3.6	1.9	2.2	10-2
	Mercerised or/and waterproofed whether rot-proofed or not (including rubberised)	10-0	3.6	1.9	2.2	17.7
	Mercerised etc. and printed thereon	12.5	3.6	1.9	2.2	20-2
	Processed in any other manner including shrink-proof and/or					
	organdie processed	25-0	3.6	1.9	2.2	32-7
	Processed in any other manner etc. and printed thereon	27.5	3.6	1.9	2.2	35-2
. COA	RSE: (Controlled)					
	s (i) to (vii)	0.0	3.6	1.9	2.2	7-7

NOTE: Coating, suiting, tussors, corduroy, gaberdine, bed-ford, satin denim, lappet, lace, knitted fabric, tapestry, furnishing fabric including jaccuard curtain cloth, gadlapat, mattress fabric, terry towel including turkish towel, terry towelling cloth including turkish towelling cloth, blanket, canvas, duck, filter cloth, tracing cloth and bukram cloth, will in terms of the provisions of the Finance Bill, 1969, henceforth attract a Basic duty at 12½ per cent plus an Additional Excise duty in lieu of Sales Tax at 2½ per cent ad valorem.

### RATES OF DUTY ON FENTS IN PAISE PER KILOGRAM.

The second secon			100					
					Basic Excise Duty	Addl. Excise Duty	Duty on Yarn contained in Fents	Total
SUPERFINE:				N.A.		- 21 - 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m		
Grey					58.0	22.0	200.0	280.0
Processed					228.0	22.0	200.0	450.0
FINE:								
Grey					20.0	22.0	80.0	122.0
Processed	7.00				110.0	22.0	80.0	212.0
MEDIUM — A:								
Grey					Nil	4.4	45.0	49-4
Processed					10.0	4.4	45.0	59.4
MEDIUM — B:								
Grey					Nil	4.4	30.0	34.4
Bleached/Dyed					Nil	4.4	30.0	34.4
Otherwise Processed	**				10.0	4.4	30.0	44.4
COARSE:								
Grey		9	1		Nil	4.4	15.0	19-4
Bleached/Dyed					Nil	4.4	15.0	19-4
Otherwise Processed					10.0	4.4	15.0	29.4

### PROCESSING SURCHARGES PAYABLE ON COTTON FABRICS

				DU	TY		
			Categ	ory A	Categ	gory B	
S. No.	Variety of fabrics on entry into the factory	Variety of fabrics at the time of clearance from the factory on payment of duty	In the case of from grey fabri not been many composite mil have already are exempted when processed dent Processes	cs which have factured in a l and which paid duty or from duty, l by Indepen-	Others which do not fa under category — A		
			Handloom fabrics	Other than handloom fabrics	Handloom fabrics	Other than handloom fabrics	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	Cotton Fabrics			Paise per se	quare metre		
1. (a)	Grey (Superfine or fine)	Bleached or/and Dyed but not printed	8.0	14.0	10.0	15.0	
	Grey (Medium-A) Grey (Medium-B or Coarse)	out not printed	1·5 Nil	1·5 Nil	2·5 Nil	2·5 Nil	
2. (a)	Grey (Superfine or fine)	Bleached or/and Dyed	13.0	19.0	15.0	20.0	
	Grey (Medium-A) Grey (Medium-B or Coarse)	and printed thereon	4·0 1·5	4·0 2·0	5·0 2·5	5·0 2·5	
3. (a)	Grey (Superfine or fine)	Mercerised or/and water- proofed whether rot- proofed or not (including rubberised) but not prin-	24.0	32.0	30.0	35.0	
(b)	Grey (Medium-A)	ted ,,	14.0	17.0	20.0	20.0	
(c)	Grey (Medium-B or Coarse)	*	3.5	3.5	10.0	10.0	
4. (a)	Grey (Superfine or fine)	Mercerised or/and water- proofed whether rot- proofed or not (including rubberised) and printed thereon	29.0	37.0	35.0	40.0	
(b)	Grey (Medium-A)	,,	16.5	19.5	22.5	22.5	
(c)	Grey (Medium-B or Coarse)	,	5.5	6.0	12.5	12.5	
5. (a)	Grey (Superfine or fine)	Processed in any other manner including shrink proofed and/or organdie	36.0	45.5	45.0	50.0	
	Grey (Medium-A)	proofed but not printed	26.0	30.5	35.0	35.0	
(c)	Grey (Medium-B or Coarse)	•	7.0	9.5	25.0	25.0	
6. (a)	Grey (Superfine or fine)	Processed in any other manner including shrink proofed and/or organdie proofed and printed thereon	41.0	50.5	50.0	55-0	
(c)	Grey (Medium-A) Grey (Medium-B or Coarse)	23	28·5 9·5	33·0 12·0	37·5 27·5	37·5 27·5	

<sup>(</sup>If cloth which has borne processing surcharges at a rate specified in Cols. (4) to (7) of the Table, as the case may be, is subjected to further processing then the difference between the rate for processing to which it is subjected and the rate already borne will be payable).

RATES OF DUTY PAYABLE ON RAYON AND SYNTHETIC FIBRE AND YARN

Commodity	Basic	Special	Total	Commodity Basic Special Total
'ariff Item 18. Rayon and Syn-				(iii) of 20 counts and
thetic fibres and yarn	45.0	15.0	60.0	below 2.70 0.90 3.60
ffective rates of duty				(ii) manufactured on other systems— 0.60 0.20 0.80
I. Staple fibre				V. Filament yarn:
(a) of cellulosic origin	0.75	0.25	1.00	1. Viscose and acetate—
	21.00	7.00	28.00	(a) For big producers
II. Staple fibre yarn (or cel-				of and
lulosic origin) either pure or in admixture with cot-				above below (i) — 75d 8.60 2.80 11.40
ton percentage whereof				(i) — 75d 8·60 2·80 11·40 (ii) 75d 100d 5·65 1·75 7·40
not exceeding 40				(iii) 100d 120d 4·10 1·15 5·26
of or more less than				(iv) 120d 150d 3·35 1·00 4·35
(nf counts)				(v) 150d 350d 2·85 0·90 3·78
(i) 51	1.00	Nil	1.00	(vi) 350d not above 1100d 2.50 — 2.50
(ii) 40 41	0.90	Nil	0.90	1 10 1 11001 0 00
(iii) 34 40	0.80	Nil	0.80	(vii) above 1100d 2.00 — 2.00 (b) For small producers
(iv) 29 (v) 22 34 29	0.60	Nil Nil	0·60 0·45	of and
(vi) 14 22	0.30	Nil	0.30	above below
(vii) less than 14	Nil	Nil	Nil	(i) — 75d 7·85 2·50 10·35
II. Yarn spun either (i) whol-				(ii) 75d 100d . 5.55 1.75 7.30
ly out of synthetic staple				(iii) 100d 120d 4·10 1·15 5·25 (iv) 120d 150d 2·85 0·90 3·75
fibre other than acrylic				(iv) 120d 150d 2·85 0·90 3·75 (v) 150d 350d 2·55 0·80 3·35
fibre, or (ii) partly of such				(vi) 350d not above
synthetic staple fibre and				1100d 2·50 — 2·50
partly of acrylic staple fibre or (iii) partly of such				(vii) above 1100d 2.00 — 2.00
synthetic staple fibre and				2. Other synthetic yarns—
partly of any natural				(a) Polyamide (nylon) yarn
fibre, the natural fibre				of and above below
content being not more				(i) — 30d 22·50 7·50 30·00
than 40% by weight of				(ii) 30d 75d 21·00 7·00 28·00
such yarn, or (iv) partly of such synthetic staple				(iii) 75d 90d 18·00 6·00 24·00
fibre and partly of acrylic				(iv) 90d 100d 15.00 5.00 20.00
staple fibre and partly of				(v) 100d 150d 15·00 5·00 20·00
any natural fibre the				(vi) 150d not above 750d 6.00 2.00 8.00
natural fibre content				(vii) above 750d 3.00 1.00 4.00
being not more than 40%				Note: Manufacturers whose clearances of cellulosic fil
by weight of such yarn.				and cellulosic yarn (viscose yarn and acetate yar
If the non-cellulosic fibre content of it is —				taken together in 1966-67
(i) 50 per cent, or more	10.50	3.50	14.00	(a) exceeded 36.5 lakh kgs. are treated as producers
(ii) less than 50 per cent				(b) did not exceed 36.5 lakh kgs. are treated
but more than 10		0.00	0.00	small producers.
per cent	6.00	2.00	8.00	(b) Other than polyamide (nylon) yarn
(iii) 10 per cent or less or nil	4.50	1.50	6.00	of and above below
V. Yarn spun either wholly	7 00			(i) — 30d 28·50 9·50 38·00
of acrylic fibre or partly				(ii) 30d 75d 24·75 8·25 33·00
of such fibre and partly				(iii) 75d 100d 15·00 5·00 20·00
of any natural fibre con-				(iv) 100d not above
tent of such yarn being				750d 12·00 4·00 16·00 (v) above 750d 3·00 1·00 4·00
not more than 40 per				(v) above 750d 3 · 00 1 · 00 4 · 00 VI. Godet waste, undersize
cent —				cakes waste and reeling
(i) Manufactured on				and coning waste.
worsted system — ((a) hand-knitting	4.50	1.50	6.00	(i) of Cellulosic origin 0.60 0.20 0.80
(b) others—	1 00			(ii) others (i.e. other than
(i) of 40 counts and				of Cellulosic origin
above	9.60	3.20	12.80	being non-Cellulosic) 3.00 1.00 4.00
(ii) of above 20				VII. Nylon yarn for the man- ufacture of fishing nets
counts but be-	- 0-	1.75	7.00	and Parachute Cords 3.00 1.00 4.00
low 40 counts	5.25	1.75	1 00	

## VEGETABLE OIL INDUSTRY

INDIA is one of the most important producers of oilseeds in the world and is consequently a large producer of vegetable oils as well as an exporter of oils and oilseeds.

The following figures show the average production of different varieties of oilseeds in recent years along with their share in world production:—

0110 _74	Date -	Average Indian Production (lakh tons)	As percentage of world Production
Groundnut		43.54	34
Castor seed		0.98	15
Linseed		4.10	13
Sesamum		2.88	34
Rape and mustard		13.80	12

The following table gives the yield in thousand tonnes—of oilseeds during the seasons 1963-64, 1964-65, 1965-66, 1966-67, 1967-68 and 1968-69:

	5 0	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Groundnut	4100	5,298	5,888	4,230	4,411	5,829	4,476
Castorseed		102	108	80	110	107	111
Linseed	1	379	503	335	260	398	352
Sesamum		439	493	425	416	422	415
Rapeseed and Mustard		915	1,466	1,276	1,228	1,482	1,572
Total		7,133	8,458	6,346	6,425	8,238	6,926

Between 1966 and 1969, the acreage under groundnut increased by just two per cent due to a sharp fall in the area under this important cash crop in 1968-69. Average production of groundnut during the three years ending 1968-69 showed a modest decline compared to the average production in the Third Plan mainly because of a sharp fall in output in 1966-67 and 1968-69. Per hectare yield of groundnut was the highest at 828·3 kgs. in 1958-59 and the lowest at 604·3 kgs. in 1966-67. The main groundnut producing states are Gujarat, Tamil Nadu, Maharashtra, Andhra Pradesh and Mysore.

The All-India Final Estimate of Groundnut for 1966-

67 has put the area under the groundnut crop at 7,299 thousand hectares.

The all-India first estimate of 1967-68 put the area under groundnut crop at  $7.553 \cdot 5$  thousand hectares. This shows an increase of  $4 \cdot 9$  per cent over the previous year.

The increase in the area under groundnut during the year 1967-68 has been mainly in Andhra Pradesh, Punjab and Rajasthan and is attributed to favourable climatic conditions at the sowing time. This increase in area has, however, been offset to some extent by a small decline reported from Madhya Pradesh and Maharashtra.

### ESTIMATED PRODUCTION OF OIL FROM THE FIVE MAJOR OILSEEDS

('000 Tonnes)

U	1-4 FE - 1,075 100 100 100 100 100 100 100 100 100 10	Shirt	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
	Groundnut	18.5	1,091	1,156	1,093	1.190	1,369	910
	Rape and Mustard		416	416	399	271	456	391
	Sesamum		99	116	143	126	153	127
	Linseed		117	138	128	111	150	95
	Castor		37	38	35	36	38	25

The oilseed crushing industry (excepting cottonseed oil industry) continued to be on the banned list in view of the large installed idle capacity in the country and to safeguard the interest of the village Ghani Industry.

In March 1956, there were 2,097 oil mills registered under the Factories Act. The total crushing capacity of the mills in the country was estimated at 56 lakh tons per annum in terms of oilseeds.

There were, besides, about four lakh village ghanis in the country with an annual crushing capacity of about seven lakh tons of oilseeds. Thus the total crushing capacity was estimated at 63 lakh tons in terms of oilseeds. The total output of oilseeds in recent years has been of the order of 65 to 70 lakhs tons.

The capital invested in the organised industry is estimated at Rs. 24·4 crores and the number of workers at 43,580. The most important oilseeds consumed in large quantities for the production of oils are groundnut, linseed, rape and mustard, castor seed and sesamum

seed. Small quantities of cottonseed, mohwa, and copra are also crushed.

The Fourth Plan target for oilseeds was put at 10.5 million tonnes as against the Third Plan target of 9.8 million tonnes and the actual output of 6.53 million in 1960-61.

### IMPORTS AND EXPORTS

The following table shows the total value of imports and exports of oil of some varieties:

(Value Rs. lakks)

	ALTER!	10.1 %	· Project	1967-68	1968-69
IMPORTS Palm Oil Coconut Oil		SADA	**	14.7	14.8
EXPORTS Groundnut Oil Linseed Oil Castor Oil			••	15·5 0·7 22·0	2·6 1·0 989·0

The consumption of edible oils and vanaspati was said to have gone up during the Second Plan. Assuming the higher consumption at 8.8 lb. the total requirements

of vegetable oils and vanaspati for 400 million people had touched about 1.62 million tons by 1960-61.

### PER CAPITA AVAILABILITY OF EDIBLE OILS

(Kgs. per year)

			Groundnut oil	Rape and Mustard oil	Coconut	Sesamum oil	Total
1962-63			2.34	0.84	0.50	0.31	3.99
1963-64	 	415	 2.40	0.57	0.45	0.29	3.71
1964-65	 	 -	 2.87	0.91	0.41	0.31	4.50
1965-66	 	 	 1.94	0.77	0.39	0.25	3.35

Pine Oil: The first pine oil factory in the country has been started at Hoshiarpur in the Punjab. It produces pine oil, dipentine and pine tar. This factory is claimed to have resulted in the saving of foreign exchange to the tune of Rs. 30 to 40 lakhs annually.

Palmarosa Oil: India ranks first among nations producing Palmarosa oil, and is the chief supplier of this important raw material for perfumery manufacture, earning foreign exchange worth Rs. 30 lakhs annually by way of its export alone.

To ensure quality control, Government have established a special laboratory at Bombay for AGMARK grading and have banned the export of ungraded Palmarosa oil.

### COTTONSEED

Special efforts are being made to develop the cottonseed oil industry on modern lines. From eight units equipped with delinting and dehulling machines in 1955, the number has grown to 20 units in 1965 with an annual installed capacity of 3 lakh metric tons in terms of seeds. The production in 1964 was 25,000 metric tons in terms of extracted oil. Among the steps taken to increase the consumption of cottonseed oil by vanaspati factories is a reduction of excise duty. Export of cottonseed oil as well as decorticated cottonseed oilcake was licensed freely. The policy of not licensing new mills or expansion of existing oil mills has been continued. The services of a T.C.M. expert were made available to the crushing industry to advise the crushers on the production and grading of cottonseed linters.

In regard to solvent extraction of oilcakes, there are at present 32 units, with an annual capacity of 547,500 tons in terms of oilcakes.

The rise in output was due to the commencement of operations by three more units. Considerable foreign exchange is already being earned by this industry by export of deoiled meal to U.K. and other countries.

Decorticated cottonseed cake has an export angle. Efforts are being made by the Government to increase its production and necessary assistance is being rendered to this industry. Manufacture of compound feeding stuffs is being encouraged. It is expected that there will be significant increase in the production of compound feeding stuffs as a result of the steps taken to increase this industry.

The following table gives the record of production achieved by the industry

		Year			Cotton seed oil in tonnes	Decorticated Cake Extrac- tions in tonnes	Undecorticated cake in tonnes	Linters in tonnes	Value in crores of rupees
1966					57,500	1,41,500	88,000	5,000	34.52
1967		**		a de la composição de l	67,000	1,35,000	1,69,000	5,600	32.88
			••		72,000	1,19,500	2,39,000	7,200	39.43
1968				The second		1,07,000	2,81,700	4,600	59.73
1969				100	88,500			41,500	209.75
To	otal			( line en )	3,99,500	8,04,500	9,06,700	41,500	200-10

Source: All India Cottonseed Crushers' Association.

### VANASPATI

The Vanaspati Industry though a minor branch of the Vegetable Oil Industry is one of the most highly organised and efficient industries.

In 1959, there were 58 factories with an annual production capacity of about 446,220 tons. Out of these, one is the Government Hydrogenation Factory at Kozhikode having an installed capacity of 3,000 tons per annum. Besides, there are seven factories with an annual rated capacity of 33,000 tons. It is the Government's policy not to permit any further expansion of the industry as the present capacity is adequate to meet all the requirements of 4 lakh tons. However, limited expansion of capacity is being allowed to small and uneconomic units

for enabling them to function more economically. Additionally, the setting up of a few units in the cooperative sector is also being considered.

In February 1966 the Government had curbed the production of Vanaspati at 80 per cent of the output in 1965. The control was removed on Sept. 5, 1967, but control on prices of Vanaspati continued. The removal of price control in June 1968 was short-lived and the statutory control was reintroduced on Sept. 6, 1968. Apart from mobilising internal supplies, the Government has decided to import 52,000 tonnes of soyabeans from U.S.A. If the present trend of production is allowed to continue the production in 1970 will not be more than three lakh tonnes against 4.82 lakh tonnes in 1969.

### PRODUCTION OF VANASPATI AND RELATED PRODUCTS

('000 tonnes)

								1965	1966	1967	1968	1969
(a)	EDIBLE:	8 H H			HE B	REFE		1000		TO SHEET		
	Vanaspati	0.00				-		429.3	358 • 5	392.9	474.2	482.2
	Refined vegetable oil		Versi	1.			14.4	42.6	47.0	38-9	N.A.	N.A.
	Margarine		4.					0.7	0.58	0.9	N.A.	N.A.
(6)	INDUSTRIAL:											
	Industrial hard oil							45.6	45.1	14.7	N.A.	N.A.

N.A.: Not available.

### Installed Capacity and Production

('000 tonnes)

Year		(Way	Installed Capacity	Production
1965	4:40	19.00	577-2	429.3
1966	TOTAL TOTAL		 584.0	358.5
1967		T. SHIEL	591.6	392.9
1968			591.6	474.2
1969			689 - 8	482.2

### Exports of Hydrogenated Oil

			Quantity (Tonnes)	Value (Rs. lakhs)
1960-61	N Wall		 66	103
1961-62			33	56
1962-63			30	45
1963-64	Jan 1		41	62
1964-65		90.		19

The ban on export of vanaspati and refined vegetable oils, as of all other edible vegetable oils, imposed in June 1964 continues, but limited exports of branded vanaspati have nevertheless been permitted as a special case in small instalments so as to minimise dislocation of our normal markets to the extent possible. Thus, only 391 tonnes of vanaspati were exported during 1967 mainly to the Middle Eastern markets, as against the export of 956 tonnes in 1966.

The net capital invested in the industry is about Rs. 22 crores. Besides 10,000 workers directly employed, the industry provides indirect employment for nearly 60,000 workers.

Edible oils constitute the chief raw material of the industry.

The table below summarises the programme of development in the Third and Fourth Plans:

(Tons)

SE ST THE SENSE OF		1960-61	1965-66	1968-69	1973-74
Installed Capacity		 434,000	550,000	650,000	
Production	 	 340,000	401,000	450,000	60,000

With a view to augmenting supplies of raw oils for the vanaspati industry, imports of 36,20,869 kgs. of soyabean oil from the U.S.A. under P.L. 480 were arranged during the period April 1967 to March 1968. 6,000 tonnes of sunflowerseed oil were received as a free gift from the U.S.S.R. in 1967 and the proceeds thereof were earmarked for the relief of people in the drought-affected areas.

Lemongrass Oil: Lemongrass is chiefly grown in Kerala. India exports about Rs. 2 crores worth of lemongrass annually to countries like the U.K., West Germany, U.S.A., Switzerland, Japen and Italy. Lemongrass oil is mainly used for the manufacture of synthetic vitamin 'A' and as a base for some perfumes for the soap-making industry.

## IMPORT AND EXPORT TRADE

## General Indices of Exports and Imports (1958 = 100)

10 may -		1966-67*	1967-68	1968-69
Quantity Inc	lex:	Statement I		
Exports		119	122	142
Imports		149	166	151
Price Index :	10/8			
Exports		169	169	166
Imports		150	136	141

\*These indices are based on the averages of index numbers for the ten months from June 1966 to March 1967. Consequent to devaluation of the Indian rupee on June 6, the figures for April and May have not been taken into account as they are not comparable with the post devaluation figures.

### BALANCE OF PAYMENTS

India's balance of payments position has been described in the Report on Currency and Finance (1968-69) of the Reserve Bank of India as follows:

Over the year 1968-69 the foreign exchange reserves increased by Rs. 38·1 crores, after repurchasing Rs. 58·5 crores from the I.M.F. and refunding Rs. 11·3 crores of the special deposits placed by the I.B.R.D. under the debt relief arrangement. Last year, on the other hand, reserves, which had shown a rise of Rs. 60·2 crores, had benefited from a net purchase of Rs. 24·4 crores from the I.M.F. and special deposits of Rs. 34·6 crores by the I.B.R.D. towards debt relief. Exclusive of these transactions and the depreciation of sterling assets, following

the devaluation of the pound in 1967, the increase in reserves during 1968-69, would amount to Rs. 107-9 crores as against a rise of Rs. 11-8 crores last year. The marked improvement in reserves during 1968-69 was the result of both a sizeable reduction in the free foreign exchange outlay on imports, particularly the outlay on foodgrain imports, and an increase in exports. The improved domestic supply position, following the better performance in agriculture helped reduce the outlay on imports of foodgrains and agricultural raw materials and increase the export availabilities of important agriculture-based exports.

Overall Trends: The discussion in the following paragraphs relates to trends during the calendar year 1968, as detailed balance of payments data for the financial year as a whole are not yet available. The foreign exchange reserves moved up by Rs. 14.8 crores during the year, while they had increased by Rs. 40.9 crores in 1967. However, if transactions with the I.M.F. and I.B.R.D. and the depreciation in sterling assets in 1967 are excluded the reserves would show a rise of Rs. 87.4 crores in 1968 as compared with a fall of Rs. 38.9 crores in 1967. The favourable swing in the external payments position between 1967 and 1968 was mostly a reflection of the narrowing down of the trade deficit; this was due to both a reduction in imports and an increase in exports. A sizeable part of the fall in imports resulted from the decline in aid-financed imports but there was a noticeable reduction in the free foreign exchange outlay as well. This together with the marked increase in exports, particularly to countries other than East European rupee payment countries, helped to relieve the pressure on the reserves. External assistance, comprising grants, loans and commodity assistance, continued to be a contributory factor in alleviating the pressure on the reserves; the quantum of aid utilised, however, was less than in the previous year.

Over the year 1968, the deficit on current account narrowed by Rs. 342.8 crores to Rs. 498.2 crores and the entire improvement reflected the sharp reduction in the adverse trade balance from Rs. 850.4 crores to Rs. 476.5 crores. Invisible transactions, including official transfer payment transactions, on the other hand, resulted in a deficit of Rs. 21 · 7 crores as against a surplus of Rs. 9 · 4 crores last year. The net outflow by way of unidentified transactions (covered by "errors and omissions") also increased over the year by Rs. 50.5 crores to Rs. 143.6 crores. Nevertheless, taking the current account together with the "errors and omissions", the total deficit at Rs. 641.8 crores, was smaller than that recorded last year by Rs. 292.3 crores. As in the preceding year, the total deficit was more than matched by the net inflow from capital transactions, which amounted to Rs. 656.6 crores. However, as the net inflow was on a much smaller scale than before, the accretion to the reserves amounted only to Rs. 14.8 crores as against Rs. 51.6 crores last year.

### **IMPORTS**

Following the increase in the domestic output of foodgrains and agricultural raw materials, mainly raw jute, raw cotton and vegetable oils during 1967-68, there was a reduction in the import of these items. In addition, imports of machinery and transport equipment, iron and steel, non-ferrous metals and chemicals also declined reflecting in part the impact of the rise in the rupee costs of imports following the devaluation of the rupee and in part the progress made in the field of import substitution. Imports of fertilisers and mineral oils, however, registered a rise offsetting in part the fall in the other items. On balance, the aggregate import bill at Rs. 1,826·2 crores was lower than last year by Rs. 254·8 crores or 12 per cent.

Sector-wise, imports on both private and Government accounts declined, with the former accounting for a little more than 60 per cent of the aggregate fall. A sizeable part of the decline in the aggregate import bill reflected the fall in aid-financed imports, particularly import of foodgrains. On private account, barring imports of mineral oil, which increased by Rs. 4.9 crores, practically all the other items registered a fall, the more significant among them being machinery and transport equipment (Rs. 33.6 crores), raw jute (Rs. 31.9 crores), non-ferrous metals (Rs. 26.4 crores), chemicals (Rs. 25.1 crores), vegetable oils (Rs. 19.2 crores), iron and steel (Rs. 18.5 crores) and raw cotton (Rs. 4.4 crores). On Government account, while import of foodgrains declined by Rs. 97.8 crores, the other imports taken together increased by Rs. 11.8 crores due to the rise in imports of fertilisers (Rs. 16.6 crores) and communication stores (Rs. 13.9 crores), which was offset in part by the fall in other items.

### **EXPORTS**

Exports, which had registered a rise in 1967, increased further by Rs. 119·1 crores or 10 per cent in 1968 to Rs. 1,349·7 crores. The spurt in exports reflected larger domestic availabilities, the stimulus derived from various promotional measures taken by the Government and the vigorous efforts made by industrialists and business men for gaining access to markets abroad. An encouraging feature of the performance during the year is that while exports to both East European rupee payment countries and the other countries showed rise, the increase in regard to the latter accounted for about 75 per cent of the overall rise in exports.

Commodity-wise, practically the entire rise in exports was brought about by non-traditional items, mainly engineering goods (Rs. 34·4 crores), iron ore (Rs. 26·0 crores), iron and steel (Rs. 27·8 crores) and other miscellaneous items (Rs. 28·2 crores). Exports of traditional items in the aggregate, continued to be around the levels attained last year but as between the different items there were noticeable changes. There was a decline in the exports of tea (Rs. 19·7 crores) and jute manufactures (Rs. 25·9 crores) which was mostly offset by the increase in a few other items, particularly, cashew kernels (Rs. 15·9 crores), cotton manufactures (Rs. 9·8 crores), oil cakes (Rs. 6·4 crores) and vegetable oils (Rs. 6·9 crores).

### DEVELOPMENTS IN TRADE POLICY

The trade policy remained broadly unchanged though suitable modifications were introduced to expand and diversify exports. The import policy while liberalising imports of spares and raw materials for priority industries linked the issue of import licences to export performance.

With a view to imparting a competitive edge to Indian exports, the export duties on a number of items including those on iron ore, tea, mica loose splittings, jute hessian and sacking were reduced; duties on jute wool-sacks, cotton bagging, tea packed in metal containers, light and pinhead black pepper, raw wool and certain other commodities were competely abolished. The basic principle of eash assistance for selected non-traditional exports remained unchanged. The scheme of recognition of export houses by the Government was extended to cover business houses handling traditional products. The recognised export houses would be eligible for Government assistance from the Marketing Development Fund for a wide range of their activities; the scale of assistance was also liberalised. The Government agreed to grant loans amounting

to Rs. 5 crores to equip the jute industry for modernisation and diversification. With a view to promoting exports of capital goods and machinery on deferred payments basis, the Industrial Development Bank of India announced a scheme for providing direct financial assistance in association with commercial banks. The Union Budget for 1969-70 provided for the inclusion of cotton and jute textile industries in the list of priority industries for the purpose of development rebate at a higher rate of 35 per cent. Important indigenous raw materials required for the export production of engineering and plastic goods were made available at international prices.

Besides extending the coverage of quality control and pre-shipment inspection, steps were taken to strengthen the inspection system and to create quality consciousness among exporters by introducing in-process quality control for certain categories of engineering goods and chemical products. During the year, the items brought under the purview of the scheme include, among others, solid woven impregnated cotton belting, vacuum flasks, sodium citrate, expanded metal steel sheet, stainless steel utensils, bicycles and their components, human hair and hair products, all types of coir door mats and specified varieties of jute cloth and bats. The preliminary work for the introduction of compulsory quality control and preshipment inspection scheme for a number of items such as curry powder, crude drugs and medicinal plants, certain seeds, specified types of goat skins and chemicals was completed.

In conformity with the export promotion policy and consistent with the needs of the economy there was progressive relaxation during the year of the control over exports of some items like HPS groundnut kernels and HPS groundnuts in shell, potatoes, chilly powder, jute caddies, etc., while several other items, such as, synthetic musk, raw human hair, cement knitwear (woollen and

mixed) were brought under control.

The Board of Trade, reconstituted in January 1968, held four meetings during the year. It reviewed the progress of exports during the post-devaluation period and recommended a series of steps to arrest the downward trend of exports following devaluation. The other subjects discussed by the Board included : (i) export of non-traditional items - measures, performance and targets relating to engineering goods, chemicals and allied products, (ii) expansion of trade with other developing countries with special reference to Tripartite Arrangement, (iii) role of Export Houses, (iv) problems of textile industry and (v) performance of State Trading Corporation. In addition to the two committees set up on Micro-Macro Planning and on Export Policy Resolution, referred to in the last year's Report, two committees were set up on Development of Export Possibility of Agricultural Products and on Export Packaging. The draft report of the committee on Export Policy Resolution is under consideration of the Government; the work of the other committees is in progress.

The Indian Institute of Foreign Trade pursued vigorously its activities in the sphere of training, general research and marketing research. The year 1968-69 witnessed a considerable expansion in its training and research activities. The Institute organised a number of training programmes at various centres in India to impart intensive training in subjects like 'Foreign Trade', 'Export Technique', 'Overseas Salesmanship', etc.

The Institute also conducted a special training programme in International Marketing for Senior Officers of Indian Industry and Trade and nominees of developing countries of Asia and Africa. In the field of general research,

two projects viz., (i) joint industrial ventures and (ii) customs valuation techniques in selected developed and developing countries were completed while work on other projects was in progress. Apart from organising a number of seminars the Institute undertook overseas market surveys, commodity studies and export potential surveys of some of the States.

The State Trading Corporation (STC) continued to play an important role in the diversification of the country's export trade, exploring new markets, promoting long-term exports of new items, while maintaining exports of traditional items, and generally assisting private trade in exporting difficult-to-sell items. The total trade handled by the S.T.C. in 1968-69 aggregated Rs. 167 crores as against Rs. 141 crores in 1967-68. The export turnover of the STC was substantially higher at Rs. 49 crores as compared with Rs. 24 crores during the last year.

Exports by the STC fell broadly under railway equipment, agricultural products, chemicals and mineral products, engineering goods and consumer goods. The Corporation secured fresh orders for railway equipment valued approximately at Rs. 11 crores from Hungary, Ceylon, Thailand, South Korea, Burma, Nigeria and Ghana. A protocol was also signed with Messrs. Machinoimport, of the USSR in March 1968 for supply of 54,000 wagons to the USSR during the period 1969-70. Among agricultural products, the Corporation made a break-through into Japan for bananas with a trial order and developed a new market in West Germany for mango pulp and mango slice. Assistance to small industries was continued to enable them to market their products abroad. On the import side, the Corporation handled imports of various items of engineering goods, chemicals, copra, soyabean oil and edible tallow. Imports of the three major commodities canalised through the Corporation viz., newsprint, art silk yarn and raw wool were being handled effectively to ensure regular supplies during the year at competitive prices.

The Minerals and Metals Trading Corporation (MMTC) expanded its trading activities during the year. The total export turnover of the MMTC during 1968 was Rs. 77 crores as against Rs. 69 crores in 1967. Exports of iron ore by the Corporation during the year amounted to 8.6 million tonnes valued at Rs. 57 crores compared to 8.5 million tonnes valued at Rs. 54 crores in 1967. Although the closure of the Suez Canal was a major handicap to exports of manganese ore to Europe, the MMTC still maintained its exports at 1.1 million tonnes valued at Rs. 11 crores during 1968. Exports of ferro-manganese showed a substantial increase during the year, from 18,000 in 1967 to 63,000 tonnes. A three-year longterm contract was concluded in August 1968 for the export of 2.6 lakh tonnes of coal and coke to Burma during 1969. The Corporation also imported steel, pig iron and non-ferrous metals

like copper, zinc, tin, etc.

The import policy for the year 1968-69 announced on April 1, 1968, while continuing the liberalised scheme for the import requirements of priority industries, linked the issue of import licences to export performance. Industrial units\* exporting 10 per cent of their production in 1967-68 were given facilities to import their requirements from sources of their own choice; moreover, their applications for expansion of production capacity and for imports needed to effect such expansion were to be considered favourably. Further, an obligation was imposed on 10 specified priority industries† with export potential to export at least 5 per cent of their production. Failing this they were likely to forfeit the facilities of preferred sources of supply for imported inputs and of expansion of pro-

<sup>\*</sup> Excluding (1) Fertilisers, (2) Pesticides, (3) Industrial and Mining Machinery, (4) Cement, (5) Tea, (6) Jute textiles, (7) Coffee, (8) Sugar and (9) Cotton Textiles

<sup>(9)</sup> Cotton Textiles.

† (1) Bicycles, (2) Certain parts of bicycles, (3) Diesel engines — stationary type, (4) Certain small tools, (5) Coated and bonded abrasives, (6) Storage and dry batteries, (7) Wire ropes, (8) Certain automobile ancillaries, (9) Drug and pharmaceuticals and (10) Paints, varnishes and enamels.

duction capacity. They would also face a probable cut in their import replenishments. The policy aimed at controlling inventory building by strengthening the link between inventories, consumption of inputs and import licensing. Priority industries were to be issued import licences for replenishment of raw materials and components consumed by them during a period of three to six months preceding their applications for import. Fresh import licences were to be issued only if the unutilised value of licences on hand was less than the replenishment claimed on the basis of consumption. Industrial units wanting to import plant and equipment of the value of more than Rs. 7.5 lakhs and steel castings and forgings of the value of Rs. 50,000 or above were required to advertise their requirements in detail in the *Indian Trade* Journal before they applied for import licences. Imports of 260 items were banned in view of their indigenous availability, while imports of 197 items were allowed on a restricted scale to actual users. Quotas of established importers were reduced in respect of 12 items.

Imports of sulphate of potash, sodium nitrate and raw films (35 mm. excluding sound negative) were canalised through the STC. Subsequently, imports of sulphur and X-ray films were canalised through the STC, in May and August 1968, respectively.

An open general licence was issued in September 1968 for the imports of (i) cashew-nuts, (ii) wattle extract, wattle and other bark for tanning and (iii) hides and skins, raw or salted, where the value of hides and skins was more than that of wool/hair thereon, from any country except South Africa/South West Africa, Rhodesia and Portugal for shipment on or before March 31, 1969. Other dyeing and tanning substances allowed under the earlier open general licence were not covered under this new open general licence; in November 1968 actual users were allowed to import these items.

In December 1968 licensees for capital goods were allowed to import restricted spare parts required for the maintenance of machinery against licences for such machinery, for the value not exceeding 5 per cent of the licence of Rs. 20,000 whichever was less. In addition, the initial validity period of CG/HEP licences, other than those issued against tied credits or foreign aid was reduced from two years to twelve months.

The Union Budget for 1969-70, raised the import duties on motor cars, imported and completely assembled, from 60 per cent ad valorem to 100 per cent ad valorem and on lubricating oil from 15 per cent to 27.5 per cent ad valorem. The duty on dry fruits and seedless dates was changed from a specific to an ad valorem basis.

Tariff Commission: In 1968-69, the Tariff Commission completed three tariff inquiries pertaining to continuance of protection to (i) automobile industry, (ii) dyestuff industry and (iii) aluminium industry, and two price inquiries relating to (1) caustic soda and allied products and (2) agricultural tractors.

The Government accepted the Commission's recommendation that the automobile industry should continue to remain under protection through quantitative restrictions on imports and that the progress of the automobile industry should be reviewed again by the Tariff Commission, after a period of five years, i.e., in 1973. The Government however, reserved the right to license a new unit of economic size for the manufacture of passenger cars so as to introduce an element of competition which would result in improvement in quality and/or reduction in price.

As regards the aluminium industry, the Government accepted the Commission's recommendation that protection granted to ingots, bars, sheets and circles, strips and foils, etc. should be continued at the existing rates of duty for a further period of three years ending December 31, 1971.

Regarding protection to dyestuff industry, the Commission recommended that protection granted to finished dyestuffs need not be continued beyond December 31, 1968; however, since quantitative control over imports is likely to continue, the industry may be deemed to be protected and therefore be subjected to periodical reviews. The Commission further recommended that its proposed scheme of protection for intermediates should be kept in force upto December 31, 1971 subject to half yearly reviews. The Government has accepted these recommendations.

In connection with the price inquiry relating to caustic soda and allied products the Government held that as the prevailing market prices corresponded more or less to the fair selling prices recommended by the Commission, it was not necessary to control prices at this stage. As regards agricultural tractors, the Government did not accept the Commission's recommendation that the ex-factory selling prices of tractors should be fixed for each of the producers and that freight from factory to the dealers' point, together with packing, forwarding and insurance charges should be charged separately to customers. The Government held that selling prices should be fixed on an f.o.r. destination basis as before and not on an ex-works basis; further, the Government held that there should be uniform price for a particular make of tractor throughout the country so that the consumers residing at places far away from the producing centres are not placed at a disadvantage. As regards the basis for the fixation of fair ex-works prices, the Government did not accept the recommendation of the Commission to provide a return of 15 per cent on the capital employed as against the normal practice of allowing a return of 12 per cent. The Government also considered that replacement ratio adopted by the Commission for expected deletions of components of CKD packs was higher than the average replacement ratio already effected by all the manufacturing units. In the case of manufacturing units importing components and raw materials from the U.K. some adjustment in the prices was necessary because of the change in the exchange rate following the devaluation of the pound sterling. In the light of these factors, the Government fixed the maximum selling prices f.o.r. destination (rail head) different from those recommended by the Commission.

## TRADE AGREEMENTS AND TRADE AND PAYMENTS ARRANGEMENTS

Trade agreements and trade and payments arrangements continued to play a significant role in expanding India's foreign trade and forging closer economic ties.

A trade agreement was signed with Thailand for the first time. The existing agreements with France and Greece were renewed and the annual trade arrangements with Iran and Iraq were finalised. The trade agreement with Indonesia which was signed on December 28, 1966 was ratified by both the Governments and would now be valid upto October 25, 1970.

Fresh trade and payments arrangements were finalised with Democratic People's Republic of Korea, Bulgaria, German Democratic Republic, Poland and Socialist Republic of Rumania. The existing trade and payments arrangements were renewed with Socialist Federal Republic

<sup>†</sup> An inquiry is considered to be complete only after Government decision on the report is published.

of Yugoslavia, Czechoslovak Socialist Republic, North Viet Nam and Sudan. Annual trade plans, in accordance with the existing trade and payments arrangements were signed with Afghanistan, Democratic People's Republic of Korea, United Arab Republic, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Rumania, Union of Soviet Socialist Republics and Yugoslavia.

A Development Credit Agreement was signed in September 1968, with Norway, under which Norway has agreed to provide credit for procurement of machinery, equipment, spare parts for vessels and shore installations to further the development of the Indian fishing industry.

### DEVELOPMENTS IN EXCHANGE CONTROL

The major developments in the sphere of exchange control during the year related to export promotion, pursuit of studies abroad, investments by non-residents of Indian origin, booking of passage for travel abroad and delegation of powers to authorised dealers. In keeping with the objective of liberalising exchange facilities for export promotion, (i) the minimum annual export turn over prescribed for the issue of blanket exchange permits was reduced, (ii) registered Export Houses, irrespective of their past performance, were made eligible for the grant of blanket permits, (iii) the purpose for which blanket permits could be utilised was liberalised, (iv) the conditions governing release of exchange for export promotion tours to new firms entering the export field were relaxed. As regards studies abroad, (i) exchange facilities were granted for post-graduate diploma courses in non-technical subjects and for courses in Management or Administration by B.Sc. and engineering graduates, (ii) the minimum marks stipulated were relaxed in the case of students with teaching or research experience and (iii) the validity period of the foreign exchange permits was changed from one year to the total duration of the course. Non-residents of Indian origin were permitted to invest in public or private limited companies irrespective of whether the companies are engaged in industry, trade or business. Further, as an experimental measure, for a period of three years, they were also permitted to invest in partnership and proprietorship concerns subject to certain conditions. Airline/steamer companies were allowed to book passages in the case of certain categories of travellers without prior permission of the Bank. As an experimental measure, P form clearance facilities were granted in certain cases, provided the host abroad agreed to meet the total cost including passage both ways. Powers were delegated to authorised dealers for undertaking certain types of transactions so as to minimise the inconvenience and delay. These developments are detailed below.

Export Promotion: In April 1968, the minimum annual export turnover prescribed for the issue of blanket exchange permit to exporters was reduced from Rs. 20 lakhs to Rs. 5 lakhs in the case of non-traditional goods. For traditional goods, the separate minimum annual turnover prescribed earlier for tea and jute goods (Rs. 100 lakhs) and all other items (Rs. 50 lakhs) was abolished and a uniform minimum annual turnover of Rs. 25 lakhs was made applicable to all traditional goods. The registered Export Houses were also made eligible for the grant of blanket exchange permits irrespective of their past performance. Further, the purpose for which the exchange authorised under blanket permits could be utilised was liberalised in that it could now be used not only for travel abroad but also for a few additional purposes, such as, conducting market studies, advertising abroad, participation in overseas exhibitions, trade fairs etc. For meeting

these additional requirements, the value of blanket permits has been enhanced by 50 per cent. In view of the difficulties experienced by exporters in raising funds locally for export financing, they have now been permitted to receive advance remittances from overseas buyers/agents provided the rate of interest payable does not exceed 8 per cent and that the shipments are effected within one year from the date of receipt of the advance.

In keeping with the objective of liberalising exchange facilities for export promotion tours, the official recommendation required to be furnished by new firms, entering the export field, in support of their applications for release of exchange was discontinued in May 1968 and these firms are now required to produce evidence to show that the proposed visit abroad is likely to result in new or additional exports.

Education: The minimum marks prescribed for the release of exchange to holders of engineering degree proceeding abroad for taking up degree courses in engineering or other technical subjects was raised from 55 per cent to 60 per cent in April 1968. Engineering graduates with 60 per cent marks were also made eligible for the grant of exchange facilities for taking up diploma courses in technical subjects. Beginning with September 1968, however, the minimum marks stipulation was dispensed with in the case of candidates who have secured the first or second rank in their degree examination.

The foreign exchange facilities granted hitherto to students with 60 per cent marks in Honours or Master's degree examination for taking up degree courses in non-technical subjects were extended in April 1968 to cover post-graduate diploma courses in non-technical subjects at any university or institution. The minimum marks stipulation was, however, dispensed with in May 1968, in the case of students who had secured the first or second rank in the Honours or Master's degree examination. The requirement of 60 per cent marks was further relaxed again in May 1968 in the case of all students, whether technical or non-technical and whether it leads to a degree or diploma, provided the candidates have secured 50 per cent marks in their degree examination and have at least two years' teaching or research experience or five years' experience in an industry related to the proposed course of study abroad.

In July 1968 the foreign exchange facilities for taking up degree courses in Management or Administration, which were hitherto granted to candidates with 60 per cent marks in Honours or Master's degree examination, were extended to B.Sc. degree holders and engineering degree holders with 60 per cent marks. Holders of diplomas, which have been recognised as equivalent to a degree for recruitment to Central Government services, were made eligible in March 1969 for grant of foreign exchange facilities on lines similar to those extended to corresponding degree holders.

In order to avoid inconvenience to parties making remittances against permits issued to students for their studies abroad, it was decided in January 1969 to discontinue issuing permits valid for one year at a time and instead issue permits valid for the total duration of the course. Authorised dealers were empowered to effect remittances during the validity period of the permit provided the necessary documentary evidence in regard to progress made by the student is furnished by the remitter.

Investments by non-residents of Indian origin: In May 1968 it was decided to permit withdrawals from the National Defence Remittance Scheme Special Accounts held by non-residents of Indian origin for purposes of

extending loans to or for investment in interest bearing deposits with public or private limited companies on the following conditions, namely, (a) the rate of interest payable on the loan or deposit does not exceed 12 per eent per annum and (b) the borrowing company would give an undertaking to the effect that the interest and principal amount will be credited back to the respective Special Accounts and that the loan or deposit will not contravene the requirements notified from time to time by the Non-Banking Companies Department of the Bank.

Hitherto, investments by non-residents of Indian origin in public or private limited companies were permitted only in those companies which are engaged in industry and not in trade or business. This stipulation was withdrawn in November 1968 and investments are now permitted irrespective of whether the companies are engaged in industry, trade or business; the restriction on the repatriation of dividends and sale proceeds of investments would, however, continue. In December 1968, it was decided to permit, as an experimental measure for a period of three years, investments by non-residents of Indian origin in partnership and proprietorship concerns subject to the condition that neither the capital invested nor the profits earned would be allowed to be repatriated abroad and that this would be credited to the non-resident blocked account of the investor until such time he takes up Indian citizenship. This facility was also extended to funds held in National Defence Remittance Scheme Special Accounts - subject to the same conditions except that profits and sale proceeds will have to be credited to the respective Special Accounts.

Booking of Passage: Airline/steamer companies and Travel Agents were authorised in June 1968 to book, without obtaining prior approval of the Bank, passages in respect of certain categories of travellers, such as (a) wife and children proceeding abroad to join the head of family employed abroad provided the passage fare has been paid abroad, (b) Indian nationals employed abroad returning to their country of employment after a visit to India, provided passage fare has been paid abroad, (c) members of families of airline/steamship company staff who are posted for duty abroad for at least one year, (d) persons holding letters of appointment from foreign Governments provided Prepaid Ticket Advice has been received from abroad in respect of the passage and (e) employees posted for duty at overseas branches of Indian banks and insurance companies and members of their families.

In March 1969 it was decided to grant, as an experimental measure, depending on the bonafides of the case, 'P' form clearance for visits abroad based on hospitality extended by persons who are not close relatives and by friends provided the host abroad not only agrees to meet the cost of the stay abroad but also remits the cost of passage both ways. The 'P' form clearance under this arrangement would be restricted to one month and to the country in which the host is residing.

Delegation of Powers: With a view to minimising inconvenience and delay, further powers were delegated to the authorised dealers in September 1968 for under-taking certain types of transactions without obtaining the prior approval of the Bank. Accordingly, the amounts upto which they could make remittances, without prior approval for payment of subscriptions or membership fees by firms or companies and other corporate bodies and for meeting legal expenses in connection with dishonoured export bills were raised from £15 per annum to £100 per annum and from Rs. 500 to Rs. 1,000 respectively. Authorised dealers were also allowed to effect remittances not exceeding £15 towards foreign university admission fees and a similar amount on account of examinations held in India for securing admission in foreign institutions. They have also been permitted to grant loans or overdrafts upto Rs. 20,000 to their non-resident constituents who are Indian nationals or persons of Indian origin provided the advances are fully secured by deposits or rupee securities acquired by the constituents out of their remittances from abroad.

Others: The other developments during the year were the following: (a) North Korea, which was excluded from the list of bilateral account countries in 1964, was again included in the bilateral account group in April 1968 following the extension of the trade agreement with that country for a period of two years beginning with January 1968, (b) The forward sales of exchange against imports on a deferred payments basis, which were hitherto subject to the condition that deliveries should correspond to the instalments falling due under the relative letters of credit or guarantees approved by the Bank, were liberalised in June 1968 and authorised dealers were permitted to make forward sales for the aggregate amount of the payments to be made under the relative letters of credit or guarantees, (c) In order to meet rising cost of living in foreign countries the scales at which exchange is released for business travel abroad were revised upward in June 1968. These revised scales were also made applicable to journalists proceeding abroad and others going abroad for conferences or on study tours. (d) Following the introduction of the Import Deposit Scheme in the U.K., the period of realisation of 50 per cent of the invoice value of goods exported from India to the U.K., which come under the purview of the Scheme, was extended, as a temporary measure in January 1969 to eight months so as to enable the exporters to grant credit facilities to U.K. importers for a period longer than usual; the remaining 50 per cent is to be received within the stipulated six month period. Authorised dealers were permitted to purchase sterling represented by the 50 per cent value covered by this relaxation for delivery upto eight months forward. To enable the authorised dealers to offer this facility the Bank agreed to buy sterling from them for delivery within eight months at the same rate as applicable to purchases for delivery within six months.

## I. TRENDS IN INDIA'S FOREIGN TRADE

(In crores of Rs.)

- Bek	100		Imports	Exports	Balance	Exports as per cent of Imports
1955–56 1960–61 1964–65 1965–66 1965–68 1967–68 1968–69	::	•::	1,219·91 1,767·22 2,125·53 2,219·26 2,078·36 2,002·84 1,910·00 1,567·00	959-38 1,011-65 1,286-16 1,269-37 1,156-56 1,198-67 1,357-88 1,410-00	$\begin{array}{c} -260 \cdot 53 \\ -755 \cdot 58 \\ -839 \cdot 37 \\ -949 \cdot 89 \\ -921 \cdot 80 \\ -804 \cdot 17 \\ -552 \cdot 12 \\ -157 \cdot 00 \end{array}$	78·64 57·25 60·51 57·20 55·65 59·85 71·09 89·98

II. TRENDS IN INDIA'S FOREIGN TRADE: DATA FOR ALL REGIONS AND PRINCIPAL COUNTRIES

(In crores of Rs.)

					100	67-68		(In crores of Rs.)
		William X						38-69
					Imports	Exports	Imports	Exports
1					94.32	69-99	148.22	72.76
	1. U.A.R		Str. 27.		26.90	21.50	41.41	21.82
	2. Sudan		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		11.52	20.75	21.50	18.47
	3. Tanzania	1.20			11.51	3.97	17.41	4.94
	4. Congo			19 (2.5)	10.49	0.06	20.88	0.02
	5. Others				33.90	23 • 71	47.02	27.51
11	North America				874 92	235-96	673.78	263.07
	1. U.S.A				776-64	206-22	575.06	233 · 40
	2. Canada				98-28	29.74	98.72	29.67
Ш	Latin America			States, v	13.86	5-45	16.83	3.65
IV	Other American Con	untries	an denot o		2.20	1.90	1.00	2.04
v	ECAFE				288-89	270.08	970 97	242 62
AND STA	The state of the s				108-43		278 • 27	343.63
	O T	ALL BOOK IN		A GOL	32.89	135-69	115.30	158.16
	3. Thailand	<b>小市等域</b> 的运动的	Name and	則而完美		14.20	35.68	21.42
	4. Australia			2.0	24.69	1.17	35.12	7.42
	DAME TO STATE OF THE PARTY OF T				64.96	27.97	25.72	25.46
					15.08	18.40	14.12	24.65
	6. Malaysia	••		10 000	9.30	6.80	7.72	7.05
	7. Others	Name of the State of	Mary 10		24.30	61-93	28.10	87.56
VI	Other Asian & Oce	anic Countri	es, Ant	arctic				
	& Arctic Regions	ATTUR BUTTON		I CONTRACT TO SERVICE	39.71	43.84	33.41	67.00
VII	East European Cour	ntries			222.20	224.58	301.04	266.19
	1. U.S.S.R	Takin Jakin			111-22	120 - 51	185 • 51	148.17
	2. Czechoslovakia		703.00	- North	27.34	29.16	35-27	31.71
	3. Poland		19.00	MAN AND	23.78	21.99	21.83	24.85
	4. G.D.R	PAGE OF THE SECOND	100	Mr. Bourle	21.57	20.31	20.53	19.84
	5. Yugoslavia				19.78	11.60	8.89	18.82
	6. Others	.,	••		18-31	21.01	29.01	22.80
VIII	E.C.M. Countries		602154		256.14	88.44	233-65	110.84
	1. West Germany				143.93	21.70	119.74	26.14
	2. France		A TILLIAN		34.42	15.44	36.40	19.99
	3. Italy	100		10.00	34.27	17.68	49.50	17.93
	4. Netherlands				25.67	12.96	17.75	15.33
	5. Others				17.85	20-66	10.26	31 · 45
IX	European Free Trac	de Area Cour	ntries	17.00	208-70	242.34	170.46	216.28
	1. U.K				162-65	228-47	127.87	200.83
	2. Sweden		列を小方	1-180	18.40	3.40	16.72	4.56
	3. Switzerland				13.39	5.79	15.12	6.71
	4. Others				14.26	4.68	10.75	4.18
X	Other European Con	intries			6.66	10.24	2.21	10.87
	TOTAL				2,007.60	1,192.82	1,858 · 87	1,356.34
	Value of Articles un	der Referenc	e				2.75	
	GRAND TO				2,007.60	1,192.82	1,861.62	1,356.34
			NO PERSONAL PROPERTY AND ADDRESS OF THE PERSONAL PROPERTY AND PERS	March 1			William Parket State of State	

NOTE: Totals given here may differ from those in Table I which takes into account latest revisions.

5.61

35.94

8.82

6.30

9.16

11.66

5.88

1,192 - 81

3. Transport Equipment ...

1. Clothing except fur cloth-

2. Works of art, collectors'

pieces and antiques

X Commodities and Transactions

Grand Total ...

not classified into kind

IX Miscellaneous Manufactured

Articles

ing ...

4. Others

3. Footwear ...

16.40

46.55

14-73

10.48

9.18

12.16

5-50

1,356.34

### III. INDIA'S FOREIGN TRADE: EXPORTS OF PRINCIPAL COMMODITIES (In crores of Rs.)

Group Commodity 1967-68 1968-69 Group/Commodity 1967-68 1968-69 362-17 364.15 I Food and Live Animals 2. Medicinal and Pharmaceu-179.12 154 . 95 3.77 3.33 1. Tea (black) tical products 43.03 60.93 3. Chemical elements 2. Cashew Kernel and 45.47 49.47 2.21 3.29 3. Oil cakes .. compounds 4.15 . . 18.18 17.96 12.03 6.45 4. Coffee 4. Others 5. Sugar and honey ... 16.44 10:37 510.74 603 - 01 VII Manufactured Goods 9.66 12.98 6. Black pepper 233 - 53 216.94 1. Jute manufactures 7. Pulses and flower thereof 0.68 3.92 79.44 87-97 2. Cotton manufactures 0.59 1.29 8. Rice 54.83 78 93 3. Iron and Steel 45.68 55.60 9. Others 53-22 71.99 4. Leather ... 35.60 33.80 II Beverages and Tobacco 5. Pearls, precious and semi-34.85 33.16 1. Unmanufactured Tobacco 30.37 44.76 0.75 0.64 2. Others .. . . 16.12 24.30 III Crude Materials, Indelibles ... 194.30 211 . 95 43.23 79-12 7. Others 1. Iron Ore and Concentrates 74.77 88.40 2. Ores and Concentrates of Transport VIII Machinery and 16.22 non-ferrous base metals ... 12.99 19-14 43.63 Equipment 3. Cotton raw and waste ... 19.40 15.74 1. Machinery other than elec-11.02 8.42 7.92 13.95 4. Iron and Steel scrap trical 5. Oilseeds, Oilnuts and Oil 2. Electrical machinery, ap-5.61 13.28 kernels 1.80 7.31 paratus and appliances ...

Note: The figure for total exports given here may not tally with that in Table I which takes into account latest revisions.

\* Minerals accounted for 12% of the total values of all exports from the country during 1969. It was worth Rs. 1,700 million.

5.79

5.04

2.55

62.48

12.10

9.43

2.67

 $11 \cdot 95$ 

23.70

4.38

6.47

 $7 \cdot 39$ 

2.72

9.15

7.32

1.83

4.16

15.73

3.74

57-74

Wool and other animal

7. Hides and skins ...

IV Mineral Fuels, Lubricants and

2. Coal, coke and briquettes

..

1. Essential Oils, perfume

and flavour materials

V Animal, Vegetable Oil and

Related Materials\* ...

1. Petroleum products

hair

9. Others

Fats ..

VI Chemicals

8. Jute (raw)

IV. INDIA'S FOREIGN TRADE: IMPORTS OF PRINCIPAL COMMODITIES (In crores of Rs.) 1968-69 Group/Commodity 1967-68 Group/Commodity 1967-68 1968-69 IV Mineral Fuels, Lubricants & 403.06 I Food Articles . . 579-20 Related Materials 74.94 84.18 316 . 96 1. Wheat and Rice ... 433 - 23 1. Petroleum crude & partly 31.38 2. Cashewnuts 25.08 ... 59.73 54.31 3. Cereals unmilled ... refined 74.69 14.95 15.10 29.43 2. Petroleum products 39.77 4. Others 46.20 ... 0.11 0.44 3. Others II Beverages & Tobacco 1.14 19.30 1.84 34.42 V Animal, Vegetable oils & fats 267.64 281 - 37 VI Chemicals 231 III Crude Materials inedible ex-1. Fertilizers manufactured 139.52 137-59 cept Fuels 191.00 189.88 2. Chemical elements & Com-1. Cotton (raw) 90.18 83.01 82-70 77-37 pounds 2. Crude fertilisers & crude 3. Medicinal & pharmaceu-37.14 minerals 55.14 17.52 17.50 .. .. tical products .. 11.82 11.23 Wool (raw) 38.73 43.58 4. Others ... 4. Pulp and waste paper 10.43 10.31 254 - 53 250 - 20 VII Manufactured Goods 5. Jute (raw) 9.31 1.77 89.93 88-99 1. Non-ferrous metals 6. Vegetable fibres (except 86.15 2. Iron & Steel 106 29 Cotton & Jute) ... 8.51 4.21 3. Pearls, precious & semi-Crude rubber 4.89 4.42 27.73 12-34 precious stones ... 8. Oilseeds, oilnuts and ker-17.65 18.26 Paper & paperboard 5.22 3.51 nels 29.07 28.32 5. Others 9. Others 15.10 14.82

Note: The figure of total imports given above may not tally with that in Table I, which takes into account latest revisions.

### IV. INDIA'S FOREIGN TRADE: IMPORTS OF PRINCIPAL COMMODITIES—(Contd.)

(In crores of Rs.)

	Group/Commodity	1967-68	1968-69	Group/Commodity	1967-68	1968-69
VIII	Machinery & Transport Equipment	503·13 336·56	516.41	IX Miscellaneous Manufactured Articles X Commodities & Transactions not classified according to kind	27·71 68·71	24·72 88·61
	2. Electric machinery, apparatus & appliances	85 • 64	81-07	Value of Articles under reference		2.75
	3. Transport Equipment	80 • 93	63.35	TOTAL	2,007-62	1,861-62

NOTE: The figure of total imports given above may not tally with that in Table I, which takes into account latest revisions.

## MONEY SUPPLY

HE rate of expansion in money supply with the public which had gone down continuously since 1965-66 from 11 per cent in 1965-66 to 9.3 per cent in 1966-67 and 8.1 per cent in 1967-68, declined further to 8.0 per cent in 1968-69. In absolute terms, money supply with the public expanded by Rs. 429 crores in 1968-69, as compared with Rs. 400 crores in 1967-68 and Rs. 421 crores in 1966-67. Unlike in the past few years the expansion was more marked in the currency component (Rs. 306 crores) than in demand deposits (Rs. 123 crores). The expansion in total monetary resources (comprising currency with the public and aggregate deposits with banks) at Rs. 846 crores was, however, substantially larger than in the previous year (Rs. 644 crores) reflecting a considerably larger increase of Rs. 416 crores in time deposits with banks as compared with the increase of Rs. 244 crores in the previous year.

The rate of expansion in monetary resources during 1968-69 at 11·3 per cent was higher than the rate of growth in real national product and towards the end of the year there was some pressure on prices. In the previous year this rate of monetary expansion had slowed down to 9·4 per cent from 11·1 per cent in 1966·67 and with the spurt in real national income a considerable easing of the pressure on prices was witnessed.

The sharp increase in time deposits at the rate of 19·7 per cent during 1968–69 as against 13·1 per cent, 16·3 per cent and 13·1 per cent in 1967–68, 1966–67 and 1965–66, respectively, is partly attributable to the vigorous branch expansion programmes of the commercial banks in compliance with the targets indicated by the Reserve Bank. The efforts of the banks to attract new classes of depositors and to encourage the spread of the banking habit also contributed to the accelerated growth of time-deposits.

The constituents of money supply variations and the principal factors accounting for the variations during 1968-69 are indicated in the following table.

## VARIATIONS IN MONEY SUPPLY—FINANCIAL YEAR

(Crores of Rupees)

Item	1966-67 1	1967–68 2	1968-69
1. Currency with public	+163	+179	+306
2. Deposit Money	+258	+221	+123
3. Money Supply	+421	+400	+429

Item	1966–67 1	1967–68 2	1968-69
Factors Affecting Money Supply:			
A. Net Bank Credit to Govt. sector B. Net Bank Credit to	+294*	+246	+443
Private Sector C. Net Foreign Exchange	+225	+178	+ 86
Assets D. Governments' net	— 16†	+ 13	+ 89‡
Currency Liabilities E. Net Non-monetary Liabilities of the Banking System (In-	+ 23	+ 7	+ 23
crease — §)	-105	<b>— 44</b>	-212‡

\* Excluding the effect of revaluation of certain assets of the Reserve Bank following the devaluation of the rupee.

† Ignoring the effect of revaluation of foreign assets of the Reserve Bank following devaluation.

‡ Excluding the changes due to revaluation of gold held in the Issue Department of the Reserve Bank with effect from Feb. 1, 1969.

§ Comprising mainly capital and reserves and the differences between other liabilities (mainly bills payable, accrued profits, etc.) and other assets (such as premises, debit balances under branch adjustments and items in course of collection).

### SEASONAL TRENDS

The contraction in money supply at Rs. 130.4 crores in the 1968 slack season (May-October) was twice as much as in the slack season of 1967 (Rs. 63 crores). This larger slack season contraction during 1968 came about mainly because of the contraction of Rs. 174 crores in net bank credit to private sector which, in turn, reflected a larger accretion of Rs. 230 crores to banks' time deposits (as against Rs. 133 crores in the 1967 slack season). The increase in net bank credit to Government was also much smaller at Rs. 36 crores as against Rs. 105 crores in the 1967 slack season. But in the busy season of 1968-69 (November-April) the expansion in money supply was as large as Rs. 606 crores (Rs. 546 crores in the previous busy season), consisting of an increase of Rs. 410 crores in currency with the public and Rs. 196 crores in deposit money. The main factor responsible for the expansion was the sharp increase of Rs. 324 crores (as against Rs. 66 crores in the previous busy season) in net bank credit to Government. The volume of commercial and co-operative bank credit to the private sector increased

by Rs. 461·9 crores in 1968–69 busy season as against Rs. 517·9 crores in the previous busy season. But consequent on the larger accretion to banks' time deposits (Rs. 200·1 crores in the 1968–69 busy season as against Rs. 105·9 crores in the 1967–68 season), the expansionary effect of bank credit to the private sector on money supply was only Rs. 261·7 crores in the 1968–69 busy season as against Rs. 412·0 crores in the last busy season. The other expansionary factors were (1) a rise of Rs. 117

crores in net foreign exchange assets of banks; (excluding the effect, as explained earlier, of the formal revaluation of gold held in the Issue Department of the Reserve Bank) and (2) increase of Rs. 32 crores in Government's net currency liabilities to the public. The increase of Rs. 131 crores in net non-monetary liabilities of the banking system during the same period, however, moderated the expansionary effect of the above mentioned factors.

## NATIONAL INCOME

A CCORDING to tentative estimates, the real national income of India (at 1960-61 prices) advanced by 1.8 per cent to Rs. 165 billion in 1968-69 from Rs. 168 billion in 1967-68.

The per capita real income decreased by 0.6 per cent in 1968-69.

The real national income has risen by 26.5 per cent between 1960-61 and 1968-69.

The national income at current prices was of the order of Rs. 27,922 crores in 1967–68 which is higher by 18·1 per cent over the corresponding estimate of Rs. 23,647 crores for 1966–67. Between 1960–61 and 1967–68 the national income at current prices has risen by 109·9 per cent.

The per capita income at current prices was Rs. 542.9 in 1967-68 as against Rs. 471.2 in 1966-67, showing a gain of 15.2 per cent which is due partly to the general rise in the price level.

According to rough estimates the real national income is expected to rise by about 6 per cent in 1969-70 over

the previous year. The rise in real per capita income for 1969-70 should be roughly 3.5 per cent.

In 1967-68 (current prices) share of agricultural sector as a whole was nearly 53·1 per cent of the income originating in all sectors together. The mining and manufacturing sector with a share of 18·2 per cent made the second biggest contribution. The services sector accounted for as much as 14·1 per cent and the trade, transport and communications for 14·6 per cent.

The pattern of incomes generated in different sectors has not changed significantly over the years.

During the post-independence period as a whole, the annual growth rate of the Indian economy has been of the order of 3.5 per cent allowing for the population growth rate of 2 per cent per annum on an average, the long-term rate of increase of real per capita income works out at about 1.5 per cent per annum.

Table below shows the gross national product and net national product (i.e. national income) at current and constant (1960-61) prices.

1.2: GROSS NATIONAL PRODUCT AND NET NATIONAL PRODUCT (i.e., NATIONAL INCOME)
( REVISED SERIES )

Year			Pro (Rs. c	National duct erores)	Net National Product (Rs. crores)		Per Capita net National Product (Rs.)		National (1960-6		Index Number of per capita net National Product (1960-61 Base)	
			At Current Prices	At 1960-61 Prices	At Current Prices	At 1960–61 Prices	At Current Prices	At 1960–61 Prices	At Current Prices	At 1960–61 Prices	At Current Prices	At 1960–61 Prices
duction of	1		2	3	4	5	6	7	8	9	10	11
1962-63			15,821	14,952	14,891	14,067	326.8	308-8	111.9	105.7	106.6	100.7
1963-64				15,803	17,119	14,889	367.0	319-2	128-6	111.9	119.7	104-1
1964-65			21,198	16,930	20,080	15,945	420-2	333 • 6	150.9	119.8	137.0	108.8
1965-66*		7.	21 -00	16,053	20,586	15,045	420.5	307.3	154.7	113.1	137-1	100-2
1966-67*				16,233	23,647	15,173	471.2	302.4	177.7	114.0	153-6	98-6
1967-68*		HEL	29,377	17,622	27,922	16,525	542.9	321.3	209.8	124.2	177.0	104.8
1968-69**	*		n.a.	n. a.	n. a.	16,830	n. a.	319.3	n. a.	126.5	n, a,	104-1
Annual Rate du Plan	Grouring T	owth	9.1	2.7	9•1	2.5	6-5	neg.				

<sup>\*</sup> Provisional.

<sup>\*\*</sup> Quick estimates.

## POSTS AND TELEGRAPHS

THE Indian Posts and Telegraphs Department comes under the administrative control of the Government of India, in the Department of Communications. The Secretary of the Department holds charge of the office of the Director-General, Posts and Telegraphs as also that of the Chairman of the Posts and Telegraphs Board. The Posts and Telegraphs Board and the Director-General, Posts and Telegraphs between them exercise all the powers of the Department of Communications in administrative matters. The P. & T. Board is responsible for the development, maintenance and expansion of Postal, Telegraph, Telephone and Wireless Communications throughout the country. In addition to the work relating to wireless licences it discharges also certain agency functions like the work of Government Savings Bank, National Savings Certificates and Postal Life Insurance Policies, and collection of customs duty on postal articles on behalf of other Departments of the Government of India.

### **BUDGET ESTIMATES (1970-71)**

Revised Estimates for 1969-70 (Rs. crores): Revenue receipts 232·31; Working expenses (net) 212·46; Net receipts 19·85; Dividend to General Revenues 12·96; Surplus 6·89; Appropriation to Revenue Reserve Fund 6·89; Appropriation to Capital Reserve Fund 6·89.

Budget estimates for 1970-71 (Rs. crores): Revenue receipts 256.82; Working expenses (net) 229.88; Net receipts 26.94; Dividend to General Revenues 14.80; Surplus 12.14; Appropriation to Revenue Reserve Fund 10.98; Appropriation to Capital Reserve Fund 1.16.

#### STAFF

The total staff (including Audit & Accounts) employed in the Posts and Telegraphs Department on March 31, 1969 was 534,302 (including 181,287 extra departmental employees and 3,505 Gazetted Officers). The strength of women employees was 16,608.

### TRAFFIC STATISTICS

Estimated postal traffic for 1969–70: Postal articles (excluding money orders) (millions) 6,045; Registered articles (millions) 181·8; Money orders (millions) 94·5; Savings Bank transactions (millions) 74·6; Telegrams 49·9 million; Trunk calls 77·2 million; STD calls 43·2 million (excluding TAX); Value of money orders issued Rs. 577·3 crores; Telephones ('000) 1,219.

### COMPLAINTS

The no. of complaints received during 1969 was 6,58,219. This works out to 0.0108 per cent of the total traffic against 0.0114 per cent in 1968. The number of complaints disposed of during the year was 6,74,934.

### POSTS

Post Offices: There were 1,03,410 post offices at the close of December 1969. During Jan. to end of March 1970 it was proposed to add about 1,760 new post offices, mostly in rural areas. A post office, at present, serves on an average, an area of 11.69 sq. miles and a population of 4,270 compared to 57 sq. miles and a population of 16,134 on the eve of independence. During the period from April to Dec. 1969, 292 branch offices/extra departmental sub-offices have been upgrad d and 603 offices were likely to be upgraded before the end of March 1970. Sixteen mobile post

offices are now functioning in all "A" class and "B" class cities.

Delivery of Mails in Rural Areas: As on Dec. 31, 1969, 337,655 villages were receiving delivery of mails compared to 320,311 villages at the end of 1968.

Letter Boxes: There are 98,028 outside letter boxes (Dec. 31, 1969) of which 61,004 are installed in rural areas. During 1969, 6,085 additional letter boxes were provided in the country.

Postal Life Insurance: Proposal relating to 22,169 policies for Rs. 8,21,70,500 were accepted during April to Dec. 1969 as against 19,064 policies for Rs. 6,85,17,800 during the corresponding period in 1968.

Liberalisation of Loan Scheme: Loans are now advanced in respect of Endowment Assurance policies which are in existence for three years instead of five years as before.

Night Post Offices: During 1969, orders for the opening of 19 night post offices were issued out of which 16 have already started functioning. The remaining three were expected to start from functioning before the end of March 1970.

Village Post Offices with Savings Bank powers: During the year 1968-69, 10,649 branch post offices were vested with savings bank powers. It had been decided to vest 6,000 more branch post offices with savings bank powers during 1969-70.

Replacement of Runners' Lines by More Expeditious Modes of Conveyance: In pursuance of the policy of providing more expeditious service in rural areas, 1,030 runners' lines covering a total distance of 23,028 kms. were replaced during the year ending March 31, 1969, by quicker modes of conveyance as given below: (No. of lines converted and kms. converted respectively): Mail Motor Service: 270; 11,111; Horse drawn v. hicles 37; 4,217; Camels, Mules, etc. 7; 84; Bicycles 447; 5,135; Other means, i.e., Boats, Steamers, etc. 269; 2,481; Total 1,080; 23,028.

Commemorative Stamps: The following postage stamps have been issued during 1969-70. Name, denomination and date of issue respectively: 1) Rafi Ahmed Kidwai, Author, All-Up—Airmail Scheme; 20 P; 1-4-1969; 2) International Labour Organisation (50th Anniversary) 20 P; 11-4-1969; 3) Jalianwala Bagh (50th Anniversary); 20 P; 13-4-1969; 4) Kasinadkuni Nageswara Rao Pantulu (102nd Birth Anniversary); 20 P; 1-5-1969; 5) Ardeseer Curstjee Wadia; 20 P; 27-5-1969; 6) Serampore College (150th Anniversary); 20 P; 7-6-1969; 7) Dr. Zakir Husain; 20 P; 11-6-1969; 8) Laxmanrao Kirloskar (Birth Control 1988) (Birth Centenary); 20 P; 20-6-1969; 9-12) Mahatma Gandhi\*; Rs. 2; Rs. 5; 75 P ard 20 P; 2-10-1969; 13) Inter-Gov rnmental Maritime Consultative Organisation (IMCO); 20 P; 14-10-1969; 14) 57th Conference of Inter-Parliamentary Union; 20 P; 30-10-1969; 15) Man on the Moon; 20 P; 19-11-1969; 16) Guru Nanak Day (500th Birth Anniversary); 20 P; 23-11-1969; 17) International Union for the Conservation of Nature and Natural Resources; 20 P; 24-11-69; 18) Sadhu Vaswani (90th Birth Anniversary); 20 P; 25-11-1969; 19) Thakkar Bapa (Birth Centenary); 20 P; 29-11-1969; 20) Plenary Assembly of International Radio Consultative Committee (CCIR); 20 P; 21-1-1970; 21) C. N. Annadurai (1st Death Anniversary); 20 P; 3-2-1970; 22 Munshi Nawal Kishore; 20 P; 19-2-1970; 23) Swami Shradhanand (Patriot); 20 P; 30-3-1970.

<sup>\*</sup> Birth Centenary.

Night Air-mail Service: An inland night air mail service links the principal cities—Bombay, Calcutta, Madras, Delhi and Nagpur. All inland letters, letter cards, post cards and money orders are carried by air without any surcharge.

Philatelic Deposit Account Scheme: This scheme introduced in four philatelic bureaux viz., Bombay, Calcutta, Delhi and Madras with effect from Aug. 1, 1965, proved popular. Under this scheme philatelists open account with an initial deposit of Rs. 50.

Savings Banks: The post office savings bank is the largest people's bank. It has almost twice as many depositors as all the commercial banks put together. There were 80,655 post offices doing savings bank transactions (March 31, 1969) and total amount in deposit including Savings Certificates, stood at Rs. 16,790 million. The amount under cumulative time deposit scheme was Rs. 787 million during 1968–69.

Unit Trust: The sale of Unit Trust 'Units' has been authorised with all the post offices and sub-post offices in the country with effect from July 1, 1966.

### TELEGRAPH SERVICES

There are over 14,594 telegraph offices (including licensed offices) in the country. Majority of them are in the rural areas.

Conversion of large combined posts and telegraph offices into departmental telegraph offices is being undertaken in order to improve the telegraph service. The total number of such departmental telegraph offices on December 31, 1969 stood at 234.

Phonogram Service: This facility provides a quick and convenient means to the telephone subscriber for sending and receiving their telegrams by telephone. During 1969-70 (up to Dec. 31, 1969) this service was introduced at 16 new centres bringing the total number of such stations to 1.887.

Teleprinters: The total number of teleprinters in use as on Dec. 31, 1969 was 12,001. This includes 600 teleprinters with the Devnagri keyboard.

International Telex: The most important development in the subscriber to subscriber transmission of printed messages was the commissioning of teleprinter exchanges at important cities on June 24, 1963. This service has now been extended to Coimbatore, Kanpur, Ahmedabad, Bangalore, Hyderabad, Nagpur, Madurai, Patna, Secunderabad, Poona, Gauhati, Tiruchy, Ranchi, Lucknow, Srinagar, Vijayawada, Jaipur, Ernakulam, Amritsar, Rajkot and Vasco-da-Gama.

The capacity of the telex network of different centres in India was 5,960 lines on March 31, 1969. This was  $\epsilon$ x-pected to be increased to 6,680 lines by the end of March 1970.

International Telex Service from India is available to 70 countries.

### TELEPHONES

Telephone facilities are provided at tehsil and equivalent headquarters, block headquarters, Police stations and at places with population of over 5,000.

The total number of telephones in the country as on Dec. 31, 1969 was about  $11\cdot70$  lakhs.

The registered number of persons in the waiting list as on Dec. 31, 1969 was about 4,50,000.

The total number of connections given under O.Y.T. scheme upto Nov. 15, 1969 was 145,477 and the revenue

accrued from the subscribers under the scheme was Rs. 36,75,82,252.

Subscriber Trunk Dialling: In this system, a subscriber can himself directly dial the number of the distant exchange subscriber thus eliminating the need for booking and putting through of calls by operators. This facility is now available on the following routes, viz., Lucknow-Kanpur, Delhi-Agra, Delhi-Jaipur, Agra-Kanpur, N. Delhi-Kanpur, N. Delhi-Lucknow, N. Delhi-Patna, N. Delhi-Jullundur, N. Delhi-Meerut, Madras-Bangalore, Kanpur-Varanasi, Delhi-Simla, Delhi-Ahmedabad, Delhi-Jammu, Delhi-Srinagar, Srinagar-Jammu, Madras-Tiruchirapalli, Srinagar-Baramulla, Srinagar-Anantnag, Srinagar-Sopro and Bombay-Ahmedabad.

Coaxial Cables: In order to provide a large number of high grade circuits between important cities in the country, the laying of control trunk cable was taken up in 1958. This scheme continued to make further progress over the year 1969-70.

National Subscriber Dialling: The National Subscriber Dialling network is being planned to permit subscribers of automatic exchanges of one city to directly dial and obtain subscribers of other cities in the country. These facilities are already available on a point to point basis between certain cities. In the National Dialling Plan these facilities will be extended to cover more important stations and provide transit dialling facilities which are not available in the existing point to point scheme.

Under the National Dialling Scheme Trunk automatic exchanges have been commissioned at Madras, Bombay and Delhi.

Microwave: By the beginning of 1968-69 microwave communications had been established on (1) Calcutta-Asansol-Katihar-Darjeeling-Siliguri-Cooch Behar-Shillong-Gauhati-Tejpur-Jorhat-Dibrugarh; (2) Calcutta-Kharagpur; (3) Jullunder - Dalhousie - Pathankot - Udhampur-Jammu-Srinagar; (4) Ambala-Chandigarh-Simla. This accounted for a total of 2,270 kilometres.

### WIRELESS

New Departmental Wireless Stations/Links opened during 1969-70: (1) Diskit-Leh H. F. Radio Telephone link; (2) Nyoma-Leh H. F. Radio Telephone Link; (3) Siliguri-Gangtok H. F. Wireless Telephone Link; (4) Dibrugarh-Khonsa VHF Radio Telephone Link.

Sizeable number of VHF links with ultimate capacity of 48 telephone channels are under advanced stages of installation.

Twelve wireless links were leased during 1969-70 and three were closed down.

Wireless Network: Wireless stations: 230 (Coastal stations 12; Monitoring stations 6; Other wireless stations—Departmental 74; Leased 138).

No. of wireless circuits: 266 (Radio Telegraph Circuits — Departmental 62; Leased 53; International (—); Radio Teleprinter Circuits — Departmental 16; Leased 4; International 8; Radio Telephone Circuits — Departmental HF & VHF 23; Leased HF & VHF 65; International 2; Marine Circuits — MF W/T 12; MF short range R/T 12; HF long range R/T 3; HF long range W/T 3; VHF Ship to Shore R/T 3).

Telecommunication Factories: During 1968-69 the telecommunication factories produced line and equipment stores worth Rs. 621·63 lakhs mainly for the use of the Department as against Rs. 596·06 lakhs during 1967-68 The production achieved during the first eight months of

1969–70 was Rs.  $363\cdot08$  lakhs and it was expected that at the end of the year 1969–70 the production would be able to achieve the target of Rs. 633 lakhs fixed for the year.

Postal Rates (India): Letters (ordinary) upto the first 15 grams 0.20 p. and every additional 15 grams or part 0.15 Paise; Post Cards (single) 10 p. and reply 0.20 paise; Book Post (50 grams) 15 p. and every additional 25 grams or part, 0.10 paise; Book Packets containing printed books only (upto 100 grams) 0.10 p. and per 50 grams thereafter or part 0.05 p.; Registered Newspapers: (i) In the case of a single copy of registered newspaper: up to 60 grams 2 p.; up to 100 grams 5 p.; up to 250 grams 10 p.; per 250 grams thereafter 5 p. (ii) In the case of more than one copy of the same issue of a registered newspaper contained in a packet: up to 100 grams 5 p.; per 150 grams thereafter 5 p.; Registration fee 75 p.; Parcels (per 400 grams) 0.80 p.; Registration fee 0.90 p.; for a weight not exceeding 400 gms.; and 90 p. for exceeding 400 gms. and fraction thereof. Acknowledgement fee 0.15 p.; Certificate of Posting fee (per 3 articles) 0.10 p.; Insurance fee (upto Rs. 100) 0.50 p.; per Rs. 100 thereafter upto Rs. 5,000, 0.30 paise (on each Rs. 100) and per Rs. 1,000 upto Rs. 10,000, 100 p.; Money Order Commission; 20 p. for every Rs. 10 or part up to Rs. 100 and thereafter 40 p. for every Rs. 20 or fraction thereof. (Cost of M.O. form 0.05 p. adjustable towards Commission); Telegraph money order supplementary fee will be 50 paise per TMO; Postal Orders Commission 10 p.; (per postal order); Value payable article - Posting fee (not exceeding Rs. 25) 0.10 p. and exceeding Rs. 25, 0.20 p.; Express Delivery fee (unregistered article) 0.20 p.

The registration fee on inland postal articles, postal articles to Nepal and Pakistan and postal articles other than parcels to Ceylon, will be 95 paise.

The phonogram fee per inland or foreign telegrams booked on telephone will be 40 paise.

The charges for local calls in measured rate exchanges beyond 750 calls per quarter will be 20 paise per call. These rates are also applicable to STD (Subscriber Trunk Dialling) calls.

Foreign: Letters (upto 20 grams) 0.75 p. and for 20 grams thereafter 0.45 p.; Post Cards (single) 0.45 paise, Reply paid 0.90 p.; Printed papers (upto 50 grams) 0.40 paise, and per 50 grams thereafter 0.20 p.; Book, Pattern and Sample packets 0.20 p. for the first 50 gms. and for every additional 25 gms. or fraction thereof in excess of 50 gms 0.10 p.; Registered Newspapers (upto 50 grams) 0.20 p.; and per 50 grams thereafter 0.10 paise; Insured Boxes (upto 250 grams) Rs. 3.00 per 50 grams thereafter 0.60 p.; Registration fee (bulk bags) Rs. 3.00; Acknowledgement fee 0.50 p.; (surface mail & 0.60 for air mail).

Foreign Air Mail Rates: Ceylon, Pakistan—Post Cards 0.20 p.; Aerogram 0.25 paise; To Afghanistan and Burma Post Cards 0.50 p. and Aerogram 0.65 p.; others: Post Card 0.75 p., Aerogram 0.85 p.

Telegraphs (Inland): The charges of ordinary and express telegraph respectively (non-press telegraphs) for the first eight words Rs. 1.20 and Rs. 2.40 and each additional word 0.10 p. and 0.20 p.

The charges for the first eight words of ordinary inland greetings telegrams will be Rs. 1.40.

## THE PRESS

THE 13th Annual Report of the Registrar of Newspapers for the year 1968 shows that there were 10,019 newspapers and periodicals in 1968 compared to 9,315 in 1967. There were 2,434 periodical publications in non-included categories in 1968, besides the 10,019 newspapers. During 1968 the Press in the country had registered a numerical gain of 7.6 per cent. Newspapers in the country were published in 49 languages (15 principal languages and 34 other languages).

Among the principal languages, the largest number of newspapers (2,381) were in Hindi, followed by English (2,074), Urdu (902), Bengali (642), Gujarati (573), Marathi (572) and Tamil (439).

Periodicitywise there were in 1968, 636 dailies, 51 tri-weeklies and bi-weeklies, 2,892 weeklies, 1,101 fort-nightlies, 3,997 monthlies, 855 quarterlies, 351 tri-monthlies and half-yearlies etc. and 136 annuals. Languagewise Hindi published the largest number (2,381 including 182 dailies), followed by English (2,074 including 68 dailies), and Urdu (902 including 88 dailies), Bengali (642 including 53 dailies), Tamil (439 including 36 dailies), Malayalam (377 including 52 dailies), Telugu (328 including 12 dailies), Kannada (231 including 38 dailies), Punjabi (214 including 15 dailies), Oriya (105 including 5 dailies), Sindhi (68 including 4 dailies), Assamese (32 including 2 dailies) and Sanskrit (29). There were 772 bilinguals (including 17 dailies), 165 multilinguals (including one daily) and 115 'Other' language papers (including 10 dailies). No daily was published in Sanskrit.

Maharashtra had the largest number of newspapers and periodicals (1,516), followed by Uttar Pradesh (1,433), Delhi (1,155), West Bengal (1,130), and Tamil Nadu (781).

During the year, 1,293 new newspapers commenced publication (against 1,202 in 1967) and 357 newspapers ceased publication.

### CIRCULATION

The comparative circulation data for 1967 and 1968 reveal a nominal increase (1.9 per cent) in circulation during 1968. The gain in circulation of dailies was, however, higher (3.2 per cent) than that of periodicals (1.4 per cent).

The total preliminary circulation in 1968 of all papers for which circulation data were available, was 234.57 lakhs. Monthlies accounted 75.42 lakhs (32.2 per cent) followed by dailies 70.41 lakhs (30 per cent) and weeklies 61.53 lakhs (26.2 per cent).

Newspapers in the English language had the largest circulation 60·02 lakhs (25·6 per cent) out of a total circulation of 234·57 lakhs, followed by Hindi 43·59 lakhs (18·6 per cent), Tamil 26·24 lakhs (11·2 per cent), Malayalam 18 lakhs (7·7 per cent), Gujarati 15·95 lakhs (6·8 per cent), Marathi 15·53 lakhs (6·6 per cent), Bengali 12·89 lakhs (5·5 per cent), Urdu 10·47 lakhs (4·5 per cent).

Among dailies, English newspapers had the largest circulation of 18·77 lakhs (26·7 per cent), followed by Hindi 10·09 lakhs (14·3 per cent), Tamil 7·77 lakhs, Malayalam 7·41 lakhs and Marathi 6·83 lakhs. Sindhi and Assamese dailies continued to have the lowest circulation among the principal languages.

Hindi 13.46 lakhs (21.9 per cent) circulation among weeklies in 1968, claimed the highest followed by Tamil 10.64 lakhs (17.3 per cent), English 9.12 lakhs and

Gujarati 4.61 lakhs. English periodicals (other than weeklies) with a circulation of 32.13 lakhs claimed the top position in the circulation of such periodicals. Hindi periodicals claimed the next largest share with a circulation of 20.04 lakhs.

The total circulation of 4,412 common newspapers and periodicals in 1967 and 1968 was 204·12 lakhs and 208·06 lakhs respectively showing a small increase of 1·9 per cent in 1968 over 1967.

The highest increase in circulation was reported in Malayalam papers (7·3 per cent) followed by Marathi (6·9 per cent), Oriya (5·4 per cent), Punjabi (5·3 per cent) and English (3·5 per cent).

Readership: The number of newspapers per lakh inhabitants rose to 1.9 in 1968 from 1.8 in 1967. The circulation of newspapers per thousand inhabitants based on the revised circulation for 1966 and 1967 and preliminary circulation for 1968 was 50.6, 50.6 and 44.8 respectively.

The highest newspaper circulation per thousand inhabitants in 1968 was shown by Malayalam (88.7), followed by Tamil (72.0).

### OWNERSHIP

At the end of 1968, there were 64 common ownership units publishing 217 dailies and news-interest weeklies as against 62 such units owning 209 such newspapers in 1967. The share of newspapers owned by common ownership units in the total circulation of all papers was a little less in 1968 (24.9 per cent) than in 1967 (26.6 per cent).

The total number of dailies and news-interest weeklies published by common ownership units recorded a slight increase during 1968 from 209 in 1967 to 217 in 1968. The number of dailies published by such units was 165 in 1968 as against 159 in 1967. The number of weeklies of news-interest was 52 in 1968 (against 50 in 1967).

Ownership Pattern: Out of a total number of 10,019 newspapers and periodicals published in the country in 1968, individuals owned 5,945 papers (or 59·4 per cent) as compared to 5,551 (59·6 per cent) out of 9,315 newspapers in 1967. Societies and Associations owned 1,996 newspapers (19·9 per cent) followed by Firms and Pattership and Joint Stock Companies owning 656 and 482 respectively. More than half of dailies (57·1 per cent) and monthlies (51·9 per cent), more than four-fifth of weeklies (81·3 per cent) and nearly three-fourth of fortnightlies (72·0 per cent) were owned by individuals in 1968. Joint Stock Companies was the second largest ownership group publishing dailies (18·0 per cent) followed by Firms and Partnerships (14·1 per cent).

The newspapers owned by joint stock companies although only 4.8 per cent of the newspapers in India, claimed the largest share in circulation (38.3 per cent) in 1968.

The next largest share, in circulation (29·1 per cent) was shared by newspapers owned by individuals in 1968. Newspapers belonging to firms and partnerships and societies had a share of 12 per cent and 11·6 per cent respectively.

### Circulation under Common Ownership

The circulation of news interest weeklies under common ownership registered a slight decline from 8.55 lakhs in 1967 to 8.42 lakhs in 1968. The circulation of common ownership dailies rose from 49.66 lakhs in 1967 to 49.88 lakhs in 1968. The circulation has been steadily rising from year to year since 1963, having recorded an overall

increase of 30·7 per cent during the quinquennium ended 1968.

### Bigger Units and News-Interest Papers

The largest number of news-interest papers owned by a single common ownership unit in 1968 was 21 (including 14 dailies) by the Express Group of Newspapers, commanding an overall circulation of 8·17 lakhs in 1968. The Bennett, Coleman & Co. Ltd. (11 papers) commanded the second largest circulation of 7·18 lakhs in 1968, which included eight dailies claiming a circulation of 4·70 lakhs. The third largest was the Thanthi Group with 12 newspapers (all dailies) having a circulation of 4·08 lakhs.

The eight dailies belonging to the Bennett, Coleman & Co., commanded a higher circulation than the 12 dailies of the Thanthi Group. Similarly, circulation of the three dailies of the Ananda Bazar Patrika Ltd. (2·75 lakhs) and of the five dailies of Amrita Bazar Patrika Ltd. (3·00 lakhs) was higher than the circulation of six dailies of the Hindustan Times Ltd. (2·61 lakhs).

In 1968 the combined circulation of 140 dailies belonging to the 64 common ownership units (for which data were available) constituted 70·8 per cent of the total circulation of all dailies published in India as compared to 74·3 per cent shared by 142 dailies owned by 62 units in 1967.

Papers owned by Political Parties: The total number of newspapers owned by political parties numbering 17 was 82 in 1968. The combined circulation of the papers was 1·19 lakhs. The Communist Parties of India had the highest circulation (75,000) amongst the newspapers published by political parties followed by the Indian National Congress which commanded a circulation of 24,000.

The Indian National Congress owned 30 papers, the Communist Parties of India 26, the P.S.P. with a circulation of 4,000 copies. The remaining 21 belonged to other political parties.

The total number of dailies published by various political parties was 11 including one bi-weekly in 1968. Five were brought out by the Indian National Congress, two by the Communist Parties of India and four by other parties (one each by the Socialist Party, D.M.K., J and K National Conference and Khasi Jaintia Conference.

Government Publications: There were 391 newspapers in 1968 published by the various Government Departments (including autonomous bodies functioning under the Government). Out of these, Central Government published 221 and State Governments/Union Territory Administrations 170. The total circulation of Government publications in 1968 was 7·19 lakhs compared to 6·79 lakhs in 1967.

### **NEWSPAPERS**

At the end of 1968, there were 10,019 newspapers and periodicals including 687 dailies (including 51 tri-weeklies and bi-weeklies), 2,892 weeklies, 1,101 fortnightlies, 3,997 monthlies, 855 quarterlies, 351 bi-monthlies and half-yearlies etc. and 136 annuals as against 9,315 newspapers and periodicals comprising 646 dailies, 2,697 weeklies, 961 fortnightlies, 3,772 monthlies, 799 quarterlies, 316 bi-monthlies, half-yearlies etc. and 124 annuals in 1967.

Besides the 15 principal languages, newspapers were also published in 34 other languages in 1968 against 32 other languages in 1967. A newspaper each appeared for the first time during the year in Awadhi and Vaiphei

languages. The Indian languages include Konkani, Manipuri, Maithili, Lushai (Mizo), Santhali, Khasi, Rajasthani, Garo, Thado/Kuki, Bhojpuri, Kashmiri, Paite, Angami Naga, Hmar, Hindustani (Persian script), Tangkhul Naga, Dogri, Zou, Kabui, Awadhi, Vaiphei, Harauti and Bundelkhandi.

The foreign languages in which newspapers were published are Arabic, Burmese, Chinese, French, Indonesian, Pushto, Tibetan and Swahili.

Besides the above languages, the following other languages figured in bilingual and multilingual newspapers: Halabi, Syriac, Italian, Latin, Magahi, Pnar, Spanish, Pali, Oraon, Kharia, Sadani and Munda.

Languagewise in 1968, Hindi published the largest number of newspapers (2,381 including 182 dailies), followed by English (2,074 including 68 dailies), Urdu (902 including 88 dailies), Bengali (642 including 14 dailies), Gujarati (573 including 39 dailies), Marathi (572 including 53 dailies), Tamil (439 including 36 dailies), Malayalam (377 including 52 dailies), Telugu (328 including 12 dailies), Kannada (231 including 38 dailies), Punjabi (214 including 15 dailies), Oriya (105 including 5 dailies), Sindhi (68 including 4 dailies), Assamese (32 including 2 dailies) and Sanskrit (29). There were 772 bilinguals (including 17 dailies), 165 multilinguals (including one daily) and 115 other language papers (including 10 dailies). No daily was published in Sanskrit.

The circulation of dailies\* languagewise in 1968 was as follows: English 18.77 lakhs (26.7 per cent), Hindi 10.09 lakhs (14.3 per cent), Tamil (7.7 lakhs), Malayalam (7.41 lakhs) and Marathi (6.83 lakhs). Sindhi and Assamese dailies continued to have the lowest circulation among the principal languages.

Metropolitan Press: A little more than one-third of the Press (3,435 newspapers out of a total of 10,019 or 34·3 per cent) appeared from metropolitan cities. However, the numerical concentration of daily and weekly sections of the Press were relatively less pronounced than that of periodicals (other than weeklies) with 18·9 per cent of dailies and 18·5 per cent of weeklies appearing from metropolis against 43·0 per cent of the periodicals (other than weeklies).

Languagewise the greatest degree of concentration of newspapers was found in English with 68·9 per cent of newspapers in the language appearing from metropolises. Besides, there was a marked degree of concentration of Bengali Press (57·3 per cent) in Calcutta. About one half of the Tamil Press was located in Madras. Press in Hindi, on the other hand, was more dispersed, a little more than one-third of Hindi newspapers being brought out from cities with population below one lakh and 37·1 per cent from cities with population one lakh and above (excluding metropolises and State Capitals). Malayalam Press was also widely dispersed with a little more than one half of such newspapers appearing from smaller towns.

Languagewise study of concentration of newspapers in 12 big cities having 100 or more publications establishes that a large number of English newspapers (79·0 per cent) were published from these big cities. On the other hand, only 30·8 per cent of Hindi newspapers appeared from big cities.

### DAILIES

The number of dailies enjoying a circulation of above one lakh was 16 in 1968, 16 in 1967 and 14 in 1966. The names of such dailies with the centres of publication & circulation in 1968 according to the languages are given below:

English:		Circulation 1968
The Hindu (Madras)		1,42,511
The Times of India (Bombay)	/	1,38,333
Statesman (Calcutta)		1,37,721
Amrita Bazar Patrika** (Calcutta)	• • • •	1,22,864
Hindi:		1,21,831
Nav Bharat Times (Delhi)		1,18,849
Hindustan (New Delhi)		1,04,289
Bengali:		
Ananda Bazar Patrika (Calcutta)		2,11,263
Jugantar (Calcutta)		1,45,200
Basumati† (Calcutta)		1,12,777
Malayalam:		
Malayala Manorama (Kottayam)		1,67,016
Mathrubhumi (Calicut)		1,13,918
Kerala Kaumudi (Trivandrum)		1,08,259
Mathrubhumi (Ernakulam)		1,06,623
Marathi:		
Loksatta (Bombay)		1,33,568
Tamil:		
Thanthi (Madras)		1,21,427

Multi-Edition Dailies: In 1968 there were 28 multi-edition dailies with 71 editions compared to 25 such dailies with 69 editions in 1967. The percentage of share commanded by the circulation of such dailies in the total circulation of the entire daily Press in India which had improved from 36·9 per cent in 1966 to 38·7 per cent in 1967 declined to 36·9 per cent in 1968.

The Indian Express continued to have the largest number of editions, enjoying the highest total circulation among the newspapers of the category under reference.

A list of multi-edition dailies in existence in 1968 commanding a circulation of over one lakh copies along with comparative data for 1967 within brackets is given below: The names of the centres of publication are given within brackets immediately after the names of the papers: Indian Express (Ahmedabad@, Bangalore, Bombay, Delhi, Madras and Vijayawada) 4,08,476 (3,94,486); Thanthi (Coimbatore, Madras, Madurai, Tiruchirapalli and Tirunelvely) 2,64,659 (2,68,501); Mathrubhumi (Calicut and Ernakulam) 2,20,541 (2,12,642); Malayala Manorama (Calicut and Kottayam) 2,09,005 (1,95,943); The Times of India (Ahmedabad@, Bombay and Delhi) 1,88,628 (1,61,179); Nav Bharat Times (Delhi and Bombay) 1,68,527 (1,61,179); Statesman (Calcutta and Delhi) 1,68,835 (1,66,105); Dinamani (Madras and Madurai) 1,41,849 (1,34,735); Amrita Bazar Patrika (Calcutta and Cuttack) 1,21,831 (1,12,140).

### PERIODICALS

The total number of periodicals increased by 7·7 per cent from 8,669 in 1967 to 9,332 in 1968. The preliminary circulation of periodicals in 1968 was 164·16 lakhs as against the final circulation of 186·87 lakhs in 1967. The total number of periodicals increased by 28·8 per cent in 1968 as compared to 1963. The number and circulation of monthlies was the highest, weeklies forming the next largest group. Of the total number of 9,332 periodicals published in 1968, 3,997 were monthlies and 2,892 were weeklies. Of the total circulation of 164·16 lakhs of periodicals in 1968, monthlies had 75·42 lakhs and weeklies 61·53 lakhs.

In 1968, periodicals in English numbering 2,000 commanded the largest circulation (41·25 lakhs) followed by Hindi with 2,180 periodicals (33·50 lakhs), Tamil with 403 periodicals (18·47 lakhs), Malayalam with 325 periodicals (10·59 lakhs), Gujarati with 530 periodicals (10·26 lakhs).

Increase in the number of periodicals in 1968 was highest in Malayalam (22·2 per cent) followed by Hindi (8·2 per cent), English (5·8 per cent) and Tamil (7·5 per cent). The number of periodicals in Sanskrit and Kannada registered nominal decreases.

Statewise distribution of these periodicals and their circulation reveals that Maharashtra continues to lead both in number (1,423) and in circulation (39·36 lakhs), followed by Uttar Pradesh 1,320 periodicals, Delhi 1,126 periodicals and West Bengal 1,094 periodicals. Tamil Nadu published 739 periodicals with a circulation of 28·93 lakhs. The circulation of periodicals from Delhi was 20·74 lakhs, West Bengal 14·88 lakhs and Uttar Pradesh 14·37 lakhs.

The various State Governments and the Central Government published a total number of 390 periodicals at the end of 1968 comprising 192 monthlies, 101 quarterlies, 35 weeklies, 29 fortnightlies, 23 bi-monthlies, half-yearlies etc. and 10 annuals. English continued to have dominant position with 191 periodicals followed by Hindi (82), bilingual 26, Bengali (10), Tamil (8), Marathi (7), Malayalam, Punjabi and Multi-lingual (six each), Telugu (5), etc.

Out of the total of 390 Government periodicals, data were available only for 190. Total circulation of Government periodicals in 1968 was 7·19 lakhs or 4·4 per cent of the total circulation as against the final circulation of 11·00 lakhs during 1967.

Names of periodicals having a circulation of over 50,000 in all languages and their circulation. The centre of publication is given within brackets:

### English :

Blitz News Magazine, Weekly (Bombay)	1,75,307
Reader's Digest, Monthly (Bombay)	1,63,286
Filmfare, Fortnightly (Bombay)	1,16,328

Capsule, Monthly (Bombay)	1,06,490
Femina, Fortnightly (Bombay)	1,05,675
Illustrated Weekly of India, Weekly	2,00,010
(Bombay)	92,415
Hindi:	
	1,21,671
Dharmayug, Weekly (Bombay)	1,47,863
Chanda Mama, Monthly (Madras)	78,361
Nandan, Monthly (Delhi)	70,069
Saptahik Hindustan, Weekly (Delhi)	61,878
Parag, Monthly (Bombay)	61,563
Tamil‡:	
77 7 777 -1.1 (35 3)	3,37,973
Varantari Rani, Weekly (Madras)	1,87,899
Ananda Vikatan, Weekly (Madras)	1,76,087
Kalkandu, Weekly (Madras)	1,22,784
Ulara de la compania	
Malayalam:	
Malayala Manorama, Weekly (Kotta-	2,39,233
yam)	1,16,679
Cinema Masika, Monthly (Kottayam)	53,250
Gujarati:	
Jankalyan, Monthly (Ahmedabad)	84,986
Marathi:	
Swaraj, Weekly (Poona)	66,035
Telugu:  Andhra Prabha Illustrated Weekly,	
Weekly (Madras)	1,09,604
Vijayachitra, Monthly (Madras)	64,516
Andhra Sachitra Vara Patrika, Weekly	
(Madras)	58,974
Kannada:	
	68,398
Sudha, Weekly (Bangalore)	00,000
Bengali:	0 1 1 1 1
Desh, Weekly (Calcutta)	67,171
Betar Jagat, Fortnightly (Calcutta)	56,000
Urdu:	
Shama, Monthly (Delhi)	67,833

# TABLE 1. DISTRIBUTION OF NEWSPAPERS & PERIODICALS (STATE AND PERIODICITY) (DECEMBER 31, 1968)

	-							Bi-month-	- Incompany		
State/Union Territory		Dailies	Tri- and bi-weeklies	Weeklies	Fort- nightlies	Monthlies	Quarter- lies	lies, half yearlies, etc.	Annuals	Total 1968	Total 1967
Andhra Pradesh	11130	23	2	142	81	242	24	6	3	523	490
Aggrana		7		29	8	32	6	5	1	91	72
Dihan		70	9	72	21	65	20	3	one <del></del>	193	172
		10	3 2 3		69	246	28	14	1	535	495
Gujarat		38	3	136	25	55	2	6		169	175
Haryana		8	1931	73		9	ĩ	1	-1000	96	76
Jammu & Kashmir		17	North House	61	7		36	7	6	497	433
Kerala		57		72	56	263	20	4	1	343	312
Madhya Pradesh	20.3	54	8	160	24	72		80	69	516	1,452
Maharashtra		90	3	408	109	604	153	SECTION AND PROPERTY.		354	349
Mysore		54	4	93	23	144	24	9	3		101
Origgo		6		28	12	55	13	8	3	125	
Punich		23	1	159	51	146	17	12	2	416	395
Rajasthan	**	25	3	210	65	114	26	5	2	450	411
703			1	96	127	411	67	28	10	781	724
		41			140	403	56	27	2	1,433	1,406
Uttar Pradesh		99	14	692		480	157	71	14	1,130	1,050
West Bengal		32	4	220	152	593	174	56	13	1,155	1,016
Delhi		27	2	180	110			3	1	39	32
Himachal Pradesh				14	6	12	3	2	2	26	25
Manipur		6		3	5	6	2	2	4	20	20

<sup>†</sup> Only circulation figures of over one lakh are given. The circulation figures are for 1967 as they had not supplied the 1968 figures to the Registrar of Newspapers.

TABLE 1. DISTRIBUTION OF NEWSPAPERS & PERIODICALS (STATE AND PERIODICITY)

(DECEMBER 31, 1968) — (Contd.)

States/Un Territor			Dailies	Tri- and bi-weeklies	Weeklies	Fort- nightlies	Monthlies	Quart- erlies	Bi-month- lies, half yearlies, etc.	Annual	Total 1968	Total 1967
Tripura	, 15		3	1	7		Para la				11	10
Chandigarh .		1	4	On Amount	21	5	25	14	3	2	74	61
Nagaland .	. 19		-	_	1	1	0 -	1		-	3	3
Pondicherry .			-	-	5	2	9	11	_		27	23
Goa	91111		6	-	10	2	11	_		1	30	30
Andaman & Nico	bar		1	_	-	O - ne	_	_	1	-	2	2
TOTAL for	1968		636	51	2,892	1,101	3,997	855	351	136	10,019	
TOTAL for	1967		588	58	2,697	961	3,772	799	316	124		9,315

TABLE 2. LANGUAGE AND PERIODICITY-WISE DISTRIBUTION ON DECEMBER 31, 1968

Language		Dailies	Tri- and bi-weeklies	Weeklies	Fort- nightlies	Monthlies	Quarter- lies	Bi-mon- thlies, half yearlies etc.	Annuals	Total 1968	Total 1967
English		68	6	254	183	896	424	179	64	2,074	1,958
Hindi		182	19	1,042	254	761	88	27	8	2,381	2,207
Assamese		2	1	8	4	13	3	1	_	32	23
Bengali		14	3	156	95	257	85	29	3	642	585
Gujarati		39	4	134	66	282	29	15	4	573	546
Kannada		38	3	66	13	97	10	3	1	231	229
Malayalam		52	-	62	53	195	8	3	4	377	310
Marathi		53	2	207	41	200	29	15	25	572	550
Oriya		5	-	25	10	53	8	3	1	105	86
Punjabi		15		93	10	81	8	7		214	188
Sanskrit		-	-	2	2	13	9	3		29	31
Sindhi		4	-	25	4	30	3	1	1	68	63
Tamil		36	_	67	97	227	10	2		439	403
Telugu		12	_	82	56	173	5		-	328	314
Urdu	140	88	6	397	110	283	11	5	2	902	864
Bilingual		17	6	214	74	324	87	37	13	772	691
Multi-lingual		1	1	38	16	67	18	15	9	165	168
Others		10		20	13	45	20	6	1	115	99
TOTAL for 1968		636	51	2,892	1,101	3,997	855	351	136	10,019	
TOTAL for 1967		588	58	2,697	961	3,772	799	316	124	-	9,315

TABLE 3. CIRCULATION OF NEWSPAPERS AND PERIODICALS (LANGUAGE & PERIODICITY-WISE)
DURING 1968

Figs. in 000's Bi-Tri- and Grand Fort-Quarterlies monthlies Annuals Language Dailies Weeklies Monthlies Total bi-weeklies nightlies etc. English .. 60,02 18.60 9,12 1,31 65 5,72 19,80 4,65 43,59 Hindi 13,46 10,04 5 3 . . 3,01 16,49 44 7 Assamese 8 96 18 54 3 11 2 Bengali .. 12,89 4.80 2 1 2,92 10 31 1.22 3,51 Gujarati ... 15,95 4,61 5,44 25 21 12 5 90 4,37 Kannada ... 6.06 . 2,19 3 1,93 9 1,72 8 2 Malayalam 18,00 7.41 13 4,55 54 5,34 3 Marathi .. 15,53 6,83 3,13 48 3,88 21 16 84 Oriya 67 1.50 29 44 4 6 Punjabi ... 3,43 48 1,47 9 1,32 3 4 Sanskrit ... 11 1 3 5 2 Sindhi .. 19 1 1.15 56 6 30 1 2 Tamil 7.77 ī 26,24 .. 10,64 .. 2,00 5,68 14 Telugu 9,51 1,78 . . 3.06 2 55 4,10 Urdu 3,15 5 3 8 10,47 3,11 50 3,53 2 Bilingual 6,87 9 3 4 60 18 1,47 70 3,76 Multi-lingual 1,52 1 11 4 46 7 72 11 Others 77 10 .. 21 8 30 7 1 .. 69,82 2,34,57 TOTAL 59 61,53 16,13 75,42 7,01 2,32 1,75

TABLE 4. STATE-WISE DISTRIBUTION OF OWNERSHIP OF NEWSPAPERS AS ON DECEMBER 31, 1968

ACCUMANTAL MANAGEMENT OF THE PARTY OF THE PA			-						of)	1000			16 0183
State/Union Territory	Central† 50	ernment	Individual	Joint Comp		Firm or Partnership	Trust	Co-operative Society	Society or Association including Religious Societies	Educational Institutions	International	Organ of Political Party	Total
	Cen	State‡	Ind	Pul	Pri	Fir	TH	38	So inc	Ed	TO O	Po	TC
			369	7	3	24	7	6	85	3		. 4	523
Andhra Pradesh .	. 4	11	39		5	10		3	27		-	3	91
CEDIOWAIA	. 1	3	104		13	16	9	1	34	1	1	1	192
DILLOT	. 2	12		20	11	46	23	10	132	12	-	4	535
Gujarat	. 1	5	271	1	1	8	3	_	15	4	-	1	169
	. 1	1	134	i	1	2		1	8	1	<u> </u>	4	96
Jammu and Kashmir .	•	3	76		8	25	8	4	119	3		3	497
	. 3	11	295	18	5	30	4	11	36	6		1	343
Madhya Pradesh .	• 11/0	6	242	2		146	46	19	361	38	200	12	1,516
	. 15	11	730	53	85	18	14	2	86	2	-	2	354
Mysore	. 1	8	203	4	14		3	3	23	4	-	1	125
0 :	. 1	6	75	-	1	8	6	4	33	14	1	4	416
70 1 1		3	331	5	1		4	3	62	10	PE	2	450
		9	348		3	9		8	180	6		3	781
	. 10	10	344	13	32	56	19	5	197	2	22 37	6	1,433
	. 10	26	1,075	15	20	63	14	1 1 1 1 1 1 1 1 1	321	9	no see l	15	1,130
*** . To 1	28	13	556	5	75	93	8	7		31	10	11	1,155
	141	5	552	24	34	75	16	12	244	1			39
TT: 1 1 D 1 1	THE PERSON NAMED IN	5	25	-	-	100	2	1	4		-	4	26
		1	3		-	1	1	1	14	2		*	11
	Military Co.	1	9		-		1	I Torr		-	1	1	74
	Comment of the last	15	38		-	2	1	3	8	5		1	3
	THE WAXES	10	2	Li Line	-		-		1	-		0	27
		3	8		-	1	11	-	3	-	-	SOTO	
~ ~~~~	1		16		3	8	-	-	3	-	-		30
Goa Andaman & Nicobars	•• —	2	-	DA STILL Y	-	SINE A	C. Park	D -	100 mg	-	-	-	2
Andaman & Micobars	· · · · · · · · · · · · · · · · · · ·	2	11 11	A 10 30		To the second	and the same				10	00	10,019
TOTAL	221	170	5,945	168	314	656	199	104	1,996	154	10	82	THE RESERVE
TOTAL	- 221	2.0			ha Cart	rel Govt		t Inch	ides newspa	apers p	ublished	by loc	al bodies

 $<sup>\</sup>dagger$  Includes new spapers published by autonomous bodies under the Central Govt. under State Governments.

### NEWSPRINT

The total import of newsprint in 1968-69 was of the order of 1,20,000 tonnes as in 1967-68. An additional quantity of about 30,000 tonnes produced by Nepa Mills in 1968-69 was also available for distribution. With the commissioning of the New Plant at Nepa Nagar, the full capacity of 75,000 tonnes is likely to be reached by the end of 1970-71. Plans for setting up more newsprint mills are being contemplated both in the public and private sectors.

Since the level of imports and indigenous production are insufficient to meet the requirements of newspapers, a certain quantity of white printing paper is being allocated since 1965-66 to daily newspapers free of excise duty under the Newsprint Allocation Policy.

Newsprint is imported mainly from USSR, Canada, U.S.A. and Scandinavian countries under commercial purchase, rupee account and 'Aid' allocations.

The entitlement of newspapers under the Newsprint Allocation Policy for 1968-69 worked out to 1,84,048·24 tonnes (up to January 31, 1969). The total number of newspapers covered during that period was 1,318 — 324 dailes and 994 periodicals. The largest share 87·48 per cent went to dailes followed by 9·12 per cent for weeklies, 2·42 per cent for monthlies and 0·73 per cent for other periodicals.

### CIRCULATION CLAIMS

During 1968, circulation claims of 428 newspapers and periodicals involving newsprint allocations of the order of 60,000 tonnes of the value of Rs. 7 crores, were verified. The circulation teams visited 34 different publishing centres in the country. The exaggeration in circulation claims detected covered 3,46,648 copies per publishing day.

The refixation of circulation of newspapers and periodicals following the circulation probes during 1968 and the consequent reduction in their newsprint quota resulted in an approximate national saving of Rs. 10·93 lakhs in foreign exchange. The total such foreign exchange savings since 1962 to end of 1968 amounted to Rs. 107·66 lakhs.

### PRESS LAWS

In general the laws which affect the Press in India today are Press and Registration of Books Act, 1867; the Indian Official Secrets Act No. XIX of 1923; Sections 124-A, 153-A, 171-G, 255, 292, 293, 294-A, 295-A, 489-A, 499-502 and 505 of the Indian Penal Code; Sections 99-A-99-G and 108 of the Criminal Procedure Code; Sections 81, 84 and 87 of the Indian Evidence Act No. I of 1872; Sections 11, 12, 44, 52 of the Customs Act No. LII, 1962; Sections 19, 20, 26, 27-A-27-D of the Indian Post Office Act No. VI of 1898; Section 5 of the Indian Telegraph Act No. XIII of 1885; Sections 40, 52 and 53(1)(b) of the Patents and Designs Act No. II of 1911; the Police

Includes newspapers published by local bodies

(Incitement to Disaffection) Act, 1922; Section 69 of the Trade Marks Act No. V of 1940; the Contempt of Courts Act, 1952 (Act XXXII of 1952); The Indian Post Office (Amendment) Act LII of 1960; Article 19(1)(a) and (g) and Clause (2) and (6) of the same Article of the Constitution of India. The amendment to Article 19 (1) (a) reads: Nothing in Sub-clause (A) of Clause 1 (the Citizen's Right to Freedom of Speech and Expression) shall affect the operation of any existing law or prevent the State from making any law in so far as such law imposes reasonable restrictions on the exercise of the right conferred by the said sub-clause in the interest of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency, morality, or in relation to contempt of court, defamation or incitement to an offence (Arts. 105 and 194 of the Constitution of India); the Tax on Newspapers (Sales and Advertisements) Repeal Act No. XXVIII of 1951; S. 7 of the Collection of Statistics Act (XXXII of 1953); the Press and Registration of Books (Amendment) Act No. 55 of 1955.

The Delivery of Books (Public Libraries) Act 27 of 1954.

The Drugs and Magic Remedies (Objectionable Advertisements) Act 21 of 1954. This Act controls the advertisement of drugs in certain cases and prohibits the advertisement for certain purposes of remedies alleged to possess magic qualities.

The Criminal Procedure Amendment Act contains a section (198B) which empowers the Government to prosecute a newspaper for defamation of public servants.

The Working Journalists (Industrial Disputes) Act (No. 1 of 1955). The Act extends the provisions of the Industrial Disputes Act, 1947 to working journalists.

The Parliamentary Proceedings (Protection of Publication) Act (No. 24 of 1956). It protects the publication of a substantially true report of any proceedings of either House of Parliament.

Section 11 of the Prize Competitions Act (Act 2 of 1955) contains rules regarding printing and publishing tickets, coupons, etc. in connection with prize competitions.

The Working Journalists Conditions of Service and Miscellaneous Provisions Act (Act 45 of 1955) regulates conditions of service of working journalists.

The Punjab Special Powers (Press) Act was passed on 5th September 1955. It empowers the authorities to control the irresponsible activities of the press indulging in and fostering communal disharmony, dissemination of 'violent' news and pernicious propaganda of a communal nature.

The Newspaper (Price and Page) Act 45 of 1956.

The Young Persons (Harmful Publications) Act No. 93 of 1956.

The Copyright Act 14 of 1957.

The Indian Post Office (Amendment) Act No. 7 of 1958. The Working Journalists (Fixation of Rates of Wages) Act 29 of 1958.

The Press and Registration of Books (Amendment) Act No. 26 of 1960.

The Newspaper (Price and Page) Continuance Act No. 36 of 1961.

The Indian Penal. Code (Amendment) Act No. 41 of 1961 and No. 36 of 1969.

The Drugs and Magic Remedies (objectionable advertisements) Amendment Act No. 42 of 1961.

Defence of India Act No. 51 of 1962.

The Working Journalists Amendment Act No. 65 of 1962.

The Press and Registration of Books (Amendment) Act No. 16 of 1965 and 29 of 1968.

The Press Council Act No. 34 of 1965.

The Press Council Amendment Act 27 of 1969.

The Criminal Law and Election Laws Amendment Act No. 35 of 1969.

### NEWSPAPERS

The following is a list of some English dailies with the names of the editors:

Amrita Bazar Patrika, Tushar Kanti Ghosh: Calcutta.

Assam Tribune, Satish Ch. Kakati: Gauhati.

Deccan Chronicle, K. R. Pattabhiram (Mg. Ed.): Secunderabad.

Deccan Herald (Mg. Editor): K. A. Nettakallappa. (Editor): V. B. Menon: Bangalore.

Eastern Times, J. B. Patnaik: Cuttack.

Economic Times, Dr. D. K. Rangnekar: Bombay.

Evening News of India, Sham Lal: Bombay.

Financial Express, G. M. Laud : Bombay.

Free Press Bulletin, A. B. Nair : Bombay.

Free Press Journal, A. B. Nair: Bombay.

Hindu, G. Narasimhan (Mg. Editor): G. Kasturi (Editor): Madras and Bangalore.

Hindusthan Standard, Sudhanshukumar Basu: Calcutta.

Hindustan Times, B. G. Verghese (Editor-in-Chief): S. Ajit Bhattacharjea (Editor): New Delhi.

Hitavada, A. D. Mani (Chief Editor): Nagpur.

Indian Express, Frank Moraes (Editor-in-Chief): Bombay, Delhi, Madras, Madurai, Vijayawada, Bangalore and Ahmedabad.

Indian Nation, Braj Nandan Azad: Patna.

Mail, T. S. Subramaniam (Mg. Editor): Madras.

Nagpur Times, A. G. Sheorey (Mg. Editor): S. B. Bedarkar (Editor): Nagpur.

National Herald, M. Chalapathi Rau : Lucknow.

Navhind Times, K. S. K. Menon : Panaji.

Patriot, Edatata Narayanan: New Delhi.

Pioneer, S. N. Ghosh: Lucknow.

Searchlight, Subhas Chandra Sarker: Patna.

Statesman, N. J. Nanporia: Calcutta and New Delhi.

Times of India, Sham Lal: Bombay, New Delhi and Ahmedabad.

Tribune, R. Madhavan Nair: Ambala.

Western Times, Ramu Patel: Ahmedabad.

### INDIAN NEWS AGENCIES

The following list is not exhaustive:

Press Trust of India (P.T.I.).

357, Dr. Dadabhai Naoroji Road, Bombay.

NAFEN—Near and Far East News (Asia) Ltd., Temple Bar Bldg., 70, Forbes Street, Bombay 1.

Dhiman Press of India,

Ludhiana (Punjab).

Luaniana (Funjao).

Rao's Press Features

160, VII Block, Jayanagar, Bangalore 11.

United News of India, 9, Rafi Marg, New Delhi 1.

Hindustan Samachar, 17-A, Shanker Market, New Delhi 1.

India News & Feature Alliance, Jeevan Deep Bldg., Parliament St., New Delhi 1.

India Press Agency, IENS Bldg., Rafi Marg, New Delhi. Eastern India News Agency, 199/A, Keshab Chandra Sen St., Calcutta 9.

Newsfeatures of India, Anand Kunj, Linking Road, Bombay-54.

Publication Syndicate, 14, Hanuman Road, New Delhi 1.

### FOREIGN NEWS AGENCIES

The following list is not exhaustive:

Agence France Presse: Bureau De New Delhi, 1, Curzon Road, New Delhi.

Associated Press (of America): 19, Narendra Place, New Delhi.

Reuters: 27, Prithviraj Road, New Delhi.

Tass News Agency of U.S.S.R.: 155, Jor Bagh, New Delhi 3.

United Press International: I.E.N.S. Building, Rafi Marg, New Delhi.

## INFORMATION SERVICES Indian Information Service

Indian Government publicity work is carried out chiefly through the following units of the Ministry of Information and Broadcasting:

1. All-India Radio, 2. Press Information Bureau, 3. Publications Division, 4. Films Division, 5. Directorate of Advertising and Visual Publicity, 6. Research and Reference Division, 7. Directorate of Field Publicity, 8. Song and Drama Division.

### PRESS INFORMATION BUREAU

The Press Information Bureau functions as a link between the Government of India and the public through the medium of the Press. It provides to the Press factual information about the activities of the Government and keeps the Government informed about public reactions, as expressed in the Press, to Government's policies and performance.

The Bureau has its offices in Srinagar, Jammu, Jullundur, Jaipur, Bhopal, Lucknow, Varanasi, Patna, Calcutta, Gauhati, Cuttack, Hyderabad, Bangalore, Madras, Cochin, Trivandrum, Poona, Bombay, Nagpur and Ahmedabad.

The Bureau's news, feature and reference services are provided in the following languages:

English, Hindi, Urdu, Gujarati, Marathi, Tamil, Bengali, Telugu, Malayalam, Assamese, Oriya, Punjabi and Kannada.

A news-letter is also being issued in Kashmiri language.

Besides issuing hand-outs, Press Notes and Press Communiques, the Bureau releases news photographs, articles and illustrated features. It also conducts tours of Press representatives to development projects and other centres of interest.

Principal Information Officer: M. L. Bhardwaj.

## DIRECTORATE OF ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising & Visual Publicity functions as the central organisation for the press advertising and visual publicity campaigns of the Ministries of the Government of India (excepting Railways), their attached and subordinate offices and a number of autonomous undertakings of the Government of India.

The Directorate has an Exhibition Division which, through its central and regional units, organises exhibitions depicting progress of the Five-Year Plans, Family Planning and other themes of national importance.

245

Director: Brig. R. Streenivasan.

British Broadcasting Corporation Post Box No. 109, New Delhi.

British Information Services (Chanakyapuri, New Delhi 21).

U.S. Information Service

Bahawalpur House, Sikandra Road, New Delhi.

BOMBAY OFFICE ("International", 16, Queen's Road Estate).

CALCUTTA OFFICE (7, Jawaharlal Nehru Road, Calcutta 13).

> MADRAS OFFICE (158, Mount Road, Madras 2).

U.S. INFORMATION SERVICE LIBRARY 24, Curzon Road, New Delhi.

AMERICAN LIBRARY (USIS) 150-B, Mount Road, Madras 2.

### PRESS ASSOCIATIONS, SOCIETIES

All-India Newspaper Editors' Conference, 50-51, Theatre Communication Bldg., Connaught Place, New Delhi-1; President, D. R. Mankekar; Secretary General, K. Subramaniam; Hon. Treasurer, Mrs. Mukul Bannerjee.

The Indian & Eastern Newspaper Society, IENS Buildings, Rafi Marg, New Delhi-1; President: M. Yunus Dehlvi (Shama Magazine); Dy. President: C. A. Narayan (Sunday Standard); Hony. Treasurer: J. M. D'Souza (Illustrated Weekly of India); Secretary: R. D. Seth.

Indian Federation of Working Journalists, Flat No. 29,
New Central Market, Connaught Circus, New Delhi 1.
President: V. N. Bhushan Rao; Secretary-General: S. B.
Kolpe; Treasurer: P. K. Ravindranath.

Indian Languages Newspapers' Association (Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay).

Press Owners' Association, Bombay (196-B, Gaiwadi, Girgaon, Bombay).

Southern India Journalists' Federation (15 Ritchie Street, Mount Road, Madras 2).

### FEATURE SYNDICATES

King Features Syndicate (235, East 45th Street, New York 17): Agents: Advertising Films of India Private Ltd., 4th Floor, Khorshed Bldg., Sir Phirozeshah Mehta Road, Bombay 1 and 21, Princess Street, Calcutta 13.

### PRESS CLIPPINGS

All-India Press Cutting Service: D-2, Amerchand Mansions, Mayo Road, Bombay 1.

Indian Press Service: 16A, Friends Colony, New Delhi 14.

The Asiatic Press-Clippings Service: P. B. No. 1663, 91, The Mall, Kingsway, Delhi 9.

International Clipping Service: Lakshmi Building, Sir Pherozeshah Mehta Road, Bombay 1. Oriental Languages Bureau: Lakshmi Building, Sir Pherozeshah Mehta Road, Fort, Bombay 1.

The Universal Press Service: 34, General Patters Road, Madras 2.

### PRESS PHOTO AGENCIES

Bombay Photo Stores Private Ltd.: 33-34, Park Mansions, Park Street, Calcutta.

News Photo Flash: 11-12, Scindia House, New Delhi.

Press Photo Bureau: 374, Pycrofts Road, Royapetta P.O., Madras 14.

### Wage Boards for Working Journalists and Non-Journalists

Details of the Constitution and the recommendations of the Wage Boards, for Journalists and Non-Journalists were given in the 1968 Directory.

After the 57-day old strike by the newspaper employees for the implementation of the Non-Journalists' Wage Board Award, the Government of India referred on September 17, 1968, the dispute to a National Tribunal presided over by Mr. Justice B. N. Banerjee, a retired judge of the Calcutta High Court for adjudication.

Pending adjudication the employers had agreed to pay to employees in addition to their existing emoluments 75 per cent of the difference between the existing emoluments and the emoluments payable under the Wage Board recommendations. They had also agreed to protect the total emoluments so payable in fixing the pay of workers in the pay scales determined by the tribunal. At the time of writing this, the adjudication was continuing.

The recommendations of the Wage Board for Journalists have been practically implemented.

### PRESS COUNCIL

The Press Council Bill was passed in Nov. 1965. The President has given his assent. The object of the Council shall be to preserve the liberty of the press and maintain and improve the standards of newspapers in India.

The Press Council was set up in Nov. 1966 with Justice J. R. Mudholkar as Chairman and 25 members.

The Press Council started functioning from the middle of November 1966, when the full complement of its membership was notified. The new Chairman Mr. N. Rajagopala Ayyangar took over on May 4, 1968. The Press Council's first annual report was presented to the Parliament on Aug. 30, 1968 by the Minister for Information and Broadcasting.

The report said the present undefined state of the law of privileges had placed the press in an unenviable position in the matter of comments on the proceedings of Parliament.

In the opinion of the council, there might be no great difficulty in separating the issue of privileges concerning the press from the entire question of Parliamentary privileges.

The report also suggests legislative measures to facilitate honest and fair comment as well as faithful and accurate reporting of the proceedings of legislatures.

## SOCIAL WELFARE IN INDIA

AT present there are 26 Schools of Social Work in India. There is also an Association of Schools of Social Work. The alumni from the schools of social work have formed a professional association namely the Indian Association of trained social workers. Most of the schools provide post-graduate training programme.

The Indian Council of Social Welfare is an apex voluntary organization which brings together voluntary and professional workers, national and state welfare agencies either in the state or private sector. The Council has 17 branches all over India.

There are the Ministry of Social Welfare at the Central Government level and the State Department of Social Welfare.

Social Welfare generally covers the following fields, viz. Community Welfare Services; Family, Child and Youth Welfare Service; Public Welfare Administration; Social Security Services; Services for the Maladjusted and Handicapped Groups; Social Defence and Correctional Administration; Social Legislation and Social Action; Social Research; Training in Social Work; Tribal Welfare and Rural Reconstruction; Social Work Research; Programme for Economic Uplift of Weaker Sections of the Community etc.

A number of all India agencies organise all India, regional or state meetings to discuss specialised topics. The Indian Council of Social Welfare holds a biennial conference and a biennial seminar with all India participation. In 1969 a seminar on "Role of Social Welfare at Local Authority Level" was held at Delhi in February-March 1969 in collaboration with the Delhi School of Social

Work and Indian Council of Social Welfare. In November 1969, it organised national conference on Policies and Programmes for the welfare of the weaker sections of the community with stress on eradication of untouchability.

Funds for research in social work are available from the Research Programmes Committee of the Planning Commission, the Dept. of Social Security and the University Grants Commission, as well as other foreign bodies such as the U.S.A.I.D. The Indian Council of Social Welfare completed two research projects (i) Survey of Employment Positions and Functions of Professional Social Workers and (ii) Evaluation of Institutional Programme in relation to After Care of Released Children under the Bombay Children Act (1948). A third project on "Rehabilitation of Children other than Delinquent under the Bombay Children Act (1948) has been carried out, with the help of U.S. Health, Education and Welfare Department. The Indian Council of Social Welfare has started a Volunteer Bureau to recruit volunteers willing to do social work and to find suitable agencies which can absorb these volunteers.

### SOME ALL-INDIA ACTS

The Special Marriage Act, 1954; The Hindu Marriage Act, 1955; The Hindu Succession Act, 1956; The Hindu Adoption and Maintenance Act, 1956; The Hindu Minority and Guardianship Act, 1956; The Maternity Benefit Act, 1961; The Children Pledging of Labour Act, 1933; The Employment of Children Act, 1938; The Reformatory Schools Act, 1897; The Lepers Act, 1898; The Indian Lunacy Act, 1912; The Untouchability Offences Act,

1955; Suppression of Immoral Traffic in Women and Girls Act, 1956; The Women's and Children's Institutions Licensing Act, 1956; The Orphanages and other Charitable Institutions Supervision and Control Act, 1960; The Probation of Offenders Act, 1958; The Union Territories Children's Act, 1960.

### FAMILY AND CHILD WELFARE

At the end of the Third Plan, there were 264 welfare extension projects for women and children functioning in coordination with community development, 306 welfare extension centres run by recognised voluntary organisations and 1,472 welfare extension services run by registered Mahila Mandals. There were also 17 integrated child welfare projects in progress in the States. About 6,000 voluntary organisations have received grants-in-aid through the Central and State Social Welfare Boards for providing specific welfare services to women and children and to handicapped persons. About 625 condensed courses in education and 75 production units were instituted in urban areas for the benefit of women. The Central Social Welfare Board also set up 66 urban welfare extension projects. A number of night-shelters were also organised. Programmes in moral and social hygiene and after-care services were started at 16 institutions. For the rehabilitation of handicapped persons 27 training-cum-home centres were established.

### Traffic in Women

The Suppression of Immoral Traffic in Women and Girls Act, 1956 applies to the whole of India.

From the time the Act was enforced on May 1, 1958 to March 1960 the Central Social Welfare Board set up 68 protective homes in the country.

The Central Social Welfare Board appointed an Advisory Committee to study the problem of social and moral hygiene in the country. The recommendations of the committee were accepted and institutions were set up on the pattern described below.

At the State level: (i) One home for rescued women needing a fairly long period of adjustment prior to rehabilitation. (ii) Two homes for the aftercare of persons discharged from correctional institutions. (iii) Two short-term rehabilitation homes for those discharged from non-correctional institutions. (iv) Strength of each Home not to exceed 100. At the District level: (i) One shelter temporarily housing persons needing aftercare (maximum period 3 months). (ii) One reception centre for temporary stay of women rescued from moral danger.

The Association for Moral and Social Hygiene in India, 4, Rouse Avenue, New Delhi, has got fourteen State Branches with a number of Dist. Branches.

The Association runs a Student Counselling Centre in the University of Delhi. Centres for Family Counselling and Marriage Guidance are established in the other parts of the country. It also conducts periodical research.

### Children

Children's Acts in relation to delinquency are in force in the States of Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu, Mysore, Punjab, Kerala, U.P., West Bengal and all Union Territories. Reformatory Schools Act of 1897 is in force in all other States.

The Borstal Schools Acts, which are slightly different in scope, are in operation in the States of Andhra, Gujarat, Madhya Pradesh, Maharashtra, Tamil Nadu, Mysore, U.P., West Bengal and Kerala.

The problem of juvenile delinquency is mainly the concern of State Governments.

The Central Bureau of Correctional Services was established in August 1961 with the aim of developing and co-ordinating a uniform policy to standardise the collection of statistics on a national basis. It exchanges information with foreign governments and the United Nations Agencies. It promotes research, training and stulies and surveys in the field of prevention of crime. The Central Government have sponsored a care programme under which assistance is given to the States. At present, there are 50 Government and 53 Voluntary Remand Homes, 48 Government and 63 Voluntary Certified Schools, 9 Borstal Schools and 15 Boys' Clubs and some Probation Hostels in different States in the country.

The Children Act, 1960 provides for establishment of Child Welfare Boards and Juvenile Courts. The child welfare board deals with destitute and neglected children while the juvenile courts are expected to deal with the delinquents. But this procedure is not being followed in all the States. In Maharashtra there is a comprehensive Children Act. In all the States, where the Children Act is applied, Remand Homes, Certified Schools and After-Care Hostels are established. In some States, Remand Homes are also termed as observation homes. Under preventive programme, Juvenile Aid Police Units are established through the Police Departments and Boys' Clubs are also run. Pilot programme for the prevention of Juvenile Vagrancy is recently undertaken.

Under the Children's Act, more children come under its purview as a result of destitution than delinquency.

A new trend in Child Welfare is the development of foster family homes, which provide emotional and social security for children in need of such home on a temporary basis. This is being promoted by the Central Social Welfare Board, through voluntary welfare agencies in Bombay, Madras and Delhi. Families caring for such children are usually given a small sum for maintenance of the children. Here are many important associations working for children on an all India level namely, the Indian Council for Child Welfare, the Balkan-ji-bari and others. These have State units. They promote the welfare of children in various ways. Another recent development is the India Sponsorship Committee which work in cooperation with the International Union for Child Welfare. Foreign sponsors, largely from U.S.A., U.K. & Canada, sponsor certain children through the International Union for Child Welfare and the India Sponsorship Committee. These children receive quarterly instalments of money, which is used chiefly as a means of educational scholarship and also for other needs of the child. Chiefly intelligent children from the lower economic groups are selected. The idea of this movement is to bring about bonds of friendship between the children and the sponsors who take a personal interest in the children's development. This movement helps to develop an Indian Sponsorship Programme in other welfare agencies also. The programme aims at helping the children stay with their families and is family oriented.

### BEGGARS

The Criminal Procedure Code treats vagrants and vagabonds alike and provides penalties under Sections 55 (i)(b) and 109(b).

Special Acts have been passed by most of the States to prohibit begging in public places. In others, the municipal and police Acts provide measures against begging.

The Government of India set up a committee in 1968 to study the problem of kidnapping and maiming children for purposes of begging under the chairmanship of the

Director, Central Bureau of Correctional Services. The Committee submitted its report with necessary recommendations to deal with the problem more sternly. There are at present 47 Govt. and 14 voluntary Beggar Homes in the country.

### SOCIAL SERVICE AGENCIES

The groups of voluntary social work in India largely fall under the following heads: Administrators; Professional social workers; Missionaries; The Gandhian social workers; and voluntary social workers belonging to the various private agencies.

### Schools of Social Work

The Tata Institute of Social Sciences, Sion-Trombay Road, Chembur, Bombay-71; The Delhi School of Social Work, University of Delhi, 3, University Road, Delhi 7; The Madras School of Social Work, Casa Major Road, Egmore, Madras 8; Faculty of Social Work, M. S. Univer-sity of Baroda, Fatehgunj, Baroda-2; Department of Social Work, Lucknow University, Lucknow; Institute of Social Sciences, Kashi Vidyapith, Varanasi; The Indian Institute of Social Welfare & Business Management, College Square West, Calcutta 7; The Institute of Social Service, Nirmala Niketan, 38 New Marine Lines, Bombay 1; The Bombay Labour Institute, Dadabhai Chamarbaughwala Road, Parel, Bombay 12; The P. S. G. School of Social Work, Peelamedu P.O., Coimbatore; The National Institute of Social Sciences, 24 Willington Road, Richmond Town, Bangalore; The Institute of Social Services, School of Social Work, Mangalore; St. Xavier's Institute of Labour Relations, Jamshedpur; Institute of Social Sciences, University of Agra, Agra; The Department of Sociology and Social Work, Andhra University, Waltair; Department of Labour and Social Welfare, Patna Univer-Sty, Patna; University School of Social Sciences, Gujarat University, Ahmedabad; The School of Social Work, Indore Christian College, Palasia, Indore; The Udaipur School of Social Work, Saletia Ground, Udaipur; The Department of Social Work, Sacred Heart College, Thevara, Ernakulam 3, Kerala; The Xavier Institute of Social Services, St. Xavier's College, Ranchi, Bihar.

Schools for teaching Social Work at the undergraduate level, are slowly opening up—such as the Karve Institute of Social Services in Poona; Andhra Pradesh School of Social Work, Red Hills, Hyderabad at the undergraduate level—by the Andhra Pradesh State Branch of Indian Council of Social Welfare; Tripude Institute of Social Work, Civil Lines, Sadar, Nagpur; and Visva Bharathi Palliseksha Sadam, Sriniketan P.O., District Birbhum, West Bengal.

An association of schools of social work has been formed which is setting up criteria for accredited schools of social work. Over and above the professional schools of Social Work, there are various other training centres run by voluntary bodies for training welfare workers. Training schemes for training workers for particular programmes are also being undertaken by the Govt. in cooperation with voluntary welfare agencies.

### Voluntary Agencies on National Level

Child Welfare: Balkan-ji-Bari, Juhu Road, Santa Cruz (West), Bombay 54; Indian Council for Child Welfare, Room No. 14-15, Block 'A', 'B' Barracks, Queensway, New Delhi; Indian Council for Child Education, Sumanas, 39, Edward Elliots Road, Madras 4.

Youth Welfare: Y.M.C.A. (5, Russel Street, Calcutta 16); Y.W.C.A. (Parliament Road, New Delhi); Bharat Scouts and Guides Association (Regal Building, Parliament

Street, New Delhi); Bharat Sevak Samaj (27-A, Theatre Communication Buildings, Connaught Place, New Delhi); Youth Hostels Association (2, East Park Road, New Delhi 5); All India Boys Scouts Association (7, Jungpura—B—Mathura Road, New Delhi 14).

Women's and Family Welfare: All India Women's Conference (C/o Family Planning Association of India, Metropolitan House, Dadabhoy Naoroji Road, Bombay 1); National Council of Women in India (Town Hall, Bombay 1); Kasturba Gandhi National Memorial Trust (Kasturba Gram, P.O. Indore, Madhya Pradesh).

Health: Tuberculosis Association of India (20, Red Cross Road, New Delhi 2); Indian Red Cross Society (20, Red Cross Road, New Delhi 2); All India Cancer Prevention Society (Tata Memorial Hospital, Parel, Bombay 12); Hind Kusht Niwaran Sangh (Red Cross Road, New Delhi); Akhil Bharat Sharirik Sikshan Maha-Mandal (Tilak Road, Nagpur, Maharashtra); Indian Medical Association (Hanging Bridge, Daryaganj, Delhi 7).

Rebabilitation of the Handicapped: Convention of the Teachers of the Deaf in India (50, Bondel Road, Ballygunj, Calcutta); All India Lighthouse for the Blind (89, Elliot Road, Calcutta); National Association for the Blind (Jehangir Wadia Building, Mahatma Gandhi Road, Bombay 1); All India Blind Relief Society (11-F, Lajpatnagar, New Delhi); The Fellowship of the Physically Handicapped (Hornby Vellard, Haji Ali Park, Bombay-34); The Indian Council for Mental Hygiene (Cumbatta Chambers, Eros Building, 42, Queen's Road, Bombay).

Rural Welfare: Sarva Seva Sangh (K33-4, Golghar, Varanasi, U.P.); India Village Service (I.V.S. House, Marhera, Dist. Etah, U.P.).

General Social Welfare: Servants of India Society (Poona 4); Ramkrishna Mission (Belur, Dist. Howrah); Gandhi Memorial Fund (5, Mansingh Road, New Delhi); Salvation Army (Moreland Road, Bombay 8); Friends' Service Unit (1, Upperwood Street, Calcutta 16); All India Seva Samiti (Seva Samiti Building, Allahabad).

Rural Women's Welfare: Bharatiya Grameen Mahila Sangh (9/104 Jamnabar Hutments, Block II, Mansingh Road, New Delhi 11).

Relief and Rehabilitation: United Council of Relief and Welfare (Rashtrapati Bhavan, New Delhi).

Social Education: Indian Adult Education Association (17-B, Indraprastha Marg, New Delhi); Jamia Milia (Okhla, Delhi); Literacy House (Lucknow).

Welfare of Under-Privileged Groups: Harijan Sevak Sangh (Kingsway, Delhi); Bhartiya Adimjati Sevak Sangh (Kingsway, Delhi 9).

Co-ordination: The Indian Conference of Social Work (Central Office: 117, D. N. Road, Bombay 1).

International Welfare Agencies in India: The following are some of the International agencies and organisations working in the country: International Council on Welfare (Regional Office for South East Asia and Western Pacific, 175, D. N. Road, Bombay I); Asia Foundation (Post Box 149, New Delhi); Ford Foundation (32, Ferozeshah Road, New Delhi); World Health Organisation (S.E.A. Office, Patiala House, Hardinge Avenue, New Delhi); Rockefeller Foundation (20/29, Diplomatic Enclave, Kautilya Marg, New Delhi); International Labour Organisation, Indian Branch (Mandi House, New Delhi); International Union for Child Welfare (Consultant for Far East Asia, Room Nos. 14 & 15. Block A. Barracks

B, Queensway, New Delhi): United Nations International Children's Emergency Fund (UNICEF House, 11, Jor Bagh, Delhi); United Nations Educational, Scientific and Cultural Organisation (Old Mill Road, New Delhi); Food and Agricultural Organisation, UNO (21, Curzon Road, New Delhi); Cleveland International Programme for Youth Leaders and Social Workers Inc. (12, Hailey Road, New Delhi); The American Peace Corps in Delhi (61, Sundar Nagar, New Delhi-11).

Other Agencies Functioning in India: Youth Welfare Association, 29-24 Shakti Nagar, Delhi-6; Gyan Prakash Yuvak Sangh, 653, Chuna Kankar, Mathura, U.P.; Social Service League, Indraprastha College, Alipur Road, Delhi, Society for the Education of the Crippled (Child and Adult), Chunilal Mehta Hut, Mahatma Gandhi Road, Bombay-1; Association of Moral and Social Hygiene, Barrack No. 4, Dinsha Wacha Road, Bombay 1. All India Mass Education Society, Gonda.

Bhoodan Movement: Special mention must be made of the Bhoodan Movement initiated by Acharya Vinoba Bhave, one of the ablest disciples of Gandhiji. He is effecting a silent but nevertheless remarkable social revolution within the country by the voluntary gift of land (Bhoodan), wealth (Sampattidan), labour (Shramadan) and life (Jeevandan).

### CENTRAL SOCIAL WELFARE BOARD

The Board has its Central office in New Delhi. There are 25 State Social Welfare Advisory Boards—one in each State/Union Territory (except Kerala)—which advise and assist the Central Board in the formulation of its policies and interpretation and implementation of its programmes to voluntary organisations.

The main objectives of the Board (the Company) include the study of the needs and requirements of Social Welfare Organisations, evaluation of its programme, coordination on social welfare activities of various Ministries of Central and State Governments, promotion and setting up of social welfare organisations in places where no such organisations exist, rendering technical and financial assistance to deserving institutions for promoting welfare activities viz., welfare of the family, women, children, the handicapped and assistance in cases of unemployment, under employment, old-age, sickness, disablement and other cases of un-deserved want, training in social work, Pilot projects and emergency relief in cases of calamity — national, natural or otherwise.

A sum of Rs. 194.97 lakhs was released by the Board in 1968-69 in the form of grants to registered voluntary welfare institutions all over the country. The implementation of the programmes of the Board is supervised by the Members of the Central Board, State Boards and Field Inspectors and Welfare Officers.

### Programmes

General Grant-in-aid Programmes: The Board has been giving grant-in-aid to voluntary welfare institutions working for the welfare of women, children handicapped, aged and the infirm, leprosy and T.B. patients and for persons released from correctional services.

During the year 1968-69 the Board has released Rs. 35.71 lakhs to 2,819 institutions, under general grantin-aid

From its inception upto the end of March 1969 the Board had sanctioned nearly 36,943 grants amounting to about Rs. 840.49 lakhs under its general grant-in-aid programme. These grants cover services for children,

women and the handicapped groups of persons in voluntary welfare institutions.

Welfare Extension Projects and Mahila Mandals, in rural areas: The activities include Balwadi (a combination of creche and pre-primary school), Craft Centres for women, Maternity Services, Social Education for adult women, General Medical Aid, etc.

- (a) Welfare Extension Project (Original Pattern): Only 8 Welfare Extension Projects of Original Pattern with 40 centres continued to function in remote, hilly and backward areas. These are run by the Project Implementing Committees. A sum of Rs. 2.75 lakhs was released for these projects in 1968-69.
- (b) Mahila Mandals: The activity of Welfare Extension Project (Original Pattern) in rural areas of the country were, in 1961, handed over to voluntary organisations or newly formed Mahila Mandals. These are being assisted by the Central Board to the extent of 75 per cent of their estimated expenditure. During 1968-69 a sum of Rs. 28-39 lakhs was released to 541 voluntary organisations/Mahila Mandals for conducting activities in 1,472 centres.
- (c) Welfare Extension Project (CD): To avoid duplication with the activities carried out by the Community Development Blocks it was decided that Welfare Extension Projects be started only in Community Development Blocks and be run by a specialised agency like the Central Social Welfare Board and by pooling the resources of the voluntary organisations for a common goal.

During 1968-69 a sum of Rs. 53·02 lakhs was released for 224 projects conducting activities in 2,297 centres.

Family and Child Welfare Programmes: The Family and Child Welfare scheme for the welfare of women and children in rural areas was launched on November 14, 1967. The programme attempts to deal with the family as a unit. By the end of 1968-69, 117 Family and Child Welfare Projects have started functioning throughout the country. By the end of 1969-70, 175 projects may be functioning. A sum of Rs. 29·49 lakhs was spent on this programme during 1968-69.

For the training of field staff and supervisors of this programme, six Family and Child Welfare Training Centres have been established so far at Sriniketan (West Bengal), Gandhi Gram (Tamil Nadu), Baroda (Gujarat) and Allahabad (Naini) (U.P.), Indore (M.P.) and Jamia Milia (Delhi).

710 field workers were trained during 1968-69 at a cost of Rs.  $4\cdot09$  lakhs.

Welfare Extension Projects (Urban): The activities provide community welfare centres, creches, balwadit, ante-natal and post-natal advisory services, welfare health centres, hobby clubs, vocational guidance and other services. A total expenditure of Rs. 1.84 lakhs was incurred on 30 Projects functioning during 1968-69 benefiting about 13,500 families.

Socio-Economic Programme: Under this scheme, grants are given to voluntary welfare institutions for setting up production units of small industries, units as ancillary to large industries, handloom training-cumproduction units, handicrafts training, procurement and production units, etc. Towards the end of 1968-69 the Board had sanctioned about Rs. 55 lakhs for 114 units. By the end of March 1969, 102 such units were functioning.

Condensed Courses of Education for Adult Women: Adult women of the lower income group are prepared for middle school or matriculation examinations in condensed courses of two years duration. Up to the end

of March 1969, the Board had sanctioned 1,108 courses in different parts of the country, benefiting about 25,750 candidates at a cost of Rs. 236.38 lakhs.

Holiday Camps for Children: This scheme enables children of low income groups to be taken to holiday camps at hill stations or other summer or sea resorts, outside their home towns, during vacation free of cost. Maximum financial assistance of Rs. 3,000 is made available for each camp. Proposals are under consideration for organising Inter-State Camps and also to set up Holiday Homes where such camps can be held. A sum of Rs. 6.25 lakhs was released during 1968-69 and some 250 camps have been organised benefiting about 12,500 children.

Special Child Welfare Programmes: Demonstration projects of integrated child welfare services for meeting the total needs of children in the age group 0 to 6 were set up by the Government of India, during the Third Five Year Plan. The Board was to organise the Balwadis in these projects. Over 405 balwadis have been set up in 12 projects. The other special child welfare schemes which the Board took up during the Third Plan Period include training courses for Balsevikas (Child Welfare Workers) required for Child Welfare Services.

Welfare Work in Border Areas: Welfare Centres were organised on the lines of the Original Pattern Projects in the border areas of NEFA, Leh, in Jammu and Kashmir, Lahaul and Kinnaur in Himachal Pradesh, Chamoli, Uttar Kashi and Pithoragarh in Uttar Pradesh and Kutch and Banaskantha in Gujarat. The expenditure on these projects is shared in the ratio 2:1 by the Central and the State Governments. There are, at present, 17 projects in these areas with 63 centres. During the year an amount of Rs. 2.90 lakhs has been released as grants for these projects. Apart from running these projects, the Board continues to give grants to voluntary organisations under its grant-in-aid programme for conducting welfare services in the border areas.

Integrated Pre-School Projects in Urban Areas: This programme seeks to provide basic amenities necessary for the growth and development of children in slum areas predominantly populated by the low-income groups. Nine such projects functioned during this year in the States of Assam, Gujarat, Kerala, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal and the Union Territories of Chandigarh and Delhi. About 800 children are benefited from this programme daily.

### FOURTH FIVE YEAR PLAN

In addition to the existing programmes the following schemes are also proposed to be implemented by the Board during the Fourth Five Year Plan (1969-74).

- (a) Special Child Welfare Schemes: (i) Publication of pictorial Literature; (ii) Toy Industry; (iii) Subsidy for preparation of educational and recreational equipment; (iv) Seasonal creche in rural Balwadi; (v) Creche for children of working mothers; (vi) Day Care centres for children of working mothers; (vii) Permanent Holiday Homes; (viii) Creche/Balwadi at sites of Public works not covered under Factories Act; (ix) Recreation Centres for vagrant boys; (x) Model Homes for Children; (xi) Aid to Dependent mothers; (xii) National Centres for Child Welfare and Children Bureau; (xiii) Research Projects on special child welfare problems.
  - (b) Field Counselling Services;
- (c) Revised Scheme of Urban Welfare Extension Projects;
  - (d) Non-student Youth Programme;

Publicity: The Board brings out two monthly journals "Social Welfare" in English and "Samaj Kalyan" in Hindi

Bulletins in regional languages are also brought out by the State Boards. The Board continued to bring out the monthly pamphlet 'Parivar Kalyan' giving activities carried out under Family and Child Welfare Programmes.

A documentary "Life Begins anew" highlighting Board's programmes of "Condensed Courses of Education for Adult Women" and the scheme of "Training-cum-Production Units" under its Socio-Economic Programme to provide work and wages to needy women and handicapped was released in January 1969.

Research & Evaluation: During the year, study notes entitled (i) 'Analysis of the courses of Imbalance in grants released by the Board;' and (ii) 'Schemes of Non-Student Youth welfare for implementation during the Fourth Five Year Plan' were undertaken and completed.

The Board collaborated in the publication of a three Volume Encyclopaedia of Social Work in India brought out at the instance of the Planning Commission.

A guide book on Family and Child Welfare Programme was also brought out in April 1968.

## FOREIGN AID TO INDIAT

THE total amount of external assistance available during 1968-69, comprising aid in the pipeline (Rs. 2,070 crores) and fresh authorizations including aid in the form of debt rescheduling/postponement (Rs. 804 crores) amounted to Rs. 2,874 crores. This was considerably less than Rs. 3,271 crores available during 1967-68 and reflected the tapering of aid in the pipeline due to a sharp drop in fresh commitments during 1967-68. Fresh authorizations during 1968-69 at Rs. 804 crores were even lower than the authorizations of Rs. 900 crores in 1967-68. If, however, food and PL 480 assistance are excluded, authorizations for 1968-69 amounted to Rs. 623 crores as compared to Rs. 582 crores in 1967-68. The increase was due to an IDA non-project credit of Rs. 94 crores (\$125 million) and U.S. assistance for the Trombay fertilizer project and for the purchase of two jumbo jets.

Preliminary data show that Rs. 157 crores (\$209 million) of non-project aid including debt relief was authorized up to the end of January 1970; project aid of Rs. 180 crores (\$240 million) has also been authorised.

The pipeline (amounts authorised less amounts disbursed) of project and non-project assistance declined by Rs. 82 crores during 1968-69 from Rs. 1,899 crores at the end of 1967-68 to Rs. 1,817 crores at the end of 1968-69 comprising Rs. 1,200 crores of project assistance and Rs. 617 crores of non-project assistance.

The aid utilised during 1968-69 amounted to Rs. 896 crores, which was lower by Rs. 298 crores than in 1967-68. A decline in food assistance from Rs. 330 crores in 1967-68 to Rs. 186 crores in 1968-69 accounted for Rs. 144 crores. The balance was accounted for by a decline in non-food aid

<sup>†</sup> Source: The Government of India Economic Survey for 1969-70 and Explanatory Memorandum on the Budget of the Central Government for 1970-71, Part II.

from Rs. 864 crores in 1967-68 to Rs. 710 crores in 1968-69. Disbursement of non-project aid in 1968-69 amounted to Rs. 411 crores while project aid was Rs. 272 crores.

Total debt service charges rose from (post-devaluation) Rs. 143 crores in 1961-62 to (post-devaluation) Rs. 227 crores in 1965-66. These payments increased further to Rs. 333 crores in 1967-68 and Rs. 375 crores in 1968-69. Debt service payments will continue to be heavy during

the next few years and are estimated to be around Rs. 412 crores during 1969-70. Due to the increase in debt service payments and reduction in authorisations the net aid received during 1966-67 and 1967-68 amounted to Rs. 860 crores aud Rs. 861 crores respectively. In 1968-69 it was only Rs. 521 crores. If allowance is made for specially large food imports during the past years, net aid excluding food aid drops sharply from Rs. 531 crores in 1967-68 to Rs. 355 crores in 1968-69.

### FOREIGN AID (SUMMARY)

(Rs. crores)

				Loans and Repays		Grants	Total	Assistance under U.S. P.L.	Grand
				Foreign Currency	Rupees	Grants	(2+3+4)	480/665 etc.	Total
Α.	ΑŢ	JTHORISATIONS:							
	1.	Upto the end of First Plan		212.2	14.6	138.0	364.8	16.9	381.7
	2.	During Second Plan		1,059.7	226.8	121.6	1,408.1	1,130.7	2,538.8
	3.	During Third Plan		2,269.1	46.0	132.6	2,447.7	450.6	2,898.3
	4.	1966–67		1,019.2	18.0	79.3	1,116.5	306.8	1,423.3
				(93.2)	()	(0.8)	(94.0)	(149.3)	(243.3)
	5.	1967-68		455.1		16.9	472.0	242.9	714.9
100	6.	1968-69		804.9		65.5	870 • 4	71:6	942.0*
	7.	April-Sept. 1969-70@	70.00	240.1	***	16.0	256 · 1	16.2	272.3
		Total Authorisations		6,060 · 3	305•4	569.9	6,935.6	2,235.7	9,171.3
В. 1	UT	TILISATIONS:							
	1.	Upto the end of First Plan		124.1	2.3	70.2	196.6	5.1	201.7
	2.	During Second Plan		608.0	116.8	160.7	885 - 5	544.8	1,430.3
	3.	During Third Plan		1.751 · 9	156-4	106-2	2,014.5	853 • 2	2,867.7
	4.	1966-67		629.4	9.5	92.7	731 • 6	324.0	1,055.6
	H			(65-4)	(1.7)	(3.7)	(70.8)	(62.1)	$(132 \cdot 9)$
	5.	1967-68		801 · 7	4.1	60.5	866-3	310-9	1,177.2
	3.	1968-69		711.6	7.4	61.3	780-3	84.6	864.9
	7.	April-Sept. 1969-70@		373.3		10.9	384.2	81.8	466.0
		Total Utilisations	**	5,000 • 0	296.5	562 • 5	5,859.0	2,204.4	8,063 • 4

Note: - Figures in brackets represent amounts authorised/utilised during the predevaluation period i.e. from April 1 to June 5, 1966.

### LOANS

India has received assistance in the form of loans and grants from friendly foreign countries and international organisations. The first statement shows the amounts of loans authorised and the sums drawn against them and the second statement shows the repayments in respect of each loan.

<sup>@</sup> Provisional Information regarding grants is incomplete.

In the case of P.L. 480 assistance, the amount authorised represents the value of commodities payable in rupees and the term utilised represents the value of rupee deposits made against the commodities imported. PL 480 assistance repayable in convertible currency is included in the loans represents the control of the co repayable in foreign currency.

In addition to the above figures, debt relief of Rs. 82·1 crores in the form of rescheduling/postponement was provided by Japan, Canada, U.S.A. and I.B.R.D. Debt relief in the form of refinancing credits or grants is included in the figures of authorisation and utilisation.

The authorisations are not of cancellations/de-obligations. In the case of PL-480, a sum of Rs. 107.6 crores remained unutilised at the end of the Third Plan after taking into account a sum of Rs. 87.5 crores for which no imports were expected. A further sum of Rs. 7.0 crores was not drawn at the end of 1967-68.

<sup>\*</sup> Includes a U.S. loan of Rs. 168.8 crores which was committed for 1967-68 but for which agreement was signed in 1968-69.

N.B.—Figures of aid authorised based on commitments made may not tally with those on the basis of agreements signed.

Statement of Receipts

(In lakhs of rupees)

	(	Countri	es			Amount of loans authorised	Actuals 1968-69	Revised 1969-70	Estimated balance as on 31-3-70 at post-devalua- tion rate of exchange	Budget 1970-71
U.S.A.						36,32,26	4,43,79	3,25,56	7,09,49	2,77,50
U.S.S.R.		101 1980			4	6,74,89	56,49	71,56	3,66,27	42,33
U.K	1.1	-				6,16,09	54,85	69,81	81,73	27,51
Canada						1,99,96	27,42	26,17	97,46	43,84
Federal Rep	ublic	of Geri	nany			5,21,09	49,74	42,40	51,20	28,84
Japan				40.00		2,62,58	55,80	25,74	26,72	9,50
Switzerland	-		ATT NO.			22,88	2,14	3,15	10,59	3,40
Czechoslova	kia		11.	Marie .		63,10	16,13	8,40	31,00	6,24
Yugoslavia	1.01	house and				81,43	67	65	65,19	26
Poland						40,30	2,15	5,07	29,80	3,37
Austria						15,67	2,93	2,23	80	77
Kuwait Gov	ernme	nt	Male Con			34,19				New York
Netherlands		10				32,16	4,72	6,51	2,24	2,24
Denmark						11,48	1,56	1,02	4,88	4,87
New Zealand	1		11.00			33				
Sweden						17,83	2,04	4,69	8,35	3,92
Bahrain			Ve - 67			11,15		4,12	5,56	5,55
Italy				100		6,91	1,66	2,13	1,25	1,25
Belgium	Jan .	Second H	A			39,00	5,51	10,39	30,35	17,15
France				A CONTRACTOR		12,50			12,50	4
Hungary			200	1		11,25		And the San San	11,25	4
Bulgaria	1000			Seelul .		12,88	12,88			
Government	of Qa	tar			1000					4
Internationa	l Ager	ncies					The state of the s			STATE WAY
I.B.R.D.						2,94,06	9,61	10,23	44.08	29,98
I.D.A.			100000	Villa III		6,60,92	57,49	94,25	55,32	40,37
New Cred	its		1		1000					1,70,00
Grand 7	Cotal		20.0			72,82,77	8,07,31	7,14,10	16,46,03	7,19,00

## Statement of Repayments

(In lakhs of rupees)

Country	Actuals from 1955-56 to 1968-69	Revised 1969-70	Budget 1970-71
U.S.A	2,02,33	46,24	51,68
U.S.S.R.	1,60,79	44,90	62,36
U.K	97,68	23,71	16,59
Canada	12,72	1,76	3,11
Federal Republic			
of Germany	1,79,57	24,70	28,17
Japan	22,98	3,56	21,47
Switzerland	75	1,72	2,53
Czechoslovakia	5,93	5,02	6,52
Yugoslavia	5,35	3,46	3,30
Poland	4,70	1,90	2,25
Austria	2,20	81	1,11
Kuwait			elegas or area o
Government	28,11	4.34	4,34
Denmark	54	15	28
New Zealand	31	9	
Sweden			
Bahrain	4,86	71	71
France	80	1,19	1,50
Qatar	3,52	94	94
Miscellaneous			
Credits		4,47	4,47
International			
Agencies			
I.B.R.D. Loans	1,01,96	9,87	21,84

### GRANTS

### I. Assistance under the Colombo Plan

Assistance is received from the Commonwealth countries under the Colombo Plan in the form of equipment, materials, etc. and services of experts. This includes grants in kind in the shape of raw materials for industry, equipment for dairy development, equipment for College of Engineering, Delhi, Tea Research Association, Central Mechanical Engineering Research Institute, Tata Memorial Centre, Post Graduate Institute of Medicine, Chandigarh, Indian Institute of Technology, non-project non-commodity imports for private sector, etc. An amount of Rs. 6·19 lakhs was received from New Zealand Government for the Bombay Milk Scheme. Greasy wool was received from Australia to facilitate production and export of hosiery, fabrics, etc.

### II. Assistance from the Govt. of U.S.A.

(a) Assistance under PL-480.—Grants under P.L. 480 are expected to amount to Rs. 10 crores this year and Rs. 16·40 crores next year. A sum of Rs. 5 crores this year and Rs. 7·40 crores next year will be paid back to A.I.D. to meet the local cost of experts.

(b) Assistance under Technical Co-operation Programme.—The Indo-U.S. Technical Co-operation Programme agreement of 1952 provides for funds to be made available by the U.S. Government for mutually agreed projects and includes development loans and grants. Grants have been made in such fields an Agriculture and Natural Resources, Industry and Training, Transport and Communications, Health and Sanitation, Education and Public Administration. The grants are in the form of materials and equipment.

### III. Assistance from the Govt. of Norway for Fisheries Development

Since 1952, Norway has been assisting this country in the development of fisheries. The project inter alia aims at raising the standard of living of the fishermen through an increase in the return for their activity by improvement of fishing methods, efficient distribution of fresh fish and improvement of fish products. The activities of the project, which were formerly confined to the State of Kerala, have now been extended to the States of Tamil Nadu and Mysore also.

### IV. Other Assistance

Foreign assistance is also received from international philanthropic organisations like the Rockefeller Foundation and the Ford Foundation for schemes in the field of education, public health, agriculture, social uplift, community development, etc. Assistance is also received from certain specialised agencies of the United Nations Organisation such as United Nations Technical Assistance Admn., United Nations Special Fund, United Nations Children's Emergency Fund, Food and Agricultural Organisation, W.H.O., World Meteorological Organisation, etc.

Food Aid from Australia, Canada, Federal Republic of Germany, Denmark, France and European Economic Community in the form of wheat grants is estimated at Rs. 28 crores this year and Rs. 20 crores next year.

In addition, fertiliser is expected as aid from certain countries like Austria, Federal Republic of Germany, Sweden, etc. and milk powder from the Dairy Boards of Australia and New Zealand.

## U. S. AID TO INDIA

UNITED States economic assistance to India commenced in 1951 with a loan of \$189.7 million (Rs. 142.28 crores) to purchase two million tons of wheat. Since then the United States has extended support to many aspects of India's development programme. U.S. aid through December 1969 totals \$9,340.2 million (Rs. 7,005.15 crores), and consists of both grants and loans.

U. S. Economic Assistance to India June 1951–December 1969: The first figure is in million dollars and the figure in brackets the rupee equivalent at current rate of exchange in crores: 1. USAID Mission's Technical Co-operation Programme: (a) Development Grants (not repayable) 422·5 (316·88); (b) Loans (repayable in rupees or dollars) 154·1 (115·8); 2. USAID Development Loans: (a) repayable in dollars 2,320·2 (1,740·15); (b) repayable in rupees 515·6 (386·70); 3. Public Law 480, Title I (grants and loans repayable in rupees) 4,637·0 (—\*); 4. Public Law 480, Title II (donations, not repayable) 620·5 (465·38); 5. Emergency Flood & Famine Relief grants (not repayable) 5·5 (4·13); 6. U. S. Export-Import Bank Loans (repayable) in dollars) 475·1 (356·32); 7. Wheat Loan of 1951 (repayable in dollars) 189·7 (142·28); Total 9,340·2 (7,005·15).

Categories of Aid: The first figure is in million dollars and the figure in brackets the percentage of total: 1. Grants (not repayable) 1,887·4 (20·2); 2. Loans repayable in dollars 2,985·0 (32·0); 3. Loans repayable in rupees convertible to dollars at the option of the U.S. Government 312·2 (3·3); 4. Local currency repayments (these include loans repayable in rupees or dollars at the option of the Government of India; the Cooley Fund for loans to private enterprise and amounts under PL-480, Title I, agreements reserved for U.S. Government uses 4,155·6 (44·5); Total 9,340·2 (100·0).

### DOLLAR-RUPEE CONVERSIONS

For the sake of uniformity and simplicity all dollar figures included in this Fact Sheet are shown with conversions in Indian currency at the current rate of Rs. 7.60 to the dollar. Prior to June 5, 1966 the rate of exchange was: \$1 = Rs. 4.76.

In regard to loans repayable in dollars, this Fact Sheet lists the equivalent of the entire loan amount in Indian currency at the current rate of exchange. However, in many cases a part of the loan has already been repaid at the old rate.

Loans repayable in rupees fall in two categories. In the first category are loans extended by the former U.S. Development Loan Fund (U.S.D.L.F.), and under the U.S.A.I.D. Mission's Technical Cooperation Programme. The loans provided foreign exchange in dollars, and the loan agreements included clauses providing that repayment would be based on the official rate of exchange at the time repayment was made. Thus devaluation had the effect of changing the outstanding balance in terms of rupees, though not in dollars.

In the second category are loans to the Government of India and to private enterprises from P.L. 480 funds. These loans are intended for purchasing supplies and services available in India. Devaluation does not affect the repayment terms. The borrower's liability is limited to the amount of rupees specified in the loan agreement.

American assistance to India is at present extended through the following three agencies.

## U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (U.S.A.I.D.)

This new Agency created on November 3, 1961 is in charge of activities previously administered by the International Cooperation Administration, which was represented in India by the Technical Cooperation Mission (TCM), the Development Loan Fund, the Public Law 480 Programme in its relation with other countries, and other staff and related functions. A USAID Mission functions in New Delhi. Both grants and loans are extended by the Agency.

Dollar Grants: Technical cooperation: For the Technical Cooperation Programme, USAID extends grants and, at the request of the Government of India, makes available the services of American specialists. Support has been extended to malaria and smallpox eradication, agricultural and technological universities, the development of high-yielding cereals, dairy development, the training of craftsmen, community development and many other nation-building activities.

Amount: Dollar grants since the beginning of the programme total \$422.5 million [Rs. 316.88 crores].

U.S. specialists: Since 1951, 2,825 American specialists have served in India, sharing their skills and experience with their Indian colleagues. The figure includes 205 who are presently in the country. The specialists, whose services are made available at the request of the Government

<sup>\*</sup> It is estimated that PL-480 deposits under existing agreements will total approximately Rs. 2,550 erores, which is considerably less than the rupee equivalent of \$ 4,637.0 million at the current rate of exchange.

of India, belong to many different disciplines such as agricultural education, agronomy, engineering, entomology, family planning, labour relations, malaria eradication, mineral exploration, mining, nutrition, plant breeding, public administration, science education, soil and water management, technological education, and transportation. They work with government departments, educational institutions, and other organizations.

Indian participants: Another important aid activity concerns the provision of advanced training in the United States to Indian officials, teachers, engineers, health specialists and other personnel and facilitating visits by Indian specialists to the United States and other countries to enable them to observe developments in their fields of work. The total number of these Indian participants now stands at 5,406. This includes 331 who are still undergoing training in the United States.

Dollar Loans: Loans extended to India by USAID and its predecessor organizations are of two kinds: (1) those repayable in rupees and (2) those repayable in dollars.

Loans repayable in rupees: Loans extended to India by the Development Loan Fund (now absorbed into USAID) are repayable in rupees. These loans total \$515.6 million [Rs. 386.70 crores].

Loans repayable in dollars: USAID has extended 47 loans repayable in dollars. They total \$2,320.2 million [Rs. 1,740.15 crores].

Terms: Repayment is scheduled over 40 years, with no payments of principal during a grace period of the first 10 years.

Interest: Recent loans bear an interest rate of 2 per cent per annum during the grace period and 3 per cent thereafter.

### U.S. PUBLIC LAW 480

(Food for Peace Programme)

India has been the largest recipient of U.S. agricultural commodities under Title I, P.L. 480. The law has been extended to December 1970.

### P. L. 480 Title I

Under this title the United States sells agricultural commodities to developing nations on concessional terms. India concluded the first PL-480 agreement on August 29, 1956. Since then nine additional agreements and 34 supplemental agreements have been signed—the latest on October 13, 1969.

The value of commodities covered by all PL-480 agreements is \$4,637.0 million (including some ocean transportation costs).

India pays for PL-480 supplies in rupees.

For \$4,324.8 million, the bulk of PL-480 proceeds, the agreements specify that 80.5 per cent should be returned by the United States to the Government of India in grants and loans for economic development (19.4 per cent as grants; 61.1 per cent as loans). A sum equivalent to 6.5 per cent of the total is reserved for loans to private enterprise; and 13.0 per cent is reserved for U.S. Government uses, but a substantial part of this amount, too, is utilized to promote a number of activities beneficial to India. PL-480 grants and loans have helped finance a great deal of development work undertaken by the Government of India.

The remaining \$312.2 million provided in the PL-480 agreements is repayable in rupees convertible to dollars at the option of the U.S. Government. This portion of

the agreements is covered by a 40-year loan with the same provisions relating to interest rates and grace period as USAID loans repayable in dollars.

Under the terms of the PL-480 agreements, the Government of India deposits in the U.S. Government's account with the Reserve Bank of India rupees equivalent to the dollars paid to U.S. suppliers of agricultural commodities. These rupee deposits are made at the rate of exchange prevailing at the time of the dollar disbursements. The major portion of the rupee deposits had been made before the devaluation of the rupee in June 1966. It is estimated that the total PL-480 rupee deposits will amount to approximately Rs. 2,550 erores, which is considerably less than the rupee equivalent of \$4,637.0 million at the current rate of exchange.

### Title II

This title provides for donations of agricultural commodities to help meet famine or other urgent or extraordinary relief requirements and to combat malnutrition, especially in children. In India commodities are distributed through voluntary agencies such as CARE (Cooperative for American Relief Everywhere), Catholic Relief Services, Church World Service and Lutheran World Relief. During the American fiscal year (ending in June 1970) it is planned to distribute nearly 500,000 tons of food valued at \$97.2 million (Rs. 73 crores) under this title. The food includes wheat milk protein foods and vegetable oils.

Ninety-one per cent of the total Indian programme is directed towards raising the level of nutrition of 12·2 million school children and 3·4 million pre-school children. About 1·4 million workers engaged in a number of development projects receive the food supplies as part payment for the work done.

Besides, some 150,000 people in miscellaneous categories, such as institutional feeding, health cases, etc., benefit from the donated supplies.

#### THE EXPORT-IMPORT BANK

The Bank authorizes loans, guarantees and insurance to facilitate the foreign trade of the United States. The Bank has authorized 28 loans to India totalling \$475.1 million (Rs. 356·32 crores). Its loans are in dollars and repayable in dollars. In determining interest rates, the Bank considers its own cost of borrowing money. The current standard interest rate is 5.5 per cent per annum.

### GRANTS FROM U.S. PUBLIC LAW 480 SALE PROCEEDS

Figures in crores of rupees: Agriculture 38.83; Industry and Mining 6.61; Transportation 19.60; Labour 39.46; Health 123.83; Education 100.18; Total grants 328.51.

### Loans to the Indian Government from U.S. P.L. 480 Sale Proceeds

Figures in crores of rupees: Agriculture 282.50; Industry 613.46; Labour 48.02; Health 94.38; Education 73.66; Community Development 64.08; Transportation 24.15; Total 1,300.25.

### **COOLEY FUND**

The Cooley Amendment to U.S. Public Law 480 provides that a portion of the local currency proceeds from the sale of American agricultural commodities shall be made available for lending in the private sector to two categories of borrowers:

- American firms or their subsidiaries operating in the host country (India) or indigenous (Indian) firms having an affiliation with an American firm;
- Indigenous firms of the host country with no American affiliation but which facilitate the disposal of American agricultural products, e.g. local private warehouses storing grain or flour mills processing grain.

Loans amounting to Rs. 969,568,100 have been extended from the Cooley Fund.

## U.S. ASSISTANCE FOR POWER DEVELOPMENT IN INDIA

India has received substantial assistance from the United States for power development. The U.S. has extended foreign exchange assistance totalling \$445.5 million (Rs. 334.13 crores). In addition Rs. 349 crores in Indian currency from the sale proceeds of U.S. agricultural commodities have been extended in loans and grants for power development. Of the 16-million kilowatt total of power-generating capacity now available in India, as

much as one-third is accounted for by the 30 power projects aided by the United States. When all of them reach their targeted output, they will be generating 6.5 million kilowatts.

Under an agreement signed on March 24, 1970 the United States Government has extended a loan of Rs. 60·5 crores to India to finance a part of the expenditure on various development activities.

### U.S.—Uses Rupees

PL-480 agreements between India and the United States provide for a sum of approximately Rs. 300 crores to be reserved for U.S. uses, U.S. owned Rupees are used to meet the expenses of the U.S. Government in India. A considerable share of U.S. owned rupees is being spent on programmes which are of direct benefit to India. These include Educational Exchange, Low-cost Textbooks, Procurement of Indian books and periodicals, American Studies in India and Research. Expenditure from U.S. uses Rupees through December 31, 1969 amounted to Rs. 233·14 crores\*.

U. S. Technicians

U.S. Technicians assigned to India by field of activity as of June 30, 1969 are given in the table below:

			in the state of		100 m			U.S. Fis	cal Year	ending Ju	me 30.
Field of Activity	1	952/60	1961	1962	1963	1964	1965	1966	1967	1968	1969
Agriculture and Natural	Re-		- Sept.	= 150			Add and			United to	P. Alle
sources	- 35.00	460	58	45	50	49	42	48	62	110	107
Industry and Mining		325	36	41	34	26	21	10	13	13	9
Transportation		20	-			100	-				-
Labour		10	2	1	8	9	8	3	6	7	2
Health and Sanitation		130	19	26	21	19	15	11	8	12	11
Education		137	21	30	50	53	62	37	49	47	25
Public Administration		21	1	1	1	7	8	9	9	6	* 1
Community Development.	So-										
cial Welfare and Housing		79	2	-		-	-	-	4	5	7
General and Miscellaneous	• • •	79	20	16	26	27	35	37	32	36	33
TOTAL		1,266	167	159	160	190	190	191	183	236	194

### Indian-American Participant Training Programme

Nominations processed during U.S. fiscal year as of June 30, 1969:-

				Fiscal	Years			
Field of Activity	1951/63	1964	1965	1966	1967	1968	1969	TOTAL
Agriculture and Natural Re-		a little and						100
sources	1,023	115	153	118	90	165	260	1,924
Industry and Mining	1,223	85	19	-	Tarana .	2		1,329
Transportation	91						-	91
Labour	119	18	18	26	18	14	14	227
Hoolth	365	29	36		13	10	16	470
D.J	640	19		10	10	37	28	744
Dublin Administration	57	41	53	40	77	55	51	374
Community D. L	91	41	00	ALL AND AND ADDRESS OF THE PARTY OF THE PART	HINE WENT			
Community Development, So-	**				1			12
cial Welfare and Housing	11	7.0	8	14	Spinish St.		Chia Ton	226
General and Miscellaneous	187	16	0	14		Mary Mary		220
TOTAL since 1951	3,716	323	287	209	209	283	370	5,397
Under Contract Arrangements*	(793)	(69)	(54)	(55)	(42)	(83)	(108)	(1,204)

<sup>\*</sup> Number of participants under contract arrangements has already been included in the above table.

<sup>•</sup> Does not include undisbursed grants to the Government of India for projects such as rural electrification.

Of the total (5,397), 4,923 participants have returned to India and are now working in their particular fields, 170 are in training in the United States and 304 are preparing to depart.

### INDEX NUMBERS

### INDEX NUMBERS OF WHOLESALE PRICES-BY GROUPS

(1961-62 = 100)

Period.			e	All commodities.	Food articles.	Liquor and tobacco.	Fuel, power, light and lubricants.	Industrial raw materials.	Manu- factures.
1962-63	Fr. Sale	No. La		104.9	104.8	121.5	116-8	97-0	103-8
1963-64				113.3	119.8	123.5	119.4	105-4	106-1
1964-65	1		100	122.3	132.3	133.3	121.6	116.4	112.2
1965-66	100	-	7 8	137.5	150.3	133.1	130.7	143.6	123.5
1966-67		a form	O'VAL IN	158.9	187-9	132.6	135.6	165.6	130.3
1967-68	1	( percent	10.55	160.3	194.3	166.7	146.7	141.4	130.3
1968-69	O USUALI		19.3	165-1	186-5	215.5	152.9	171.6	138-8
1969 Nov	ember			168-3	190.6	187.2	155-5	169.5	145.7

Source: Central Statistical Organisation.

### CONSUMER PRICE INDEX NUMBERS FOR URBAN NON-MANUAL EMPLOYEES

(1960 = 100)

Cent	ге			1962-63	1963-64	1964-65	1965–66	1966-67	1967-68	1968-69
All-India	9,000			108	113	124	132	146	159	161
Bombay		(4) E	1	107	114	125	132	142	153	156
Delhi-New	Delhi		1	111	116	125	131	142	154	162
Calcutta				107	112	118	126	139	152	156
Iadras				111	116	125	133	147	154	154
Lyderabad	-Secur	derak	oad	107	111	122	133	147	155	159
Bangalore			1500	111	115	124	133	145	156	160
Lucknow		1.00	Show	105	110	125	132	146	159	156
Ahmedabad	1			105	112	125	131	146	160	162
Taipur				108	115	126	133	150	162	168
Patna			-	106	111	124	139	160	179	174
Srinagar			100	111	120	128	134	143	160	167
Crivandrun	n		Anyola a	110	115	122	131	146	165	168
Cuttack-Bh	ubane	swar		113	122	135	142	154	164	167
Bhopal				111	115	128	133	144	166	166
Chandigarh				108	114	124	129	143	155	164
Shillong		1		107	114	121	123	134	155	163

Source: Central Statistical Organisation.

## PUBLIC FINANCE

### SOURCES OF REVENUE AND EXPENDITURE

THE principal sources of Central revenue are : customs duties, excise duties levied by the Central Government, corporation tax, income tax (excluding taxes on agricultural income), wealth tax, estate and succession duty, the earnings from the mints, terminal taxes on goods or passengers carried by railway, sea or air, taxes on railway fares and freights, taxes (other than stamp duty) on transanctions in stock exchange and future markets, stamp duty on bills of exchange, cheques, bills of lending, letters of credit, insurance policies, transfer of shares, etc.

The railways and the posts and telegraphs contribute to the Central revenues. There are also the profits on the Government industrial undertakings.

About as much as 80 per cent of the revenue is derived from the customs, excise duties, corporation and incometaxes.

Then there is public debt which consists of rupee loans, sterling loans and loans received from other countries. The rupee debt may be divided into three classes, long term loans and money market liabilities, the unfunded debt which includes provident funds, postal deposits, saving certificates, and last the deposits.

The two biggest items of expenditure of the Central Government are outlay on development programmes

(capital account) and defence.

### 1970-71 BUDGET †

The Prime Minister Mrs. Indira Gandhi presented to the Parliament on February 28, 1970, the budget for 1970-71. The fresh tax proposals seek to raise an additional revenue of Rs. 170 crores (including Rs. 45 crores of State's share). With the bigger tax effort, the total public sector plan outlay has also been increased to Rs. 2,637 crores i.e. an increase of about Rs. 400 crores over the

<sup>†</sup> As presented to the Parliament on Feb. 28, 1970.

outlay of Rs. 2,239 crores in 1969-70. The Centre's Plan outlay at Rs. 1,411 crores will be 15 per cent higher than the 1969-70 level.

#### BUDGET AT A GLANCE

	1969-70 Revised	1970-71 Budget
Revenue Receipts@	 2,965	3,167
Capital Receipts	 1,976	1,824
Total Receipts	 4,941	4,991
Revenue Expenditure	 2,976	3,152
Capital Disbursements	 2,255	2,189
Total Expenditure	 5,231	5,341
Overall Deficit	(-)290	(-)350
Effect of Budget Proposals	 -	125
Total Uncovered Gap	 (-)290	(-)225

@ Does not include States' share.

#### Main Features

The budget makes special provision for a number of schemes which combine an element of social welfare with future growth potential. The programme includes schemes for benefitting the weaker and more vulnerable sections of the rural population. An attempt has been made to make the farmer more viable and a variety of schemes have been incorporated to deal with the problems of dry farming and rural works programmes.

## TAX PROPOSALS IN BRIEF Direct Taxation

(1) The marginal rate of income-tax is increased to 93.5 per cent in the slab over Rs. 2 lakhs as against 82.5 per cent in the slab over  $2\frac{1}{2}$  lakhs at present.

Other direct tax proposals relate to a raising of the wealth tax rate. At present, these rates vary from 0.5 per cent to 3 per cent. They will now vary from 1 per cent at the lowest slab to 5 per cent at the highest slab. Provision has been made for a uniform personal exemption of Rs. 5,000 and a unified deduction of Rs. 3,000 for income from units, Indian companies and other specified savings. No change is proposed in the corporate tax system, except for non-allowance of entertainment expenditure for tax purposes. The rates of gift tax have been revised to bring them more in line with the rates of estate duty and the present exemption limit of Rs. 10,000 in respect of gifts made during a year is being lowered to Rs. 5,000.

The total yield from direct tax measures in a full year would be Rs. 36 crores. But in 1970-71, the net addition to the Centre's resources from these changes would be Rs. 5 crores only and the States will gain to the extent of Rs. 10 crores in 1970-71.

#### **Indirect Taxation**

A major part of the additional tax revenue is to be obtained through indirect taxes and here the Prime Minister has cast her net wide. Total tax revenue from indirect taxes is placed at Rs. 155 crores i.e. Rs. 135 crores from excise and Rs. 20 crores from customs. After transferring the States' share, Rs. 120 crores will accrue to the Central Government by way of indirect tax measures.

Some of the Important Indirect Tax proposals:

#### Customs:

(a) The duty on jute canvas, jute webbings, jute tarpaulin cloth and manufactures thereof is being reduced from Rs. 500 to Rs. 200 per metric tonne.

(b) Export duty on tea is abolished altogther.

(c) The import duty on machinery has been raised from 27½ per cent to 35 per cent ad valorem. The import duty on motor vehicles parts, pharmaceutical chemicals and non-electrical instruments, apparatus and appliances is increased by 10 per cent ad valorem. The duty on certain plastic materials and nichrome and other electrical resistance wires is also raised from 60 per cent to 100 per cent ad valorem. The duty on whisky, brandy, gin and wines is also increased.

The net gain in customs revenue after adjusting export duty loss will be Rs. 20 crores.

#### Excise:

A 10 per cent ad valorem excise duty is imposed on a number of new items including office machines, metal containers, sparking plugs, stainless steel blades, slotted angles, iron safes and safe deposit vaults. The levy on office machines covers items like typewriters, calculating machines, cash registers, cheque-writing machines, computers and intercom devices. The duty on metal containers is confined to those intended for the packaging of goods for sale, including casks, drums, cans, gas cylinders and rigid containers. The additional revenue from these new duties will amount to Rs. 10·40 crores.

Among chemical products, duty at the rate of 10 per cent ad valorem has been levied on calcium carbide, bleaching powder and sodium hydrosulphite and the present duty of 5 per cent on soda ash and caustic soda is raised to 10 per cent. An excise duty of Rs. 300 per metric tonne is also levied on synthetic rubber. These changes will bring in an additional revenue of Rs. 5•30 crores.

Levy is also imposed on products such as vegetable juices, synthetic syrups and sherbats, de-hydrated peas, malted foods, instant coffee, instant tea, jelly crystals, custard and ice-cream powders, biscuits, cocoapowder, drinking chocolate, pasteurized butter, processed cheese, branded aerated waters, glucose and dextrose. These proposals will yield an additional revenue of Rs. 8-68 crores.

The duty on sanitary ware and glazed titles of porcelain is raised from 15 per cent and 10 per cent respectively to 25 per cent. The duty on room air-conditioners is raised from 40 per cent to  $53\frac{1}{3}$  per cent and a similar increase is made in respect of larger refrigerators with a capacity exceeding 165 litres. The duty on parts of refrigerators, air-conditioning plants and machinery is raised from  $53\frac{1}{3}$  per cent to  $66\frac{2}{3}$  per cent. The exemption in favour of television sets is withdrawn and a duty of 20 per cent ad valorem is imposed. The gain in revenue from these measures will be Rs. 2·24 crores.

In the case of aluminium the existing specific duties are being replaced by ad valorem duties which will bring an additional revenue of Rs. 4-70 crores. The rationalisation of the duty on rigid plastic boards will yield an additional revenue of Rs. 96 lakhs.

The basic excise duty on polyester fibre of 2 deniers or less is increased from Rs. 21 to Rs. 25 per kilogram with a corresponding increase in special excise duty. The present nominal duty of 7.8 paise per sq. metre on artificial silk fabrics which include rayon, nylon, terylene, terry and terrywool fabrics is replaced by ad valorem duty ranging from 3 per cent to 10 per cent. This will yield a revenue of Rs. 13.78 crores.

The duty on motor spirit is increased by 10 paise per litre, on superior kerosene and furnace oil by 2 paise each; the total additional yield by these measures will be Rs. 39·56 crores.

The duty on cigarettes is enhanced from 3 per cent to 22 per cent ad valorem, which will bring an additional revenue of Rs. 13.50 crores.

There will be no increase in the duty on loose tea produced in zone one and only a marginal increase of 10 paise per kilo on teas produced in zone two. For other zones, the increase varies from 45 paise to one rupee per kilo. After allowing for the rebate on export, there will be an additional revenue of Rs. 7.87 crores which will be offset by the loss in revenue from the abolition of the export duty on tea.

The duty on free market sugar is increased from the present level of 23 per cent to  $37\frac{1}{2}$  per cent ad valorem. In the case of levy sugar which accounts for 70 per cent of the total, there would only be a marginal rounding off of the present rate from 23 per cent to 25 per cent. The tariff rate of duty on khandsari sugar is also raised from  $12\frac{1}{2}$  per cent to  $17\frac{1}{2}$  per cent. The net additional revenue from sugar is estimated at about Rs.  $28 \cdot 50$  crores.

The statutory rate of duty on tin plates has been raised from Rs. 375 to Rs. 400 per metric tonne. Some relief is also given in the case of straw boards and mill boards by revising the excise duty exemption at certain levels of production. These measures of relief in excise duty will involve a loss in revenue of Rs. 43 lakhs.

#### Posts and Telegraphs:

Charges for telephone calls beyond the first 750 calls in a quarter have been proposed to be increased to 20 paise per call. This change will yield Rs. 8.22 crores in a full year.

#### REVENUE RECEIPTS

(In crores of Rupees)

			(In crores of Rupees)		
	Heads of Revenue		1969-70	1970-71	
	reads of Revenue		Revised	Budget	
1.	Tax Revenue	N. W.			
	Customs Duties		415.00	445.00	
	Union Excise Duties	CONTRACTOR OF THE PARTY OF THE	1,525.76	1,679.34	
	Corporation Tax		320.00	342.00	
	Taxes on Income		400.00	423.00	
	Estate Duty		7.50	7.50	
	Wealth Tax		14.00	18.00	
	Other taxes and duties		49.78	52.13	
	Total		2,732.04	2,966 · 97	
2.	Non-tax Revenue		Tal Sales		
	Debt Services		573 • 46	611-27	
	Currency and Mint		94.84	98.07	
	Other non-tax Revenue*		186 • 81	190.41	
	Total		855-11	899.75	
3.	Total Gross Revenue		3,587.15	3,866 • 72	
4.	Less - States' Shares		The second		
	Union Excise Duties		321 - 51	252 45	
	Taxes on Income		293-18	353·45 339·17	
	Estate Duty		6.98	7.17	
	STATE OF THE STATE	100	00		
	Total *		621 • 67	699 • 79	
5.	Net Centre's Revenue		2,965.48	3,166 • 93	

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part I, page 6.

Includes PL 480 grants and food aid amounting to Rs. 33 erores in R.E. 1969-70 and Rs. 29 crores in BE 1970-71.

## DISBURSEMENTS

(In crores of rupees)

1 23			rapocs)
	Heads of Expenditure	1969-70 Revised	1970-71 Budget
1.	Collection of Taxes and	11 12 12	
	Duties	43.93	48.55
	Debt Services	568.56	597.48
	Administrative Services	177.32	189.70
	Social and Developmental		
	Services	266 - 53	319.85
	Multi-purpose River Sche-		320 00
	mes, etc.	5.89	14.56
	Public Works, etc.	38.68	42.63
		00.00	42.00
	Transport and Communications	10 05	00.00
	Chamman - 1 35: 1	18·35 26·86	20.80
	747	242.37	$26 \cdot 00$ $221 \cdot 26$
		244.31	221.20
	Contributions and Miscel-	telleriter, the	and the second
	laneous Adjustments*	10.70	10.77
	Extraordinary Items	5.85	6.64
	Total—Civil Expenditure	1,405.04	1,498-24
2.	Defence Expenditure (Net)	979.32	1,017.84
3.	Grants in Aid to States and Union Territories with	Charles and the	
	Legislature	592.06	636 • 10
	Total†	2,976 • 42	3,152 · 18

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part I, page 7.

\* Excludes grants-in-aid to States & Union Territories with legislature shown separately.

† Includes a plan provision of Rs. 458.85 crores in Budget Estimates 1970-71 as against Rs. 390.40 crores in the Revised Estimates for 1969-70.

## CAPITAL RECEIPTS AND DISBURSEMENTS

Capital account shows the capital requirements of Government and how these are financed. Among the principal sources for meeting these requirements first there is the revenue surplus. Secondly, regular loans are floated in the market. Thirdly, funds accrue to Government through small savings, annuity deposits and State Provident Funds, and through miscellaneous deposits and advances. Lastly, there are external borrowings. To the extent receipts from these sources fall short of the capital requirements the deficit is made good by the issue of treasury bills and drawal from cash balance.

The statement below gives a summary of the capital transactions:

#### Capital Receipts

(In crores of rupees)

		1969–70 Revised	1970-71 Budget
1.	Market Loan	The second	
	Gross Borrowings	 535-31*	455.00
	$Less \longrightarrow \text{Repayments}$	394.00	293.30
	Net Borrowing	141.31	161 • 70

\* Excludes Rs. 75 crores of ad hoc treasury bills converted into dated securities.

#### Capital Receipts-(Contd.)

(In crores of rupees)

			1969-70 Revised	1970-71 Budget
$\overline{2}$ .	External Aid (Other th	an		
	Gross Borrowings		580.00	600.00
	Less — Repayments		179-54	200-25
	Net Borrowing		400-46	399-75
3.	PL-480 Aid	-dis	***************************************	
	Dollar Credit		74.10	84.00
	Rupee Loans		60.00	35.00
	PL-480 Deposits (net)		71.83	13.27
	Total	T	205-93	132-27
4.	Advances	nd -	880.00	825.00
5.	Other Items:		10- 0-	140.90
	(1) Small Savings		125-25	140.20
	(2) Other Receipts		222.56	164.79
	Total Capital Receipts		1,975.51	1,823 · 71

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part I, page 8.

#### Capital Disbursements

(In crores of runees)

	(In crores of rupees)		
	1969-70 Revised	1970-71 Budget	
A. Civil Expenditure			
1. Social and Developmen-			
tal Services	347.76	348 · 87	
2. Multi - purpose River			
Schemes etc	60.13	71.25	
3. Public Works etc	58.94	92.64	
4. Transport & Communi-			
eations	24.09	28.71	
5. Currency & Mint	8.13	12.03	
6. Miscellaneous	-12.81	$-12 \cdot 15$	
Total Civil Expenditure	486.24	524.35	
B. Posts & Telegraphs	35.96	35.00	
C. Railway Capital Outlay	124.86	150.00	
D. Defence Capital Outlay	125.42	133 · 67	
E. Loans & Advances			
1. States & Union Terri-			
tories	1,057 • 97	878 25	
2. Others	424.23	467-19	
Total Loans & Advances	1,482 • 20	1,345.44	
Total Capital Disbursements	2,254.68	2,188 · 46	
Deficit on Capital Account	279-17	364.75	
Overall Deficit	290.11	350.00	
		1070 71 Centre	

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part I, page 9.

#### **DEBT POSITION**

The mounting debt burden of the Government of India shows more than a seven-fold rise since the inception of planning. As seen from the table below, public debt obligations of the Union Government have increased from Rs. 2,565 crores in 1950–51 to Rs. 6,544 crores in 1960–61 and are likely to be Rs. 17,845 crores and Rs. 18,855 crores at the end of 1969–70 and 1970–71 respectively.

(Rs. Crores				
	1950-51	1960-61	1969–70 Revised	1970-71 Budget
I. Internal debt	2,022	3,975	7,237	7,763
II. External debt	32	761	6,141	6,659
Total public debt	2,054	4,739	13,377	14,423
III. Other liabilities	511	1,805	4,468	4,432
Total liabilities	2,565	6,544	17,845	18,855

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part II, pages 73 and 74.

## TRANSFER OF RESOURCES TO THE STATES

The following statement shows the resources transferred from the Centre to the States.

				(Rs. Crores)
			1969-70 Revised	1970-71 Budget
_ 1.	Share of taxes	s and duties	622	700
2.	Non-plan assis	tance		
	(a) Grants-in-a	id	249	262
	(b) Loans and	advances	586	392
3.	Assistance for schemes	State Plan		
	(a) Grants		194	203
	(b) Loans		421	432
		Total	2,072	1,989

Source: Explanatory Memorandum on the 1970-71 Central Budget, Part I, page 24.

## SHIPPING COMPANIES AND AIRWAYS

#### SHIPPING COMPANIES

#### AMERICAN EXPORT ISBRANDTSEN LINES INC., NEW YORK

Agents:—Lionel Edwards Ltd., 41, Nicol Road, B. Estate, Bombay; Pierce Leslie India Ltd., Beach Road, Alleppey; P. Box 565, Cochin; Bunder Road, Mangalore; Kozhikode; Quilon; J. M. Baxi & Co., 2/21, North Beach Road, Madras; Lionel Edwards Ltd., 21, Old Court House Street, Calcutta; Lionel Edwards Ltd., New Delhi; India Steamship Co. Ltd., Visakhapatnam; American Export Isbrandtsen Lines Inc., 21, Old Court House Street, Calcutta.

India Service fortnightly sailings between New York and other U.S. North Atlantic Ports via Egypt, Lebanon and the Suez Canal and Ports in the Gulf of Suez, Red Sea, Gulf of Aden, Pakistan, India, Ceylon and Burma. Calls at other ports may be made.

#### AMERICAN PRESIDENT LINES LIMITED

Fortnightly sailings from Karachi, Bombay, Mangalore and Cochin, to United States.

General Agents :-

BOMBAY—Forbes Forbes Campbell & Co., Ltd., Home Street, Fort; Calcutta—McLeod & Co. Ltd., 3, Netaji Subhas Road; Madras—South Indian Export Co. Ltd., Post Box No. 37, McLean Street; Cochin—Binny Ltd., P.O. Box No. 6; Mangalore—Canara Shipping Corporation, P.O. Box 23.

#### APEEJAY LINES

Owners: Surrendra Overseas Ltd., 15, Brabourne Road, Calcutta.

Branches:

Bombay: Steelcrete House, 3 Dinshaw Wachha Road, Bombay 20.

New Delhi: Jeevan Vihar, Parliament Street.

Madras: 312, Thambu Chetty Street, Madras 1.

#### BROCKLEBANKS' CUNARD SERVICES

Agents:

Turner Morrison & Co., Ltd., 6, Lyons Range, Calcutta 1; Ripley & Co., Ltd., P.O. Box No. 26, Visakhapatnam.

Service to Wilmington (Del), Norfolk, Newport News, Wilmington (N.C), Charleston, Savannah, Mobile, Gulfport, New Orleans, Galveston, Houston and Brownsville.

#### CHOWGULE STEAMSHIPS LTD.

Registered Office : Mormugao Harbour (Goa).

Bombay Office: 'India House', opp. G.P.O., Bombay-1.

Number of Vessels: 5. Total DWT: 80,333.

3 Passenger-cum-cargo ships, 2 Bulk Carriers.

Passenger-cum-Cargo Service: From Bombay to Panaji (Goa).

Cargo Service: On Indian coast and overseas.

## COLLIS LINE PRIVATE LTD.

Willingdon Islands, Cochin-3.

Branches: Bombay and Calicut.

## DAMODAR BULK CARRIERS LTD.

4, Ballard Road, Bombay 1.

## DEMPO STEAMSHIPS LIMITED

Regd. Office: Campal, Panaji, Goa.

Admn. Office: Moti Mahal, J. Tata Road, Bombay 20.

## ELLERMAN & BUCKNALL STEAMSHIP CO. LTD.

General Agents :-

BOMBAY—Forbes Forbes Campbell & Co., Ltd., Home Street, Fort; Calcutta—Gladstone Lyall & Co., Ltd., 4, Fairlie Place; Madras—Shaw Wallace & Co. Limited, P. Box No. 14; Cochin—Aspinwall & Co. Private Ltd., P.O. Box No. 60.

#### ELLERMAN'S CITY AND HALL LINES

From Glasgow and Liverpool to Calcutta, Bombay, Kathiawar Ports, Karachi and Malabar Coast Ports and back to London, Liverpool and Glasgow.

Agents:

Bombay—Killick, Nixon & Co. Ltd.; Calcutta—Gladstone Lyall & Co., Ltd.; Madras—Best & Co. Private Ltd.; Mormugao—Killick, Nixon & Co., Ltd.

# HARRISON LINE BROCKLEBANK LINE L. SMITH CO'S INTERNATIONALE SLEEPDIENT, ROTTERDAM HINODE KISEN CO. LTD., TOKYO

Agents: Killick, Nixon & Co. Ltd., Home Street, Fort, Bombay.

#### **EVERETT ORIENT LINE**

Calcutta Agents: Everett Steamship Corporation, G.P.O. Box 25, Calcutta.

#### JOHNSON LINE

Bombay Agents: Everett Steamship Corporation, Post Box 523, Bombay.

#### AMERICAN MAIL LINE

Bombay & Calcutta Agents: Everett Steamship Corporation.

#### WATERMAN STEAMSHIP CORPORATION

Bombay Agents: Everett Steamship Corporation, P.O. Box 523, Bombay 1; Calcutta Agents: Everett Steamship Corporation, G.P.O. Box 25, Calcutta 1.

Service: U.S.A. East Coast Ports to India.

#### THE GREAT EASTERN SHIPPING CO., LTD.

Registered Office: —Mercantile Bank Building, 60 Mahatma Gandhi Road, Bombay 1; Branch Office: —5, Clive Row, Calcutta 1; Delhi Office: 13, Rajdoot Marg, New Delhi.

Operations: Owns and operates a fleet of 15 ships including two Bulk Carriers and a Tanker, Operates liner services on the Indian Coast and from West Coast U.S.A., West Coast Canada to India. Also Tramp shipping all over the world.

#### HANSA LINE

Agents:

Calcutta: Hansa Line, Ilaco House, Ground Floor, 1-3, Brabourne Road, P.O. Box 2698; Bombay: Shaw Wallace & Co., Ltd., 3, Wittet Road, P.B. 203, Bombay 1; Madras: 8-9, Thambu Chetty Street, P.O. Box 14, Madras 1. Regular sailings from North Continental Ports to India, Pakistan, Ceylon and Burma and vice-versa.

## HARSHA TANKERS & SHIPPING AGENCY

33A, New Marine Lines, Bombay 20.

Steamship Agents & Operators of Tankers & Bulk Carriers.

Represented at Kandla, Goa, Cochin, Tuticorin, Madras, Visakhapatnam & Calcutta.

#### INDIA STEAMSHIP COMPANY, LTD.

Head Office: 21, Old Court House Street, Calcutta 1; Branch Offices: Contractor Building, 41, Nicol Road, Bombay 1; Godavari Street, Visakhapatnam 1; 'Suryabagh', Commercial Road, Kakinada.

Agents: (a) The Bombay Burmah Trading Corporation Ltd., Willingdon Island, Cochin 3; (b) Ananthakrishna & Co., 16, First Line Beach, Madras 1; (c) Bombay Co. Pvt. Ltd., Beach Road, Tuticorin; Saurashtra Agents: J. M. Baxi & Co.

Service to: (a) From Bombay to the U.K./Continent; (b) From Calcutta: (1) Calcutta U.K./Continent; (2) Calcutta/South America; (c) Indo-Soviet Service, i.e., from Calcutta and Bombay to Black Sea ports; (d) Indo-Polish Service, from Calcutta and Bombay to Polish ports and vice versa; (e) India-GDR Service, from Calcutta and Bombay to GDR and vice versa; (f) Indo-UAR Service, from Calcutta and Bombay to UAR and vice versa; (g) India-Adriatic Service, from Calcutta and Bombay to Adriatic ports (Venice, Trieste, Rijeka etc.) and vice versa; (h) Adriatic/West Asian Gulf Service, from Adriatic ports to West Asian Gulf ports.

#### JAVA BENGAL LINE

Branch Office of N. V. Stoomvaart Maatschappij "Nederland".

5 & 7, Netaji Subhas Road, Calcutta 1. P.O. Box 71.

In all ports on East and West Coast except Calcutta: Patel Volkart Ltd. represent their Lines.

The following lines are represented by them in India, with vessels calling at Indian ports:

Nedlloyd Line: Sailings between India, East Pakistan, Philippines and USA/Canadian West Coast Ports.

Nedlloyd Latin America & Caribbean Service: Sailings from Calcutta and East Pakistan Ports to West Coast of South America and Caribbean Ports via Straits, Hong Kong and Japan.

Holland-Bengal-Burma Line: Sailings between Indian East Coast ports to North Continental ports.

#### JAYANTI SHIPPING COMPANY LTD.

(See under Government Industrial Undertakings)

#### LLOYD TRIESTINO

Neville House, Ballard Estate, Bombay 1.

De Luxe Passenger cum Cargo Service from Bombay to Venice/Trieste via African and Spanish Ports. Cargo Service from East and West Coasts of India to Italian and Mediterranean Ports.

## MACKINNON MACKENZIE & CO. PRIVATE LTD.

4, Shoorji Vallabhdas Marg, Ballard Estate, P.O. Box 122, Bombay 1.

Agents for: British India Steam Navigation Co. Ltd., P & O Lines Ltd., States Marine Lines, Isthmian Lines Inc., Bank Line Ltd., Union Steamship Co. of New Zealand Ltd., Hain-Nourse Ltd., Damodar Bulk Carriers Ltd., South India Shipping Corporation Ltd.

#### NEW INDIA MARITIME AGENCIES P. LTD.

Commerce House, Currimbhoy Road, Ballard Estate, Bombay 1.

Representing Islandship Lines — Regular Service to Straits, Thailand, Indonesia and Formosa Ports.

#### BRITISH INDIA STEAM NAVIGATION CO. LTD.

Agents: Mackinnon Mackenzie & Co. P. Ltd., Bombay; 16, Strand Road, Calcutta; Binny Ltd., 7, Armenian St., Madras 1.

#### ISTHMIAN LINES, INC.

Agents: Mackinnon Mackenzie & Co. P. Ltd., Bombay; The Angus Co Ltd., 3, Clive Row, Calcutta; A. V. Thomas & Co. Ltd., Willingdon Island, Cochin; Binny Ltd., Madras.

Agents at other trading ports. Main trading ports: Bombay, Bhavnagar, Kandla, Calcutta, Cochin, Madras, Mormugao, Navlakhi, Tuticorin, Visakhapatnam.

#### MALABAR STEAMSHIP COMPANY LTD.

Darabsha House, 10, Shoorji Vallabhdas Marg, Bombay 1.

Branches: Calicut, Cochin, Alleppey and Calcutta.

From Bombay to Calieut-Cochin-Tuticorin and Colombo as per demand. From Bombay to Saurashtra Ports. From Calcutta to Rangoon. From Calcutta to Madras-Tuticorin-Cochin and also touch Colombo according to demand. From Indian Ports to Overseas.

#### MAERSK LINE

Agents: Patel-Volkart Ltd., Shipping Dept., 19, Graham Road, Ballard Estate, Bombay 1.

Japan/India/Pakistan/Persian Gulf and vice versa.

#### HOEGH LINES

From West Coast of India/Ceylon to U.S. Gulf and Atlantic ports.

## NEDLLOYD & HOEGH LINES

From India to Manila and West Coast of U.S.A. and Canada, and vice versa.

#### **MESSAGERIES MARITIMES**

19, Graham Road, Ballard Estate, Bombay 1.

#### Agents:

Bombay, Mormugao, Tuticorin—Patel-Volkart Limited; Cochin & Malabar Ports—C. J. Revel; Madras & Coromandel Ports—C. J. Revel; Calcutta—Cruickshank & Co., Limited.

Cargo Service from East and West Coast India to Mediterranean and North Continental Ports and vice versa.

## UNITED NETHERLANDS NAVIGATION CO.

Agents: Patel Volkart Limited, Bombay 1.

Sailings from India to North Continental and Mediterranean ports and vice versa.

#### MITSUI O. S. K. LINE

Agents:

Bombay: Orient Ship Agency Private Ltd., Orient House, Mangalore St., B. Estate, Bombay 1; Calcutta: F. W. Heilgers & Company (P) Ltd., No. 1, India Exchange Place, Calcutta 1; Cochin: Sorabji & Co. Pvt. Ltd., Ahura House, Jew Town. Mattancherry, Cochin 2; MADRAS, KAKINADA AND VISAKHAPATNAM: International Clearing and Shipping Agency, 312/13, Linghi Chetty St., Madras; Tuticorin: A. & F. Harvey Ltd., Tuticorin.

JAPAN/INDIA/PAKISTAN LINE; JAPAN/BENGAL LINE; WESTBOUND ROUND-THE-WORLD SERVICE.

#### THE MOGUL LINE LTD.

(See under Government Industrial Undertakings)

## NEW INDIA MARITIME AGENCIES PVT. LTD.

119/120, Armenian Street, Madras 1.

Steamer Agents and ships operators.

Branches: Bombay—Kandla—Cochin—Calicut—Alleppey—Tuticorin—Kakinada—Visakhapatnam—Calcutta— New Delhi.

## N. Y. K. LINE

Agents: Indian Maritime Enterprises Pvt. Ltd., New Kamani Chambers, 6th Floor, Mangalore Street, Ballard Estate, Bombay 1; South India Corporation (Agencies) Pvt. Ltd., South India House, 99 Armenian Street, Madras-1.

(i) Japan/India/Pakistan/Persian Gulf. (ii) Japan/Calcutta.

## ORIENT MID-EAST LINES, NEW YORK

Agents: Indian Maritime Enterprises Pvt. Ltd., New Kamani Chambers, 6th Floor, Mangalore Street, Ballard Estate, Bombay-1; International Clearing & Shipping Agency, 312/313, Linghi Chetty Street, Madras-1.

U.S.A. & Canada-India.

#### PAREKH SHIPPING CORPORATION

26, Bhagubhai Chambers, 363, Narsi Natha Street, Bombay-9. (Mediterranean Maritime Company Agents in India).

#### PENT OCEAN STEAMSHIPS P. LTD.

Fort House, 221, Dr. D. Naoroji Road, Bombay 1.

Company incorporated in 1965; has at present a total D. W. T. of 42,826 consisting of four ships and are plying between: Indian Coast; India/Burma; India/Ceylon; India/Far East. The Company also charters Foreign Flag vessels to bring food grains from U.S.A. to India.

## POLISH OCEAN LINES

India Line—India/Pakistan/Burma/Ceylon.

Bombay Branch: The Polish Ocean Lines, Bharat Insurance Bldg., 15/A, Horniman Circle, Fort, Bombay 1.

Agents: Khemka & Co. (Agencies) Private Ltd., 202/A, Veer Nariman Road, Churchgate Reclamation, Bombay 1; International Clearing and Shipping Agency, 312/313, Linghi Chetty St., Madras 1; Khemka & Co. (Agencies) Pvt. Ltd., 31/32, India Exchange Place Extn., Calcutta 1.

## RATNAKAR SHIPPING COMPANY LTD.

16, Strand Road, Calcutta 1.

Agents in India: (West Coast & East Coast) Shaw Wallace & Co. Ltd., Wallace House, 3, Wittet Road, Bombay 1; 8/9, Thambu Chetty St., Madras 1.

Agents Overseas: Harris & Dixon Ltd., 81, Gracechurch Street, London, E.C. 3.

Services: Overseas tramp cargo service and Indian Coastal cargo service.

## ROYAL INTEROCEAN LINES

Agents:

Bombay: Forbes Forbes Campbell & Co., Ltd., Home Street, Fort; Alleppey: Darragh, Small & Co., Ltd., P.O. Box No. 50; Cochin: Darragh, Small & Co., (India) Ltd., Willingdon Island, P.O. Box No. 22.

Monthly sailings from Bombay, Alleppey and Cochin via Colombo, Malaysia and Indonesia to Australia.

## SCINDIA STEAM NAVIGATION CO., LTD.

Scindia House, Narottam Morarjee Marg, Ballard Estate, Bombay.

Coastal Services: Cargo Services: India, Pakistan, Burma, Ceylon.

Overseas Services: Regular services: India-Pakistan/U.K. Continent; India/Levant Ports/U.S.S.R. (Black Sea Ports); India/U.S.A.; India/Great Lakes/Eastern Canada/Malaysian Ports; India/U.S. Pacific Ports/Canada via Far East Ports; India/U.A.R.; India/West Asian Gulf Ports.

## THE SHIPPING CORPORATION OF INDIA LTD.

(See under Government Industrial Undertakings)

#### SOUTH EAST ASIA SHIPPING COMPANY PVT. LTD. Himalaya House, Dr. Dadabhai Naoroji Road, Bombay I.

Agents at all Principal ports in India and in West Asia (Gulf) Ports at Damam, Dubai, Abu Dhabi, Bahrain, Kuwait, Khorramshahr and Basra, also at Colombo and Rangoon, Akyab and Bassein in Burma.

Steamers ply between India/West Asia Gulf Ports, India/Ceylon, India/Burma. The main ports of call in India are: Bombay, Mormugao, Cochin, Tuticorin, Madras, Vizagapatnam, and Calcutta, also Okha, Sikka, Bedi, Kandla, Veraval, Porbunder and Bhaynagar.

#### SOUTH INDIA SHIPPING CORPORATION LTD.

'Dhun Building', 175/1, Mount Road, Madras-2.

Operates 5 bulk carriers (two of 43,204 DWT and three of 43,124 DWT), in worldwide tramp shipping trade.

## UNITED LINER AGENCIES OF INDIA (PRIVATE)

Post Box No. 1281, Wavell House, Ballard Estate, Bombay 1.

Agents for the East Asiatic Co., Ltd., Copenhagen, Wilhelmsen Lines, Oslo & the Swedish East Asia Co., Ltd., Gothenburg. Maintains Joint Service providing weekly sailings from Scandinavia and the Continent bringing cargo destined for ports in India, Pakistan, Burma and Ceylon.

#### YUGOSLAV LINE ("JUGOLINIJA")

Agents:

Bombay: The Oceanic Shipping Agency Pvt. Ltd., Darabshaw House, Ballard Road, Bombay-1; Calcutta 13, Brabourne Road, Calcutta 1; Madras: Southern Shipping Corporation Pvt. Ltd., 8, Second Line Beach, Madras 1.

## THE MERCHANT STEAM NAVIGATION CO. (PRIVATE) LTD. & THE AFRICANA CO. P. LTD.

289-93, Narsi Natha Street, Bombay 9.

Has branches at Calicut, Alleppey, Tellicherry & Badagara.

From Bombay to Calicut, Cochin and Tuticorin and at the same time touching other minor ports also and vice versa; From Bombay to Saurashtra Ports and vice versa; Also touch Colombo according to demand.

#### P. & O. LINES

Agents:

Mackinnon Mackenzie & Co., Private Ltd., 4, Shoorji Vallabhdas Marg, Ballard Estate, P.O. Box 122, Bombay; 16, Strand Road, Calcutta; Binny Limited, 7, Armenian Street, Madras 1.

Service: U.K., Gibraltar, Las Palmas, Dakar, Capetown, Durban, Bombay, Colombo, Straits and Japan, Freemantle, Adelaide, Melbourne, Sydney and Brisbane, Le Havre, Lisbon, Trinidad, Panama, Honolulu, Auckland, Vancouver, San Francisco and Los Angeles to Karachi, Bombay, Madras and Calcutta (joint cargo service with B.I.S.N. Co. Ltd.).

#### WAVERLEY UNITED SHIPPING AGENCIES

51, "Advent," 12A, Foreshore Road, Backbay Reclamation, Bombay 20.

Agents for Constellation Line, New York.

## AIRWAY COMPANIES

#### AEROFLOT

Representation of Aeroflot Soviet in India: C-16, Connaught Place, New Delhi 1.

MOSCOW / DELHI/SINGAPORE (Every Sunday & Wednesday). SINGAPORE/DELHI/MOSCOW (Every Tuesday and Friday). MOSCOW/DELHI/MOSCOW (Every Saturday).

## AIR-CEYLON LTD.

Connemara Annexe, Mount Road, Madras 2.

Air Ceylon operates services on the following routes:— COLOMBO-KARACHI-ROME-LONDON and vice versa (Weekly).

COLOMBO-KUALA LUMPUR-SINGAPORE and vice

COLOMBO-MADRAS and vice versa (Wednesdays, Thursdays & Fridays).

COLOMBO-TRICHY and vice versa (Mondays, Wednesdays and Fridays).

COLOMBO-JAFFNA-TRICHY and vice versa (Mondays, Wednesdays and Fridays).

COLOMBO-BOMBAY-KARACHI (Mondays and Saturdays)

BOMBAY-COLOMBO (Tuesdays and Sundays). COLOMBO-BANGKOK (Wednesdays and Sundays).

#### AIR-FRANCE

Regional Head Office: 17, Parliament Street, New Delhi; Bombay: Stadium House, Vir Nariman Road, Churchgate; Calcutta: 41, Chowringhee Road; New Delhi: Scindia House, Janpath; Madras: Spencer's Buildings, Mount Road; Ahmedabad: A. D. Amin & Co., Dt. Local Board Bldg., Gandhi Road; Ernakulam: C. J. Revel, 27/535 M. G. Road; Poona: Ramesh Travel Service, 96/97 Mahatma Gandhi Road; Kanpur: Swan Travels, The Mall.

ROME — ATHENS — TEL AVIV — BEYROUTH —
TEHERAN — KARACHI — BOMBAY — NEW DELHI
— BANGKOK — PNOM PENH — SAIGON — HONGKONG — MANILA — TOKYO.

#### AIR-INDIA

Air-India Building, 20th floor, Nariman Point, Bombay-1BR.

Commercial Headquarters: Bank of India Building, 4th floor, Mahatma Gandhi Road, Bombay-1.

Other Departments at Santa Cruz Airport, Bombay-29. Information/Booking: New India Assurance Building, Mahatma Gandhi Road, Fort, Bombay-1.

Unduplicated route kilometres as on March 31, 1968: 57,603.

Aircraft: In service as on March 31, 1969: 5 Boeing 707-437; 3 Boeing 707-337Bs; 2 Boeing 707-337Cs. On

order on March 31, 1969: 2 Boeing 747 Jumbo Jets; 2 Anglo-French Concordes; 2 American SSTs.

#### ALITALIA

Italian Airlines, Churchgate, Bombay 20.

Douglas Super DC-8 JET-FIRST/ECONOMY CLASS. SERVICES OPERATED EIGHT TIMES WEEKLY VIA BOMBAY.

TOKYO — HONG KONG — BANGKOK — BOMBAY — TEHERAN — ROME; ROME — TEHERAN — BOMBAY — BANGKOK — MANILA — TOKYO; TOKYO — HONG KONG — BANGKOK — BOMBAY — ATHENS — ROME and back.

SYDNEY — SINGAPORE — BOMBAY — ROME and return; SYDNEY — DJAKARTA — BANGKOK — BOMBAY — ATHENS — ROME; ROME — ATHENS — BOMBAY — BANGKOK — HONG KONG — MANILA — SYDNEY.

## ARIANA AFGHAN AIRLINES

Offices:—(1) F-15, Connaught Place—New Delhi.
(2) Raja Travel and General Agencies, Ritz Hotel—Amritsar.

New Delhi — Kabul; Amritsar — Kabul. Aircraft: DC-6Bs—Boeing-727.

## BRITISH OVERSEAS AIRWAYS CORPORATION

Office: 202-B, Vir Nariman Road, Churchgate, Bombay 20; Hamilton Bldg., 1A, Connaught Place, New Delhi I; 41, Chowringhee Road, Calcutta 16; Fagun Mansions, Commander-in-Chief Road, Madras 2; C/o Air India, Mahatma Gandhi Road, Ernakulam.

## CESKOSLOVENSKE AEROLINE

(Czechoslovak Airlines)

Bombay Office: 3-B, Stadium House, Vir Nariman Road, Bombay 20; New Delhi Office: Hotel Metro, Janpath, New Delhi.

Routes: Prague/Athens/Cairo/Bombay/Phnom Penh/Singapore/Djakarta/Singapore/Bombay/Athens/Prague.

Also: Prague/Athens/Teheran/Bombay/Singapore and vice versa.

General Sales Agents in India: Air-India.

## EAST AFRICAN AIRWAYS

199, Churchgate Reclamation, Jamshedji Tata Road, Bombay 20.

Three services a week from India to East Africa and two to Far East:—

1. Bombay — Karachi — Nairobi; 2. Bombay — Karachi — Nairobi — Dar-es-Salaam; 3. Bombay —

Karachi — Aden — Nairobi — Entebbe; 4. Bombay — Bangkok — Hong Kong; 5. Bombay — Hong Kong (Nonstop).

Convenient onward connections to Malawi, Zambia, South Africa, W. Africa at Nairobi.

Operates 9 services a week to the U.K. via European countries from Nairobi.

#### GARUDA INDONESIAN AIRWAYS

198, J. N. Tata Road, Churchgate, Bombay-20

#### INDIAN AIRLINES

Airlines House, 113, Gurdwara Rakab Ganj Road, New Delhi.

(See under Civil Aviation)

#### **IRANAIR**

Sunder Mahal, Marine Drive, Bombay 20.

The only airline offering bi-weekly Boeing 727 services to Teheran via Karachi and then to Rome, Paris, Frankfurt, Geneva, Moscow and London. Operating daily flights ex Teheran for Europe and London. Offers convenient connections for Ziarat Pilgrims on the sector Teheran/Baghdad.

#### JAPAN AIRLINES CO., LTD.

Regional Office for India: Chandralok Building, Janpath, New Delhi 1; District Office: 35A, Chowringhee Road, Calcutta-16; District Office: 86, Veer Nariman Road, Bombay-1.

The Company operates the following lines through India:—

Tokyo — Hong Kong — Bangkok—New Delhi — Teheran — Beirut — Rome — Paris — London — New York — San Francisco — Honolulu — Tokyo and vice versa.

Tokyo — Hong Kong — Bangkok — New Delhi — Teheran — Cairo — Rome — Frankfurt — London — New York — San Francisco — Honolulu — Tokyo and vice versa.

Tokyo — Hong Kong — Bangkok — Calcutta — Karachi — Cairo — Rome — Frankfurt — London and vice versa.

#### K. L. M. ROYAL DUTCH AIRLINES

1, Middleton Street, Calcutta; 9-A, Connaught Place, New Delhi; 198, J. N. Tata Road, Churchgate, Bombay 20.

1. CALCUTTA — KARACHI — KUWAIT — CAIRO — ATHENS — ZURICH — AMSTERDAM (Westbound — Saturdays); 2. NEW DELHI — KARACHI — KUWAIT — BEIRUT — ATHENS — FRANKFURT — AMSTERDAM (Westbound — Tuesday); 3. CALCUTTA — BANGKOK — MANILA — TOKYO (Eastbound — Mondays); 4. NEW DELHI — BANGKOK — MANILA — TOKYO (Eastbound — Fridays).

#### PAN AMERICAN WORLD AIRWAYS

Taj Mahal Hotel, Bombay. 42, Chowringhee Road, Calcutta. Imperial Hotel, New Delhi. 8/9, Thambu Chetty St., Madras 1. 363, Kollupitiya Rd., Colombo 3, Ceylon.

## QANTAS AIRWAYS LTD.

B.O.A.C. Air Booking Centre, 202-B, Vir Nariman Road, Churchgate, Bombay 20.

Qantas operates Boeing 707 services from Sydney to London via Calcutta and New Delhi with connections for onward journeys from London to New York, Bermuda, Bahamas, Mexico City, Vancouver, San Francisco, Honolulu, Nandi, New Zealand and Sydney with other services through Tokyo, Hong Kong, the Philippines, Johannesburg and Mauritius.

## ROYAL NEPAL AIRLINES CORPORATION

New Delhi: Hotel Janpath, Room Nos. 13 & 14, New Delhi-1; Patna: Hassan Manzil, Fraser Road, Patna-1; Calcutta: 3, Chowringhee Approach, Calcutta-13.

The Corporation operates the following lines in India:

New Delhi — Kathmandu & Calcutta — Kathmandu

New Delhi — Kathmandu & Calcutta — Kathmandu (Direct). Calcutta — Kathmandu (Via Biratnagar). Patna — Kathmandu.

#### SABENA BELGIAN WORLD AIRLINES

Ambassador Hotel, Churchgate, Bombay 20.

### SAUDI ARABIAN AIRLINES

Ambassador Hotel, Room Nos. 112, 113, Churchgate Reclamation, Bombay 20.

#### SCANDINAVIAN AIRLINES SYSTEM

18, Park Street, Calcutta 16.

The company operates the following routes:

Tokyo to Copenhagen via Manila, Bangkok, Calcutta,
Karachi, Teheran, Rome, Zurich, Frankfurt.

From Copenhagen convenient connections to the principal cities of Europe, Africa, the Middle East, North and South America.

#### SWISSAIR

Bombay 20: Manek Mahal, 90, Vir Nariman Road; New Delhi: 56, Janpath; Madras: Connemara Annexe.

Flights from Bombay to principal cities of Europe, USA, Canada, South America, Africa, Middle East and Far East.

## THAI AIRWAYS INTERNATIONAL LIMITED

C/o General Agents Scandinavian Airlines System, 18, Park Street, Calcutta 16.

The Company operates the following routes with Caravelle Jets:

From Calcutta to Rangoon, Bangkok, Kuala Lumpur, Singapore, Djakarta, Saigon, Hong Kong, Manila, Taipei, Tokyo, Kathmandu.

#### TRANS WORLD AIRLINES

Maker Bhavan, New Marine Lines, Bombay-20

T.W.A. Routes: BOMBAY — TEL AVIV — ATHENS — ZURICH — FRANKFURT — NEW YORK — LOS ANGELES and BOMBAY — COLOMBO — BANGKOK — HONG KONG — TAIPEH — GUAM — OKINAWA — HONOLULU — LOS ANGELES.

#### UNITED ARAB AIRLINES

Bombay 20: Eros Building, Queen's Road, Churchgate. Phone: 295862; New Delhi: Ambassador Hotel, Sujan Singh Park. Phone: 618587; Hyderabad (A.P.): Bashir Bagh, Main Road. Phone: 35577.

Exotic jet routes (Boeing 707/320C) from TOKYO to LONDON via HONG KONG — BANGKOK — BOMBAY — KUWAIT — CAIRO on to main cities in Europe.

## RAILWAYS

THE total route kilometrage of all the Railways in India on March 31, 1969 was 60,014·42. The total electrified route kilometrage was 3,247·32.

The total route kilometrage is made up of the following: Government Railways: 59,553.02.

Non-Government Railways: 461.40.

The total capital at charge of Government Railways on March 31, 1969 was Rs. 2,923.08 crores.

There are three kinds of gauge, broad (1.676 m.), metre (1.000 m.) and narrow (0.762 m.). There is also a light gauge usually laid on the mountains (0.610 m.). An example of the last one is the Howrah-Amta Light Railway lines.

The total route kilometrage by gauge was as follows:

Broad gauge: 29,219.84.

Metre gauge: 25,726.80.

Narrow gauge: 4,106.04.

There are in all 7,929 railway stations. This includes 1,797 non-block stations.

The total number of employees, permanent and temporary, on Government Railways (including non-Government Railways) and in the office of the Railway Board and other offices attached and subordinate thereto as well as staff employed on construction works at the end of 1968–69 was 1,358,857 compared to 1,367,615 (revised) at the end of 1967–68. Of this the non-Government Railways accounted for 4,586. The Railways have a fleet service of approximately 11,555 locomotives, 29,288 coaching vehicles and 365,299 wagons or freight cars. The non-Government Railways have 95 locomotives, 302 passenger coaches and 1,440 goods wagons.

#### ZONAL ADMINISTRATION

The entire Government Railway system is now grouped into nine administrations (Headquarters within brackets): Southern Railway (Madras); Western Railway (Bombay); Central Railway (Bombay); Northern Railway (Delhi); Eastern Railway (Calcutta); South-Eastern Railway (Calcutta); North-Eastern Railway (Gorakhpur); North-East Frontier Railway (Pandu); South Central Railway (Secunderabad).

Some of these Railways comprise smaller systems.

There are six non-Government Railways. The route kilometrage is given in brackets after the name:—

Arrah-Sasaram Light (104·86); Dehri-Rohtas Light (66·75); Futwah-Islampur (43·45); Howrah-Amta Light (70·31); Howrah-Sheakhala Light (27·16); Shahdara (Delhi)-Saharanpur Light (148·87).

They are all narrow gauge (0.762 m.) except the two Howrah-Amta and Howrah-Sheakhala which are light gauge (0.610 m.).

The highest administrative authority for the Railways is the Railway Board.

There are a number of Committees which have been associated with the Railway Administration: Standing Finance Committee, Central Advisory Council, Railway Rates Tribunal, Indian Railway Fuel Committee.

There are also a number of standardization Committees such as for bridges, structure, track, signalling and inter-locking, building, Iocomotive, carriage and wagon, electrical, specifications.

There are also Railway Users' Consultative Committees at the zonal, regional and national level. There is a Time

\* Source : Railway Board Report for 1968-69.

Tables Committee, Suburban Railway Users' Consultative Committee, Passenger Amenities Committee, Catering Supervisory Committee, Book-Stall Committee. A Public Co-operative Committee consisting of members from National Railway Users' Consultative Council and Members of Parliament was formed to combat crime. Zonal Parliamentary Committees have been constituted which meet the respective General Managers of the Zonal Railways in company with the Railway Minister and the Railway Board.

There are Railway Service Commissions in Bombay, Calcutta, Allahabad and Madras.

There is a training college for Railway officers and staff at Baroda and 50 Training Schools.

There is a Railway Testing and Research Centre at Lucknow and a sub-centre at Chittaranjan mainly to help in the promotion of self-sufficiency in Railway Stores.

#### STATISTICS\*

The principal statistics for the year 1968-69 are given below. The first column shows the position for all Railways, the second only for Government Railways:

All	l Railways	Government Railways
Capital-at-charge (Rs. crores) <sup>7</sup> Route kilometrage (March	3,107 · 77	2,923.08
31)	60,014.42	59,553.02
Gross earnings (Rs. crores) <sup>1</sup> Total working expenses (Rs.	902 · 69†	900.91
crores) <sup>2</sup> ·· ··	745·831	744.06:
Operating ratio (per cent) <sup>3</sup> No. of passengers originating	82.62	82.59
(million)	2,230 · 39	2,212.61
Passenger k.m. (million) Earnings from carriage of	107,293 · 83	106,940 · 21
passengers (Rs. crores)	266 • 11†	265 · 10
Average earnings per passenger kilometre (Paise).	2.48†	2.48
Freight tonnes originating	205 · 04¶	204 · 04
(million) <sup>4</sup>	125,197 · 12	
Earnings from carriage of goods (Rs. crores) <sup>5</sup> Average earnings per freight	549.64	548.97
tonne k.m. (Paise)	5.08	5.08
Total train k.m. (million) @ Gross earnings per train	462.36	459.58
k.m. (Rs.)	20.5†	20.6
Working expenses <sup>2</sup> per train k.m. (Rs.)	17-1‡	17 · 1‡
Net earnings per train k.m. (Rs.)	3.40†	3.43†
Net earnings <sup>6</sup> per mean route k.m. worked (Rs.)	26,415 · 00†	26,618 · 00†

<sup>(1) &#</sup>x27;Gross earnings' represent the true earnings in an accounting period irrespective of whether the amounts have been realised or not. They include earnings from Mormugao Harbour and also earnings awaiting realisation. (1) 'Working expenses' are the administrative figures of railway accounts representing true expenses of the railway system in an accounting period irrespective of whether the expenses have been disbursed. These are accordingly the sum total of the ordinary working expenses and the appropriation to the Depreciation Reserve Fund (and the Pension Fund from 1st April, only); the amount of suspense and 'payments to worked lines' are not included. (\*) 'Operating ratio' shown here represents the percentage

of working expenses to gross earnings as defined at (') & (*) above. (*) Freight tonnes originating including reliable and materials carried in materis on open lines for railway constructions project at owned or hired by them for independent railway. These statistics were not taken into account in (*) 'Earnings from carriage of goods' exclude carnin rage wharfage, etc. (*) 'Net earnings' represents minus working expenses, as defined in explanation (*) 'Capital-at-Charge' includes the capital outlay of the texture of the capital outlay of the capital condition of the Integral Coach Factory, the Diesel Locomotthe Integral Coach Factory and Integral Coach Factory of the Communication Project, etc.  † Includes the element of tax on passenger fares. † During 1968-69 the contribution to the Depretund was Rs. 95 crores as against a like sum in the factory of the D. B. K. section during 1st April, 1968 to 31s when the line was still under construction.	des the tonnage al/ballast trains athorities, stock project works. earlier years, gs from demurgross earnings ) and (*) above. on worked lines d miscellaneous motive Works, the the Railway clation Reserve previous year.
Other information about Indian Railways are given below:—	for 1968-69
New Lines opened to Traffic	740·13 k.m.
Lines under construction	740·13 k.m. 1,017·24 k.m.
Surveys for new railway lines/conversions 2	,106.55 k.m.
Metre Gauge line converted to Broad Gauge	
No. of Steam Locos (including sentinel types)	11,640
No. of Bream Locos (vacuating sentinet types)	10,141
No. of Diesel Electric Locos	894
No. of Electric Locos	513
No. of Diesel Hydraulic and Mechanical	112
No. of Passenger Carriages (including brake	
vans and Railway services vehicles)	37,710
AND A TOTAL A COLUMN TO THE PARTY OF THE PAR	
	1,668,003
No. of air-conditioned seats	2,509
No. of 1st Class seats	126,848
No. of 2nd Class seats	61,502
No. of 3rd Class seats	1,477,084
No. of Goods Wagons	398,399
Total No. of Passengers Carried ('000)	2,230,400
No. of A.C. ('000)	232.0
No. of 1st Class Passengers ('000)	75,600.0
No. of 2nd Class Passengers ('000)	10,300.0
N	2,144,300.0
M-1-1	
Total Earnings from Passengers (Rs. in crores)	107,294,000
Earnings from A.C. Passengers (Rs. in '000)	2,28,00
Earnings from 1st Class Passengers (Rs. in	
'000)	19,43,00
Earnings from 2nd Class Passengers (Rs. in	
'000)	8,12,00
Earnings from 3rd Class Passengers (Rs. in	-,12,00
2000)	0.20.00.00
'000)	2,36,28,00
Goods carried ('000 tonnes)	204,040
Earnings from goods carried (Rs. in crores)	549 · 64†
Net tonne k.m. ('000)	125,140,000
Average k.m. a tonne of Goods was carried	613
Value of stores imported direct (Rs. in crores)	322 · 2
Value of stores of indigenous origin (Rs. in	
crores)	289-81
	200-01
Cost of Police and Railway Protection Force	10.00.01
(in Rupees)	13,32,81,737
Capital-at-charge, Chittaranjan Works (Rs. in	
'000)	47,12,78
Capital-at-charge, Integral Coach Factory	
(Rs. in '000)	25,06,31
Capital-at-charge, Diesel Locomotive Works	
(Rs. in '000)	39,68,34
Capital-at-charge, D. B. K. Railway Project	00,00,04
(Pa in '000)	37.4

STAFF	
The total strength of Staff including non-Govt.	
Railways (March 31, 1969)	1 950 055
Class I and II Staff	1,358,857
Class III and IV Staff	7,601
Non-Good Railange Staff	1,351,252
Class III running Staff	4,586
Class III Workshop and Artisan Staff	66,850
Class III Staff other than Workshop artisan	179,680
and minming	27 = 000
Class III amain - Class	315,669
	25,914
Class IV other than Workshop artisan and	× 10 100
running Staff	5,42,468
Class IV Workshop & artisan Staff	216,179
The total cost of Class I and Class II Staff	
(Rs. in '000)	10,42,66
The total cost of Class III running staff (Rs. in	S. C. STATE OF STREET
'000)	35,05,91
The total cost of Class III staff other than	
running, workshop and artisan (Rs. in '000)	1,34,03,04
The total cost of Class III staff, Workshop and	
artisan (Highly skilled, skilled and skilled	
supervisory) (Rs. in '000)	64,09,94
The total cost of Class IV running staff (Rs. in	
'000)	7,76,42
The total cost of Class IV staff other than	
workshop, artisan and running (Rs. in '000)	99,71,14
Class IV, workshop and artisan Staff (Rs. in	
'000)	41,77,62
Total cost of workshop & artisan staff, Class	
III or IV (Rs. in '000)	1,05,87,56
Man-days lost due to Sickness for classes other	
than I and II Staff	16,109,362
Man-days lost due to Strikes and labour	
trouble by staff other than Class I & II	132,804
Total Man-days lost	16,242,168
** * * * * * * * * * * * * * * * * * * *	336,835
	488
No. of deaths due to various kinds of diseases	The state of the s
Female Employees	
Total No. of Female Employees	16,627
Class I and Class II Officers	228
Class III Staff:	Nil
Workshop and artisan staff	3,800
Clerks	166
Stenographers	2,049
Nurses	1,289
Teachers	1,671
Others	1,011
Class IV Staff:	205
Workshop and artisan staff	295
Other than workshop and artisan staff	7,129
Note: All the figures relate to Govt. Railways u	nless otherwise

CTATE

Note: All the figures relate to Govt. Railways unless otherwise stated.

MAJOR ACCIDENTS IN 1968-69

The following were the four major Railway accidents which took place during 1968-69: (1) At 00·50 hours on 18th April 1968 a collision took place near Meghnagar station on Godhra-Ratlam double line section of the Western Railway. After goods train No. 768 Up had started moving at 00·50 hours, diesel goods train No. 846 Up came from behind and collided with the rear of the former. As a result of this accident 12 persons were killed and five injured. The cost of damage to railway property was estimated at approximately Rs. 6,93,500. (2) On May 28, 1968 at about 3·45 hours, Goods train No. DD 27 Down ex-Melapakam to Nandaluv was approaching Renigunta Station on the Arkonam-Raichur section of the Southern Railway, it entered Road No. 5 and collided with the stationary rakes of passenger train No. 418 Up

N.A.

67,32,02

2,10,65

(Rs. in '000)

Railway Electrification (Rs. in '000)

Railway Board (Rs. in '000) ...

<sup>†</sup> Excludes miscellaneous goods earnings like demurrage, wharfage etc.

Renigunta-Madras and 93 Down Renigunta-Raichur. As a result 14 persons were killed and 51 injured. The cost of damage was estimated at approximately Rs. 1,06,500. (3) On 7th August 1968, at 14.57 hours, the third coach from the engine of train No. 2FTD Delhi-	
Tundla-Farrukhabad Passenger, which left Maripat	
Station was noticed to have caught fire. As a result of	
fire and the passengers jumping out, 18 persons were	
killed and 43 injured causing damage to the tune of	
Rs. 55,000. (4) On Feb. 4, 1969, No. 114 Up Madurai-	
Madras Janata Express with a number of unauthorised	
ticketless passengers travelling on the engine, footboards	
and roof tops proceeding to Madras to attend the funeral	
of Shri Annadurai, the late Chief Minister of Tamil Nadu,	
of Shri Annadural, the late office minister of Faint Made,	
passed through Vallampadugai Station, and while passing	
over bridge No. 685 at Km. 251/7-8, some of the roof	
travellers were struck by the overhead bracing of the girders. As a result 37 persons were killed and 38 injured.	

#### Casualties 1968-69

Takus is				Killed	Injured
Passengers			To be a second	514	2,911
Railway Serv	ants	11.00		313	17,100
Other than p		rers &	Rail-		
way Staff				517	513
Trespassers				4,050	1,829
Suicides			1.	252	27
Total				5,646	22,380

#### CENTRAL RAILWAY, 1968-69 (Victoria Terminus, Bombay 1)

(Victoria Terminus, Dombay	1)	
Total Route Kilometrage	1/200	5,771 - 79
Broad Gauge		4,592.56
Metre Gauge		382-67
Narrow Gauge		796-56
New Construction in Hand, Kilometrage		308.8
Kilometrage Electrified	90 90	297.54
0 11 1 101 00 1 00 1		405 · 19
C		126.88
Gross Earnings ,, ,, ,.		100.62
Working Expenses ,, ,,		26.26
Net Earnings ,, ,,		
No. of Locos actually running   Steam		1,051
on March 31, 1969 Electric		130
Diesel		181
Total No. of Passenger Carriages actua	lly	
running on March 31, 1969		1,944
Seats by Classes :-		
Air and distant		280
Time Cl		9,484
		4,639
Second Class	•	
Third Class	••	1,03,016
No. of Passengers carried (in millions)		469.8
No. of Wagons actually running \ Covere	d	32,071
on March 31, 1969 \ \int Open		12,913
Tonnage carried (in millions)	100	37.30

### EASTERN RAILWAY, 1968-69 (Fairlie Place, Calcutta)

The Land of the Confect Cards		
Broad Gauge		4,012.50
Metre Gauge		(nil)
Narrow Gauge		131.38
Kilometrage electrified		1,202 · 86
Capital-at-charge (Rs. in Crores)		406.62
Gross earnings (Rs. in Crores)		123.74
Working expenses (Rs. in Crores)		96.98
Net earnings (Rs. in Crores)	TAMES P.	26.76

Locomotiv	es:					
Steam						1,113
Diesel						103
Electric						167
Motor Cod	ches					110
Trailer Co	paches (i	n vehic	le unit.	8)		499
Passenger						2,718
Other Coa					8)	422

No. of Rolling stock on 31-3-69:

66,833 Wagons (in vehicle units) ... 346 - 76 No. of passengers carried million 51 - 27 Total tonnage lifted (originating) million 1,96,213 Staff on March 31, 1969

## **NORTHERN RAILWAY, 1968-69**

(Baroda House New Delhi 1)

	(Baroo	la H	ouse, iver	M Dell	пт)	
Total kilometre	age					10,590.88
Broad Gauge	M 400				or head the	6,898 - 57
Metre Gauge						3,432.75
Narrow Gauge						259.56
Mileage Electr						351.00
Capital-at-char		in o	crores)			416.78
Gross earnings						134 · 14
Working exper	ises (R	s. in	crores)			111.88
No. of passen	gers co	rrie	d on the	systen	ı (in	
+111				0.00		252 · 33
Net earnings (	Rs. in	crore	es)		)	22-26
No. of Locos :			B.G.		M.G.	N.G.
Steam			1,258		371	48
Diesel Hydr	aulic		5		-	10
Electric			65			CALL TO SE
Diesel Electi	ric		72			
Diesel Mech	anical		15		-	5
No. of passeng	er coac	hes	2,521		961	140
Passenger carr	ying co	paci	ty:			
Air-conditio			273		72	AVAIL TO SELECT
1st Class			10,908		2,370	494
2nd Class			6,546		2,604	240
3rd Class			150,376*		,576†	3,423
			+ 647		+ 13	
			berths	be	erths	
No. of goods w	agons.	open				
High sided			13,488		960	48
Low sided			809		224	3
No. of goods	wagons					
Covered			27,312	5	,183	133
Tonnage lifted	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nes				
in million)						45.40
Staff (Total)						195,121
77						

## NORTH-EASTERN RAILWAY, 1968-69

(Gorakhpur)

Total kilometrage		. 4,965.23
		. 52-47
		. 4,912,76
		. Nil
Working expenses (Rs. in crores)		1 1 0 00
Net Earnings (Rs. in crores)		
Total No. of Engines on line (in unit	s) .	"ATST
No. of Locos (Electric) (in units)		. Nil
No. of passenger coaches (in units)		. 2,583

Tonnage carried (in millions)

Total Route Kilometrage

Total No. of Staff on March 31, 1969

1,77,096

4.143 - 88

<sup>\*</sup> This includes 256 seats of Dining Car.

<sup>†</sup> This includes 129 seats of Dining Car.

Passenger Carrying Capacity :-		Air anditional	
(a) Air-conditioned	96	Air-conditioned passenger seating capacity	Nil
(b) 1st Class	6,720	2nd Class	5,723
(c) 2nd Class	7,684	3rd Class	4.562
(d) 3rd Class	123,392	No of massengers carried (in thousand)	96,650
Total	137,892	No of goods anggons (sousped)	109,356
No. of passengers carried (in '000s)	154,483	No of goods anggons (ones)	10,233*
Broad Gauge	1,219	Tonnage lifted (tonnes in thousands)	3,336* 11,578
Metre Gauge	153,264	Staff (Total)	96,278
No. of Goods Wagons, Covered (in units)	20,212		50,216
No. of Goods Wagons, Open (in units)	4,988	* This Railway does not own any BG Stock.	
No. of Goods Wagons, Special (in units)	4,298	SOUTHERN RAILWAY, 1968-69	
Tonnage lifted (tonnes in thousands)	12,780	(Madras Central, Madras)	
No. of Staff (Total)	92,341	Pouts bilometrane (a) Motel	7 444 00
NORTH-EAST FRONTIER RAILWAY	1968-69	(b) Broad Gauge	7,444 · 98 2,334 · 47
(Pandu, Assam)	, 1000-00	(c) Metre Gauge	4,957.45
Total Route Kms. BG	645-21	(d) Narrow Gauge	153.06
MG	2,899.79	New construction in hand (Kms.)	200 00
NG	87.48	(a) Mangalore-Hassan Line	189-21
Mileage electrified	Nil	(b) Mangalore-Panambur Harbour Link	25.86
Capital-at-Charge (Rs. in crores)	199-44	Kilometrage electrified	166-44
No. of locos:	ALCOHOL:	Capital-at-Charge (Rs. in crores)	300.65
(a) Steam BG	115	Gross Earnings (Rs. in crores)	79.30
MG	393	Working Expenses (Rs. in crores)	79.05
NG	27	Net Earnings (Rs. in crores)	0.25
(b) Diesel BG	Nil	Rolling Stock :-	
MG	67	(a) Average No. of locos on line:-	
NG	Nil	(1) Steam	1,208
(c) Electric BG	Nil	(2) Electric	20
MG	Nil	(3) Diesel Electric	147
NG	Nil	(b) Average No. of passenger coaches on line	3,590
No. of passenger coaches BG	242	Passenger seating capacity :-	
MG	1,392	(a) Air-conditioned	422
Passenger carrying capacity:		(b) 1st Class	14,662
Air-conditioned BG	3	(c) 2nd Class	9,570
MG	70	(d) 3rd Class	231,572
1st Class BG	1,068	No. of passengers carried (in '000s)	208,545
MG	4,188	No. of Goods wagons (a) Covered	19,326
2nd Class BG	717	(b) Open	10,274
MG	2,305	Tonnes carried (in thousands)	19,285 133,958
3rd Class BG	14,704	Staff (Total)	100,000
No. of passengers carried (on the system)	62,423	SOUTH-EASTERN RAILWAY, 1968-	69
No. of goods wagons (covered) (in units) MG	49,189,800	(Garden Reach, Calcutta 43)	
No. of goods wagons (open) (in units) MG	7,091 2,210	Total Route Kilometrage	6,802 - 15
Towns a carried (Motal) MO	11,410,000	Broad Gauge	5,323 · 32
No of staff (Motol)	78,934	Metre Gauge	Nil
		Narrow Gauge	1,478 83
SOUTH CENTRAL RAILWAY, 190	68-69	Kilometrage electrified	861 · 83
(Secunderabad-25) -		Kilometrage under construction	75.41
Total Route Kilometrage (as on 31-3-1969):		Capital-at-Charge (Rs. crores)	571.81
Broad Gauge	2,605-81	Gross Earnings (Rs. crores)	150.36
Metre Gange	3,183-26	Working Expenses (Rs. crores)	98.07
Narrow Gauge	370-18	Number of Locos :-	7.011
New Construction in Hand (Conversion of	A COLUMN TO THE REAL PROPERTY OF THE PARTY O	Steam	1,011
M.G. to B.G.)	Miraj KGP	Diesel Electric	196
	Section	Diesel Hydraulic	15 130
Kilometrage	47.13	Electric	Nil
Kilometrage electrified	Nil	Railcars	2,259
Capital-at-Charge (in Rs. '000s)	17,82,791	No. of passenger coaches	2,200
Gross Revenue Receipts (in Rs. lakhs)	7,625 · 23	No. of Goods Wagons :-	15 661
Working Expenses	6,165 · 41	Covered	15,661 22,106
Net Revenue Receipts	1,419.82	Open	168,322
Average No. on line daily:		No. of Staff	100,022
No. of Locos:		Passenger carrying capacity:	334
Steam	1,005	Air-conditioned	10,025
Electric	Nil	1st Class	5,395
Diesel Electric	Nil	2nd Class	116,421
No. of passenger coaches	1,840	3rd Class	110,321

RAILWAYS 269

No. of passengers car	ried	**		109,927,000
Tonnes of Goods lifted				68,475,000
Capital-at-Charge			-	Rs. 5,71,80,91,000
Gross Earnings	14.4			,, 1,50,35,88,000
Working Expenses	44		10 . 1	,, 98,06,79,000
Net Earnings		1184.400		,, 52,29,09,000

#### WESTERN RAILWAY, 1968-69

			**	
	(Chure	harata	Bom	narri
-	Unuic	ngavo	· DOM	DOLY

		(Onuron	gare, De	minay )		
Total R	Route Kilon	netrage				10,042 · 38
	Gauge (incl		ectrified	Kms.)		2,761.48
	Fauge					6,079 · 16
Narrou	Gauge		2.00	100		1,201 - 74
	trage Electr					60.17
Canital	-at-Charge	(Rs. in		(exclue		
	ense)					338 · 89
Gross H	Revenue Ea	rnings (I	ks.in cro	res)		136.88
Workin	g expenses	(excludin	เล รนรทยา	se) (R		
crore			3 2		1	105.50
	venue Earn	ings (Rs	in eror	es)	1000	31.38
No of	locos (Stear	n)	0202	/	de la	1,591
No of	locos (Diese	ol Electri	(2)	14150		139
No of	locos (Diese	ol Hadra	ulic)			27
Electric	Motor coa	ches				106
No of	passenger	r coache	e (inclu			
	ing vehicle					4,739
					-	and the same
	ger carryin		y (seats	by clas	sses) :-	
(1)	Air-conditi					394
	B.G.	**		**		100
	M.G.			**	2.25	100
(11)	First Class					12,248
	B.G.					THE PARTY OF THE P
	M.G.					8,361
	N.G.		**			849
(111)	2nd Class .					1 040
	B.G.					4,246
	M.G.					5,456
(iv)	Third Class	8:				04.040
	B.G.	**				84,040
	M.G.					110,976
	N.G.					10,670
	passengers					609,221
	Goods wago					31,053
No. of	special wag	ions			**	8,130
No. of	Goods wage	ons (open	)			12,526
Tonnes	carried (ir			v. de A	Von-	
Rev.)			***			33,835
No. of	-1-00					180,215
				20 000		

#### REVIEW OF 1968-69 Goods and Passenger Traffic

During 1968-69, the passenger traffic of Govt. Railways registered a drop of 1.98 per cent in terms of passengers originating and 0.21 per cent in terms of passenger Kilometres. Revenue earning goods traffic in terms of tonnes originating and net tonne Kilometres, showed an inprovement of 5.21 per cent and 6.93 per cent respectively.

The gross earnings of Indian Railways, including non-Government Railways were Rs. 902·7 crores in 1968–69 against Rs. 823·1 crores in the previous year. The gross traffic receipts of Government Railways including worked lines accounted for Rs. 898·84 crores against Rs. 818·14 crores in 1967–68.

After meeting all charges including Rs. 97·40 crores contributed to the Depreciation Reserve Fund, Rs. 150·67 crores paid to the General Revenues including payment in lieu of tax on passenger fares, and an expenditure of Rs. 7·67 crores on open line works (Revenue) net revenue

fell short of dividend payable to General Revenues by Rs. 7-86 crores against the short fall of Rs. 31-53 crores during the previous year.

#### New Lines

New lines totalling 740·13 kms. were opened to public traffic during 1968–69. Lines totalling 1,017·24 kms. were under construction and surveys for new railway lines conversions were ordered for 2,106·55 Km. during the year. Lines totalling 259·90 Km. were doubled and opened to traffic. The conversion of 326·15 kms. of metre gauge to broad gauge between Poona and Miraj (279·00 kms.) and Miraj and Kolhapur (47·15 kms.) on the South Central Railway was in progress.

#### Bridges

The total number of bridges (including road over and under bridges and irrigation over head channels which do not serve as water-ways) on Government Railways was 103,379 as on March 31, 1969. Of this, the number of bridges having water-ways was 102,246. There were 8,325 major bridges. The work of regirdering, strengthening, rebuilding, extension, replacement and renewals, etc. was completed on 484 bridges and work on 147 bridges was in progress during the year.

#### Electrification

During the year progress was maintained on the extension of 25 KVAC electric traction on various sections of the Central, the Eastern and the South Eastern Railways. Work was completed on 351 route kilometres. With the energisation of the above lines the total route length of railway line electrified on the 25 KVAC system was 2,889 route kilometres. The total route length including 358 route kilometres which already existed on 1,500 V DC system of traction on the Central and the Western Railways aggregated to 3,247 route kilometres as on March 31, 1969.

#### Commercial Advertisement

From Commercial advertising on the Railways, an amount of Rs. 64,61,367 was earned during 1968-69 as compared to Rs. 57,46,249 during the previous year.

#### Complaints

There were 2,138 complaints pending disposal at the beginning of the year and 40,184 complaints were received during the year as against 45,201 in the previous year. Of the total of 42,322 complaints, 40,371 were disposed of in the course of the year leaving a balance of 1,951.

#### Claims, Compensations

During the year the Railways had to deal with a total of 820,898 compensation claims including 59,047 unsettled claims at the close of the preceding year. The number of claims settled during the year was 705,865 leaving 55,033 claims outstanding at the close of the year. The net amount paid as compensation for goods and parcels lost or damaged was Rs. 9·30 crores as against Rs. 7·22 crores in the previous year.

Applications numbering 189,609 for refund of overcharges in respect of goods and parcels were received against 159,329 during the previous year.

#### Ticketless Travel

Number of passengers detected travelling without tickets or with improper tickets: 8·47 million; Amount of fare and excess charges realised: Rs. 304·34 lakhs; Number of passengers prosecuted 0·32 million; Number of cases of unbooked and partially booked luggage: 1·84 million; Amount realised from unbooked and partially booked luggage cases: Rs. 60·12 lakhs.

#### Fourth Plan

The draft of the Fourth Five Year Plan commencing from April 1, 1969 was brought out by the Planning Commission in March 1969. The Railways Fourth Five Year Plan\* envisages an outlay of Rs. 1,575 crores to be spent during the five year period 1969-70 to 1973-74.

In addition a sum of Rs. 50 crores has been allotted, outside the Railway Plan for providing mass transit facilities in the metropolitan cities of Bombay, Calcutta, Madras & Delhi.

#### Security Measures

The Railway Protection Special Force rendered useful service in providing security measures and protecting vital railway installations.

They also assisted the ticket checking staff on zonal Railways in organising drives against ticketless travel.

During 1968–69, 6,374 persons were arrested for thefts of public property and railway materials and equipment as against 4,595 persons in 1967–68. The number of cases of theft of railway materials and equipment came down to 29,960 against 30,038 cases in the previous year. The value of property stolen also came down to Rs. 32·08 lakhs from Rs. 35·83 lakhs. Thefts of booked consignments from running trains, yards, goods-sheds, parcel offices and platform declined from 2,655 to 1,964 and cases of pilferage also came down from 6,825 to 5,021 in 1968–69.

The Railway Property (Unlawful Possession) Act, 1966, came into force from April 1, 1968 empowering the R. P. F. to investigate and prosecute cases in which case if any one is found or is proved to have been in possession of any railway property reasonably suspected to have been stolen or unlawfully obtained. During the year 1968-69, 966 cases were registered under this Act, and property worth Rs. 13·41 lakhs was recovered. A total of 12,262 persons including 1,768 railway employees were arrested. Of these 2,160 persons were convicted, 184 acquitted and the remaining were under trial.

#### Staff and Labour Welfare

Relations with organised labour suffered a set back due to the token strike on September 19, 1968. Consequently, as a general policy of the Government, it was decided that the Unions/Associations which participated in the strike should be derecognised. But the affiliated Unions of the All-India Railwaymen's Federation on the Central , the Western and the South Central Railways continued to enjoy recognition. The scheme of joint consultation and compulsory arbitration for Central Government employees including railway servants continued to function satisfactorily. The machinery provides for meetings of Joint Councils at the National and the departmental levels on the railways. The joint council at the departmental level, known as the Departmental Council, was formally inaugurated on July 10, 1968.

Railway Schools: The Government have provided as a staff welfare measure, a number of railway schools at places where educational facilities are not available. In 1968-69 the railways were running 749 schools—two intermediate colleges, 48 high/higher secondary schools, 33 middle schools and 666 primary schools. The pupils who attended these schools were 145,105 in 1968-69.

## RAILWAY BUDGET 1970-71

The Railway Budget presented on February 23,1970 by the Railway Minister Mr. Gulzarilal Nanda, shows a surplus of 22.38 crores. Fairly steep increases were announced in passenger fares for all classes of travel and

\* Final document.

in freight rates for all categories, of goods to boost the rail-ways' earnings by Rs. 39 crores in 1970–71. The Minister pleaded that he had no alternative but to tap every available source of revenue to raise additional resources of Rs. 329 crores in the Fourth Plan to finance Railway programmes. Even the existing fare concessions for travel by airconditioned chair except the concession admissible to children below 12, have been withdrawn. Travel by A. C. chair car will cost about Rs. 6 more than the enhanced second class fare.

The increase in passenger fares works out to seven per cent for first class.

Before the Parliament took up the railway budget for discussion on March, 4, Mr. Nanda announced the withdrawal of the proposed increases in third class fares, sleeper charges, price of platform tickets and freight rates for food grains and parcel charges for milk. This would decrease the expected rise through higher fares and freight rates of Rs. 39 crores to Rs. 26 crores in 1970-71.

The all-round increase in fares will hit passengers travelling by any class other than 3rd class on mail, express or passenger trains and monthly season ticketholders on the suburban lines in Bombay, Madras and Calcutta.

It is estimated that the increase in freight rates will bring in an additional revenue of Rs. 25.5 crores in 1970-71.

Parcel rates have also been adjusted to yield an additional revenue of Rs. 2 crores.

Earlier, the Minister reviewed the performance of the railways in the current year and said that, against an anticipated increase of nine million tonnes in goods traffic, the increase at the end of the year might be no more than 5.5 million tonnes.

By raising the fares and freight rates Mr. Nanda has attempted to close this gap and show a surplus of Rs. 22. 38 crores after providing for the payment of a dividend to general revenues.

Outlining the prospects for 1970–71, Mr. Nanda said that allowing for a normal increase of 3 per cent in passengers and 2 per cent in other coaching Traffic and an increase of the order of 7.6 million tonnes in originating goods traffic, the gross traffic receipts, without the proposed rationalisation of the freight and fare structure should total up to Rs. 983 crores — an increase of about Rs. 32½ crores over the current year. As against this, ordinary working expenses would go up by Rs. 17.94 crores, appropriation to depreciation Reserve Fund and Pension Fund would each go up by Rs. 5 crores and the dividend would go up by Rs. 8.66 crores.

#### Works Programme

A provision of Rs. 280 crores has been made for works expenditure in the 1970–71 budget, Rs. 37 crores more than the revised estimates for 1969–70. There is a provision of about Rs. 124 crores for rolling stock and fresh orders are proposed to be placed for over 15,000 wagons against the 1970–71 programme. Among the important new projects to be taken up in 1970–71, Mr. Nanda announced the construction of a new Broad Gauge line from Tornagallu to Madukulapenta in Mysore and electrification of Waltair-Kirandul section, both of which will add to the Railways capacity for moving iron ore export.

#### Fourth Plan

The Working Group on Rail Transport set up under the auspices of the Planning Commission has assessed the freight traffic in 1973–74, the last year of the Plan, at about 265 million tonnes. Non-suburban passenger traffic is

#### AT A GLANCE

(Rupees in crores)

	Actuals 1968–69	Budget Estimate 1969–70	Revised Estimate 1969-70	Budget Estimate 1970-71
Gross Traffic Receipts	898-84	946.80	950-55	983·00 +39·00 (Effect of Budget proposals)
Ordinary Revenue Working Expenses (Net) i.e.,	020 70	005 05	690.05	700-99
after taking credit for recoveries	636-78	665 • 35	638-05	700.99
from Revenue	95.00	95.00	95.00	100.00
Appropriation to Pension Fund	10.00	10.00	10.00	15.00
Net Miscellaneous Expenditure (including cost of Works charged to Revenue)	14.25	15.53	16.62	16-54
Total	756-03	785 88	804-67	832-53
Net Railway Revenue	142.81	160.92	145-88	189-47
Dividend to General Revenues	150-67	159.01	158-43	167.09
Net Surplus (+)/shortfall (-)	(-)7.86	(+)1.91	(-)12.55	(+)22.38
Operating ratio	82.5%	81.4%	82.9%	79.8%

expected to increase during the Plan period by 23 per cent. The increase in suburban passenger traffic expected is somewhat more.

The Plan expenditure for achieving the proposed targets has been placed at Rs. 1,525 crores. This includes Rs. 620 crores for rolling stock, Rs. 15 crores for plant and machinery, Rs. 200 crores for track renewals, Rs. 28 crores for bridge works, Rs.82 crores for electrification, Rs. 315 crores for the line capacity works, Rs. 30 crores for workshops and sheds, Rs. 40 crores for signalling and safety works, Rs. 45 crores for staff quarters and welfare, Rs. 20 crores for passenger amenities, Rs. 10 crores for investment in road services and Rs. 83 crores for new lines. The balance of Rs. 37 crores is intended for certain miscellaneous expenses and inventories.

#### Relations with the Staff

Relations with organised labour continued to be cordial during the year. The cases of nearly 5,000 railway employees out of those who were suspended or discharged as a result of the strike of certain sections of Central Government employees in September 1968, have been sympathetically considered. Orders were being issued that Class III and Class IV staff of all grades, who have been at the maximum of their pay scales for two years or more, should be allowed a personal pay equivalent to the amount of the increment last drawn by them in the scale. Staff who have been at the maximum of the scale of Rs. 450-575 for two years and over will be granted a personal pay of Rs. 30 a month.

The findings of the Miabhoy Tribunal are awaited. Certain items on which agreement would not be reached in the Departmental Council for Railways of the Joint Counsultative Machinery have been referred to a Board of arbitrators.

For medical and health services for railway employees, 205 general beds and 42 beds for tuberculosis patients were added in 1969 in the 95 hospitals, 541 health units and 67 chest clinics functioning on the Railways.

## GOVERNMENT INDUSTRIAL UNDERTAKINGS

IN the following pages we give short notes on Government industrial undertakings.

The total investment in the public undertakings at the end of March 1969, stood at Rs. 3,533 crores.

Six major undertakings—The Hindustan Steel Ltd., the Heavy Engineering Corporation Ltd., Bharat Heavy Electricals Ltd., Heavy Electricals (India) Ltd., the Mining and Allied Machinery Corporation Ltd., and Hindustan Aeronautics Ltd.—accounted for an investment of Rs. 1,719 crores.

The overall performance of 61 Central undertakings in operation during 1968-69 shows a net loss of about Rs. 27 crores against the net loss of Rs. 35 crores in the previous year.

Thirty-five undertakings made a total net profit of

Rs. 65·36 crores (against Rs. 49 crores in 1967-68 by 39 of them) while 26 other undertakings, including the Hindustan Steel Ltd., and the Heavy Engineering Corporation incurred a net loss of Rs. 92·23 crores (against the loss of Rs. 84 crores by 28 of them in 1967-68).

The Hindustan Steel Ltd. incurred a loss of Rs. 39·42 crores against Rs. 38·77 crores and the Heavy Engineering Corporation Ltd. a net loss of Rs. 14·12 crores against Rs. 13·44 crores.

Other undertakings whose losses increased during 1968-69 included Indian Drugs and Pharmaceuticals Ltd. (Rs. 9·07 crores), the Mining and Allied Machinery Corporation (Rs. 6·39 crores), National Mineral Development Corporation, Hindustan Machine Tools, National Instruments Ltd., and National Small Industries Corporation Ltd.

#### ASHOKA HOTELS LIMITED

50-B, Chanakvapuri, New Delhi.

India's only 5-star de luxe hotel. It is fully airconditioned and has private swimming pool, refrigerator, telephone and bath for every room.

No. of rooms 491; No. of beds 798. The highest and lowest charge per day: Rs. 325 to Rs. 70.

#### ATOMIC REACTORS

(Trombay, Bombay 71)

(See under "Research")

#### BHARAT ALUMINIUM COMPANY LIMITED

(Under the Ministry of Petroleum & Chemicals and Mines and Metals)

Registered Office: F-41, N.D.S.E., Part I, New Delhi-49.

Objects: Constructing, managing and operating the Korba (Madhya Pradesh) and the Koyna (Maharashtra) Aluminium Projects and to undertake allied activities. Brief details of the two Aluminium Projects are given below:—

Korba Aluminium Project: It consists of a 200,000 tonnes per annum Alumina Plant, a 100,000-tonnes per annum Smelter for production of aluminium metal and facilities for manufacture of aluminium semis. The project has the technical assistance from Messrs. Chemokomplex of Hungary up to the Alumina stage and the technical and financial assistance from Messrs. Tsvetmetpromexport of the U.S.S.R. for the Smelter and Fabrication facilities.

Construction is in progress.

Koyna Aluminium Project: The project which is planned to produce 50,000 tonnes of aluminium metal per annum is being implemented with the assistance of Hungarian firm, Messrs. Chemokomplex.

## BHARAT EARTH MOVERS LTD. Hindustan Aircraft Post, Bangalore-17.

The Bharat Earth Movers Ltd. manufactures wheeled heavy earth moving equipment and broad gauge rail coaches of various types. The Railcoach factory in Bangalore supplies to the Railway Board the modern integral type rail coaches of various models in addition to parcel vans and postal vans. The factory at KGF manufactures wheeled earth moving equipments like C scrapers, Motor Graders, Rear dumps and Crawler Tractors like Bharat D80-8, D120-18, and D50 with a progressively increasing indigenous content.

## BHARAT ELECTRONICS LTD.

Jalahalli P.O., Bangalore-13.

At present BEL produces a wide range of electronic equipment and components which include a variety of transmitters, communication receiver and transreceivers for static and mobile roles using latest transmission/reception techniques. Measuring Instruments and Test Instruments like VTVM., Portable Oscilloscope, Harmonic Generator, Electro Cardiographs, Clinical Audio Meter, L.C.R. Bridge, Breakdown Tester, Transistorised Frequency Counter, RF Output Meter, Af Oscillator, etc.

Components like, Receiving Valves, Silicon and Germanium Transistors and Diodes, Piezo Electric Crystals, Mica and Ceramic Capacitors, Transmitting Tubes and X-Ray Tubes. Plans are also on hand to manufacture Monolithic Silicon Integrated Circuits, T.V. Picture Tubes and Microwave Tubes.

BEL's production during 1968-69 was Rs. 20·83 crores compared with Rs. 15·84 crores in 1967-68. Sales rose to Rs. 27 crores against Rs. 19·55 in 1967-68. The gross profit for 1968-69 was Rs. 4·34 crores prior to taxation compared with Rs. 3·81 crores.

The factory employs over 10,000 workers.

## BHARAT HEAVY ELECTRICALS LTD.

Regd. Office: 5, Parliament Street, New Delhi-1.

The company has under it the following four manufacturing units:—(1) Heavy Electrical Equipment Plant, Ranipur, near Hardwar (U.P.); (2) Heavy Power Equipment Plant, Ramachandrapuram, Hyderabad (A.P.); (3) Switchgear Unit, Ramachandrapuram, Hyderabad (A.P.); and (4) High Pressure Boiler Plant, Tiruverumbur, Tiruchirapalli (T.N.).

The Ranipur Unit is designed to produce  $1\cdot 5$  million kW of steam turbines and turbo-alternators,  $1\cdot 2$  million kW of hydro turbines and generators and  $0\cdot 5$  million kW of medium and large sized AC and DC motors.

The Ramachandrapuram Unit is designed to manufacture steam turbines, turbo-alternators and certain power station auxiliaries like condensate pumps, feed water pumps and circulating water pumps etc. The output capacity planned is about 0.8 million MW, comprising mainly unit sizes of 60 MW and 110 MW. This factory also manufactures turbo-blowers, turbo-compressors and backpressure turbines for industrial use.

The Switchgear Unit is designed to manufacture Air blast circuit breakers for transmission lines of 110 KV, 132 KV, 220 KV and 400 KV and also Minimum oil circuit breakers for 25 KV, 33 KV, 66 KV, 110 KV and 132 KV lines.

Tiruverumbur Unit manufactures high pressure boilers complete with mills, high pressure valves and fittings and other boiler house auxiliaries. The annual output in the first stage of development is sufficient to match a power generating capacity of 750 MW. This factory also manufactures package boilers for industrial use.

All the plants have gone into production and the power generating equipment is being manufactured for various important thermal and hydro power stations viz. Harduaganj, Ennore, Badarpur, Delhi, Kothagudem, Pathratu, Obra and Bhatinda thermal power stations and Giri Hydel, Chenani, Vaitarana, Bhatgar, Subernarekha, Yamuna Stage IV and Maneri Bali hydro electric projects.

#### BHARAT HEAVY PLATE AND VESSELS LTD.

Post Box No. 100, Visakhapatnam 1.

(Under the Ministry of Steel & Heavy Engineering, Department of Heavy Engineering).

The factory has gone into production of comparatively simpler items of equipment from April 1969 and is expected to go into substantial production by 1972.

The equipment proposed to be manufactured will include light, medium and heavy columns for absorption, distillation etc., tanks and pressure storage vessels, heat exchangers, pipe fabrication, vessels with agitators and mixers, technological structures etc.

#### BOKARO STEEL LTD.

Bokaro Steel City, Dt. Dhanbad (Bihar).

An agreement was signed on 25th January, 1965 between the Government of India and the Government of USSR for co-operation in the construction of an integrated iron and steel works at Bokaro.

Bokaro stage 1 is estimated to cost Rs. 671 crores.

The detailed Project Report for Bokaro had been prepared for a capacity of four million tonnes to be built in two stages — Stage I for the production of 1·7 million tonnes of ingot steel and 880,000 tonnes of foundry iron and Stage II for the production of four million tonnes of ingot steel. Stage I is being implemented now. A provision of Rs. 1,240 million has been made by Government in the Fourth Five Year Plan for execution of Stage II of the Plant.

## CHITTARANJAN LOCOMOTIVE WORKS

Head Office & Works: Chittaranjan, Dt. Burdwan, West Bengal.

Branch Office: 4, Chittaranjan Avenue, Calcutta-13.

Ownership & Control: Govt. of India, Ministry of Railways, Railway Board, New Delhi.

Products: Broad-Gauge steam and elec. locomotives and Diesel Shunters.

Upto the end of March 1969, 2,254 steam locomotives, 217 electric locomotives and 19 diesel shunters had been manufactured and delivered to the various zones of the Indian Railways. Under the Fourth Plan, production of steam locomotives will give way to electric and diesel production. Production in mid-1969 is running at the rate of 5 steam, 5 electric and 3 diesel shunting locomotives per month.

#### COCHIN REFINERIES LTD.

P. Bag 1751, Cochin-16.

Object: Refining of crude petroleum with a design capacity to refine 50,000 barrels of crude oil each stream day and with an excess built in capacity upto 70,000 barrels a day.

## DIESEL LOCOMOTIVE WORKS

Varanasi.

The Diesel Locomotive Works at Varanasi, is one of the three production units of the Indian Railways directly under the Railway Board manufacturing both broad gauge and metre gauge diesel electric locomotives.

Upto October 1969, the DLW has produced 278 BG and 20 MG locomotives. In addition, 21 diesel electric Shunters and 30 BO shunters have also been turned out.

The indigenous content on the last main line BG diesel electric locomotive turned out was 80 per cent.

### ELECTRONIC CORPORATION OF INDIA LTD.

3-5-822, Hyderguda, Hyderabad-1 (AP).

The Company is under the Department of Atomic Energy.

Main activities: To manufacture and sell electronic components and instruments and to fabricate and supply instrumentation and control equipment to various atomic power reactors and other nuclear plants. The important products of the Company are the various nuclear and allied instruments required for industrial, medical, agricultural and research purposes; carbon film and metal film resistors and tantalum capacitors, multi-turn potentio meters; semiconductor products like zener diodes, germanium power transistors, rectifiers, instrument cooling fans, thermo-electric cooling modules; glassto-metal seals and zone refined germanium crystals; servo control equipments and devices like synchros, motor drive assemblies, resistor temperature detectors, servo motors and manufacture of digital and analog computers for a wide variety of scientific application.

#### ENGINEERS INDIA LTD.

Allahabad Bank Bldg., 17-Parliament Street, New Delhi-1.

The company provides complete consultancy services such as techno-economic studies, process design, engineering procurement, construction supervision, etc. for the public and private sectors, especially in petroleum, petrochemical, chemical, fertilizer and allied fields. Port and Harbour work is also undertaken.

#### THE FERTILIZERS AND CHEMICALS, TRAVANCORE LTD.

Udyogamandal, Kerala.

The Fertilizers and Chemicals Travancore Limited, popularly known as FACT, produces ammonium sulphate and, a variety of other products like ammonium phosphate, superphosphate, ammonium chloride, sulphuric acid, anhydrous ammonia, liquid sulphur dioxide, ultrafos, sodium fluoride, calcium silicates, synthetic cryolite and dry ice.

The Company's factory at the Udyogamandal now has an annual production capacity of 70,000 tonnes of Nitrogen and 33,000 tonnes of  $P_2O_5$ .

At the end of the fourth stage expansion programme which is expected to be completed by 1970, the factory will have a capacity of 90,000 tonnes of nitrogen and 45,000 tonnes of  $P_2O_5$ .

The new expansion activity of the company is in the form of setting up another Rs. 450 million fertilizer factory at Cochin with an annual production capacity of 330,000 tonnes of urea. This unit was expected to go into production in the middle of 1970.

The company has built a wide network of distribution system in the States of Kerala, Tamil Nadu, Andhra Pradesh and Mysore.

#### FERTILIZER CORPORATION OF INDIA LTD.

F-43, South Extension, Part I, Ring Road, New Delhi-3.

(Under the Ministry of Petroleum and Chemicals).

The constituent units of the Corporation are the five operating fertilizer factories, namely, Sindri in Bihar, Nangal in Punjab, Trombay in Maharashtra, Gorakhpur in Uttar Pradesh and Namrup in Assam. They produce nitrogenous and phosphatic fertilizers.

Besides the five operating units there are two projects under implementation—Durgapur in West Bengal and Barauni in Bihar. After all the above projects are completed by 1971-72 FCI's production capacity for nitrogen will be over one million tonnes and  $P_2O_5 \cdot 1 \cdot 60$  lakh tonnes.

Nangal: During 1967-68 this unit produced 77,665 tonnes of nitrogen.

Sindri: The production of fertilizers during the year 1967-68 was 79,435 tonnes in terms of nitrogen.

**Trombay:** The production of fertilizers in terms of Urea was 68,508 tonnes (1968-69), Nitrophosphate 22,355 (1967-68) and Suphala 1,08,388 (1968-69). The  $N_2$  and  $P_2O_5$  during 1967-68 were 44,128 tonnes and 17,036 tonnes respectively.

Namrup: The Namrup factory is designed to produce 45,000 tonnes of Nitrogen per year in the form of 1,00,000 tonnes of Ammonium Sulphate and 55,000 tonnes of Urea. The Namrup Expansion Project is designed to produce 1,51,800 tonnes of nitrogen per annum in the form of 3,30,000 tonnes of Urea. It is expected to go into production in 1970-71.

Gorakhpur: The Gorakhpur factory is designed to produce 80,000 tonnes of Nitrogen in the form of 1,73,920 tonnes of Urea per year.

**Durgapur:** The Durgapur Fertilizer Project (1st Phase) is designed to produce 140,000 tonnes of nitrogen in the form of 305,000 tonnes of Urea per year. The factory is expected to go into production in 1970.

Barauni: The Barauni fertilizer factory has been designed to produce 151,800 tonnes of nitrogen in the form of 330,000 tonnes of Urea. It is expected to go into production in 1970-71.

#### GARDEN REACH WORKSHOPS LTD.

43/46, Garden Reach Road, Calcutta 24.

The Company has its main workshops at Garden Reach, and a branch unit at Baranagore, both in Calcutta.

The Company has 5 slipways and 2 dry docks. It is one of the major ship-building and ship-repairing yards in India and is fully equipped to undertake all types of marine repairs to sea-going vessels as well as inland and harbour crafts. It builds all types of inland and harbour crafts and the smaller coastal vessels, and is specialising in the building of dredgers.

Garden Reach Workshops Ltd. also manufactures electrical overhead travelling cranes, deepwell turbine pumps, marine haulages and conveyors, air compressors and diesel road rollers.

They are now building a Marine Diesel Engine Manufacturing Plant at Ranchi.

The company now employs over 6,000 men. It has a well organised training scheme for apprentices.

## HEAVY ELECTRICALS (INDIA) LTD.

(Piplani, Bhopal)

(Under the Ministry of Industrial Development and Company Affairs)

The factory manufactures the whole range of steam turbines, generators, condensers and feed heating equipment for thermal power stations, water turbines and generators for hydro power stations, butterfly valves for general hydraulic systems, power transformers and switchgear for sub-stations, electric traction equipment for freight and passenger trains, industrial rectifiers, power capacitors, motor controlgear and large A.C. & D.C. motor controlgear and large A.C. and D.C. motors for cement factories, rolling mills, mines and other applications.

Services: The factory offers general engineering services in respect of thermal power stations, expertise in sub-stations for 132 kV and 220 kV systems and also handles composite contracts in industrial and electrical drives for rolling mills.

The company offers consultancy services and is in a position to meet the requirements of all varieties of heavy electrical equipment.

Production: The production has increased from Rs. one crore in 1961-62 to Rs. 27.2 crores in 1968-69.

#### HEAVY ENGINEERING CORPORATION LTD.

Administrative Building, Plant Plaza Road, P.O. Dhurwa, Ranchi.

The Corporation is now engaged in establishing the following projects:—

1. Heavy Machine Building Plant at Ranchi in collaboration with U.S.S.R.; 2. Foundry Forge Plant and 3. Heavy Machine Tools Plant at Ranchi in collaboration with Czechoslovakia.

Heavy Machine Building Plant, Ranchi: The plant has a production capacity of 80,000 tonnes of machinery items and 25,000 tonnes of structural steel items per year.

The plant has produced over 23,852 tonnes of plant and equipment during 1968-69. HMBP has a programme of producing 27,000 tonnes during 1969-70.

Foundry Forge Plant: This plant will have the following production per year from its main production shops: Grey Iron Foundry (shaped castings) 33,345 tonnes; Steel Foundry (shaped castings) 40,182 tonnes; Non-Ferrous Foundry (castings) 700 tonnes: Forgings 50,000 tonnes; Grey Iron Steel and Forged Rolls 31,310 tonnes. The plant has produced 16,641 tonnes of heavy castings and forgings during 1968-69. FFP has a target of producing 45,384 tonnes of grey iron and steel castings and forgings during the financial year 1969-70.

Heavy Machine Tools Plant, Ranchi: This plant will have an annual production capacity of 10,000 tons of certain diverse items of heavy machine tools.

The plant has gone into production of items like Radial Drilling Machines, Central Lathes, Double Column Planning Machines etc.

Training Programme: At Ranchi, the Corporation has set up a Central Training Institute, complete with workshop facilities, including foundry and smithy shop to provide training to workmen, supervisory staff and engineers.

#### HEAVY VEHICLES FACTORY

Avadi, Madras 54.

The Heavy Vehicles Factory is designed as an integrated unit for the manufacture of all major assemblies of the tank including the engines, gear box and the suspension units. The first Vijayanta medium tank produced in this factory rolled out on 29-12-65 as scheduled and since then, regular production of tanks has been established. The planning of the factory has been done in a manner that manufacturing capacity is available not only for the manufacture of tracked vehicles but also for other items of heavy engineering required for military as well as civilian purposes.

The employment potential of the factory is of the order of 5,000. The factory has afforded considerable fillip to the ancillary industries in India.

#### HINDUSTAN AERONAUTICS LTD.

(Bangalore Division)

(Hindustan Aircraft P.O., Bangalore 17, Mysore) Tel. & Cable address: "Aircraft", Bangalore.

Hindustan Aeronautics Ltd., is a combination of Hindustan Aircraft Ltd., and Aeronautics India Ltd.— a Company formed to undertake the MIG manufacturing projects at Koraput, Nasik and Hyderabad and also manages the Aircraft Manufacturing Depot, Kanpur.

This factory manufactures the following aircraft, HT-2 the All-Metal Basic Trainer Aircraft, Vampire Jet Aircraft, Gnat, HF-24 a supersonic fighter aircraft, Pushpak an ultra-light two-seater aircraft, Krishak a light four seater aircraft, Basic Jet Trainer HJT-16 a single engined aircraft for basic pilot training, HS-748 aircraft and HJE-2500 a turbo-jet engine for the Basic Jet Trainer aircraft. The first phase of producing helicopters has commenced.

Other Development Work: Other development work includes the design of a Pneumatic Starter for the starting of turbo-jet engines of 5,000/10,000 lbs. thrust

range and installation of the Orpheus 701 engines as an auxiliary jet pack for the Fairchild Packet aircraft for high altitude flying.

#### HINDUSTAN ANTIBIOTICS LIMITED

(Pimpri, Poona-18)

(Under the Ministry of Petroleum and Chemicals).

Produces antibiotics like penicillin, streptomycin, hamycin etc. The present capacity of production of penicillin is about 84 m.m.u.

The Streptomycin plant is of 80 tons capacity.

Another important development is the discovery of antifungal antibiotic hamyoin and other new antibiotics useful in plant disease control and veterinary practice by the Research Division of the company.

#### HINDUSTAN CABLES LTD.

(P.O. Hindustan Cables, Rupnarainpur Rly. Station), Burdwan Dt., West Bengal.

The company produces dry core distribution cables, coaxial cables and plastic group of cables and wires.

During 1967-68, the factory produced 6.43 lacs conductor Kms. of dry core distribution cables, 2,317 tube Kms. of 2 core and 4 core of large tube and small tube coaxial cables and 27,888 core Kms. of plastic group of cables. In terms of value the production was to the tune of Rs. 9.11 crores.

#### HINDUSTAN COIR

Kalavoor P.O., Alleppey Dist.

It is the powerloom factory under the Coir Beard (Govt. of India) for the production of coir mattings—first of its kind under public sector. Started production for commercial sale on 1-1-1969. Best quality coir mattings in attractive designs are being produced in the factory.

#### HINDUSTAN COPPER LIMITED

Under the Ministry of Petroleum & Chemicals and Mines & Metals (Department of Mines & Metals).

Regd. Office: P.O. Khetri Nagar, Dist.: Jhunjhunu (Rajasthan).

Object: To give concentrated attention to the development and production of copper and other base metals in the country. HCL tool over the following projects and feasibility areas from the National Mineral Development Corporation Ltd.: Khetri Copper Project, Rajasthan, Rakha Copper Project, Bihar, Agnigundala Copper-Lead Project (a feasibility study), Andhra Pradesh, and Daribo Copper Project (a project in exploratory stage), Rajasthan.

The company has also been assigned Sukinda Nickel deposits in Orissa.

Khetri Copper Project:—Is under construction and is estimated to cost Rs. 87.97 crores. The project envisages:
(i) A mine and plant for the production of 31,000 tonnes of copper metal of electrolytic grade per annum;
(ii) A plant for the production of about 600 tonnes of sulphuric acid per day from the smelter gases;
(iii) A plant for the production of fertilizer using the sulphuric acid produced at Khetri.

Some quantity of gold and silver would also be obtained as by-products in  $_{\rm d}$ the electrolytic plant.

A production of 2,000 tonnes of ore was programmed to commence from January, 1970.

Rakha Copper Project:—Located in District Singhbhum of Bihar, comprises three blocks (1) Rakha Mine Block; (2) Roam Sideshwar; and (3) Tama Pahar. Government has approved a scheme for developing Rakha Copper Project Phase I for the production of 1,000 tonnes of ore per day which will yield 3,500 tonnes of copper metal per annum.

Agnigundala lead-copper Project:—The Agnigundala copper and lead mineral belt located in Andhra Pradesh has three areas of mineralization viz. (a) Bandalamottu (lead-copper) deposits; (b) Nallakonda (copper) deposits; and (c) Dhukonda (copper-lead) deposits. A feasibility scheme for developing one of these areas namely, Bandalamottu Block has been prepared by the Company and is at present under consideration of the Government.

HCL at present employs about, 4,000 persons.

#### HINDUSTAN HOUSING FACTORY LIMITED

(Jangpura, New Delhi 14)

(Under the Ministry of Health, Family Planning, Works, Housing and Urban Development)

Main products of the Hindustan Housing Factory are as under:—

Prefabricated components for multistoreyed buildings; Prestressed concrete transmission line poles; Prestressed concrete street light poles; P.C.C. Beams for industrial sheds with sheeted roofs; P.C. assembled trusses for industrial sheds; P.C. Beams for composite constructions; Roofing and flooring components with prestressed concrete beams; Precast R.C.C. cladding panels; Precast prestressed units for fencing posts; R.C.C. door and window frames; Hollow blocks for roofing; Hollow blocks for walling; Overhead concrete tanks for residential uses; Large panels for large panel house construction; Precast concrete flooring slabs; Prestressed concrete railway sleepers; R.C.C. railway sleepers; Precast vibrated pipes for drains; Precast vibrated Porous Pipes; Reinforced foam concrete panels; Foam concrete blocks for cold storage and air-conditioned buildings; Foam concrete blocks for multistoreyed buildings; Machine-made doors and window frames and shutters; Flush doors; Seasoning and chemical treatment of timber.

Production during 1968-69 was Rs. 193-13 lakhs.

## HINDUSTAN INSECTICIDES LIMITED

Regd. Office: C-255, Defence Colony, New Delhi-3.

Hindustan Insecticides Ltd., has factories at Delhi and Alwaye in Kerala State for manufacture of DDT, and has installed additional plants for manufacture of DDT and BHC.

The combined output of both the factories during the year 1968-69, of Tech-DDT, the primary product, was 2,976-31 tonnes against the rated capacity of 2,688 tonnes. Bye-products like hydrochloric acid, sulphuric acid, chloral hydrate, ethyl chloride, para and ortho dichlorobenzine were also produced during the year.

Expansion schemes:—At Delhi the 1,400 tonnes per annum plant went on stream in June 1969. The BHC project at Alwaye for the manufacture of 3,000 tonnes BHC per annum has also made substantial progress.

New Projects:—The Company has been authorised by the Govt. for setting up a 5,000 tonnes DDT Plant and the work relating to it is in progress. The Company proposes to set up a DDT Formulation Unit of 7,000 tonnes per annum capacity at Rasayani in Maharashtra.

## HINDUSTAN LATEX LIMITED

Nirodh Project, Peroorkada, Trivandrum 5. Registered Office: Room No. 243, Nirmal Bhavan, Maulana Azad Road, New Delhi.

(Under the Ministry of Health and Family Planning). The Company set up with Japanese Collaborators, manufactures 3,000 gross of Nirodh (Rubber condoms) per day.

## HINDUSTAN MACHINE TOOLS LIMITED

(H.M.T. P.O., Bangalore 31).

(Under the Ministry of Industrial Development and Company Affairs, Govt. of India).

This is located in Jalahalli, Bangalore, with five machine tool factories at: (I & II) Bangalore in Mysore; (III) Pinjore in Haryana; (IV) Kalamassery in Kerala and (V) Hyderabad in Andhra Pradesh and one watch factory in Bangalore.

The factory produces a wide range of machine tools like Milling Machines, Radial Drilling Machines, General Purpose Lathes, Turret Lathes, Grinding Machines, Special Purpose Machines, all Electric Heavy Duty Programme Controlled Milling Machines, Gear Shapers, Gear Hobbers, Single Spindle Automatics, Surface Grinders, Pilote Copying Lathes, "Fay" Automatics, Multi-Spindle Bar and Chucking Automatics, Drum Turret Lathes, Horizontal Boring Machines, Heavy Duty Centre-Lathes, Precision Lathes, Turret Type Milling Machines and Multi-Tool Lathes.

The Company employs 12,682 skilled and semi-skilled workers (in all its factories).

Till the end of March 1969, the factory turned out 18,323 machines valued at Rs. 87.30 crores.

Production during 1968-69 by the various factories at: Bangalore in Mysore: 969 machines valued at Rs. 509 lakhs; Pinjore in Haryana: 452 machines valued at Rs. 258 lakhs; Kalamassery in Kerala: 322 machines valued at Rs. 179 lakhs; Hyderabad in Andhra Pradesh: 41 machines valued at Rs. 153 lakhs.

#### Export

During 1968-69 HMT exported machines valued at Rs. 97 lakhs as against Rs. 29 · 28 lakhs in 1967-68. HMT has opened sales-cum-service centres in New York, Frankfurt, Melbourne and Los Angeles and few more are likely to to be opened in the near future.

#### New Designs

HMT has designed and developed six new machines namely (G9) Cylindrical Grinding Machine, (GT) Tool Grinding and Lapping Machine, (G. 13) Cylindrical Grinding Machine, (L. 45) Heavy Duty Lathe, (FB) Fine Boring Machine, and (Chucker) Short Piece Turning Machine. HMT has been continuously striving to develop the existing machine tools and to design new ones. A prototype hydraulic chucker has been designed and built by the company. Prototype of heavy duty multi-spindle drilling machine, designed and built by HMT is under testing. Prototype of AZ9 Horizontal Boring Machine, built in collaboration with Messrs. Pegard of Belgium is also under testing.

## Watch Factory

The HMT Watch Factory in Bangalore, turned out 3,00,000 watches during 1968-69 against 2.5 lakh watches in 1967-68. It currently produces nine types of watches—six varieties of Gents' watches, viz., Citizen, Janata, Janata Luminous, Pilot, Sona and Tareeq; two varieties of Ladies' watches, viz., Sujata and Nutan and Tarun for Students.

During the Fourth Plan period, the Company plans to expand the watch factory in Bangalore, raising its production capacity from 3.6 lakhs to 5 lakh watches per annum.

Upto end of March 1969, over 2,700 watches have been exported. The factory sold 3.02 lakh watches in 1968-69 against 2.46 lakh watches in 1967-68.

## HINDUSTAN ORGANIC CHEMICALS LTD.

P.O. Rasayani, Dist. Kolaba, Maharashtra. (Under the Ministry of Petroleum, Chemicals, Mines and Metals)

The company's production programme includes a number of organic intermediates like Benzene Hexachloride, Chlorobenzene, Formaldehyde, Aniline, Meta-Amino-Phenol, Acetanilide and a range of Nitro Compounds based on Benzene and Toluene. The manufacture of Sulphuric Acid/Oleum and Hydrogen is also envisaged.

## HINDUSTAN PHOTO FILMS MFG. CO. LTD.

Indu Nagar, Ootacamund.

The factory manufactures various types of sensitized photographic materials.

When the factory goes into full production, it is expected to turn out annually 6.15 million sq. m. of photographic film and photographic paper. As an adjunct to the main plant, a Silver Nitrate Plant for producing Silver Nitrate, a Silver Sludge Recovery plant for recovery of silver from factory wastes, and a unit for synthesizing organic chemicals, have also been set up.

The value of sales during the year 1968-69 was Rs. 2·29 crores. The factory has already established production of Cine Film Positive (Black and White), Medical X-ray Film, Bromide Paper, Cine Film Sound and Roll Film. 35 mm. Negative Film, Portrait Film and Document Copying Paper are the additional items that were being taken up for manufacture during 1969-70.

## HINDUSTAN SALTS LTD.

Badnor House, Bhagwan Das Road, P. Box No. 146, Jaipur.

(Under the Ministry of Industrial Development, Internal Trade & Company Affairs)

The salt source at Kharaghoda (Gujarat) and the salt mines at Mandi (Himachal Pradesh) are under the administrative control of the Company.

Production during the fiscal year ending 30th September, 1969, are as follows:-

Common Salt 98,002 M. Tonnes; Rock and Pan Salt 3,371 M. Tonnes.

The Sambhar Salts Ltd., a subsidiary of Hindustan Salts Ltd., produced 72,000 M. tonnes of salt during the fiscal year ending September 1969. In addition to common salt, the Company produced 224 M. Tonnes of dairy salt, 36 M. Tonnes of table salt, 85 M. Tonnes of Sodium Sulphate and 245 M. tonnes of Burkeite during the year ending September, 1969.

## HINDUSTAN SHIPYARD LIMITED

(Visakhapatnam 5, Andhra Pradesh) (Under the Ministry of Transport and Shipping)

The shipyard has four building berths with a capacity of 15,000 DWT each, besides a fifth berth for the construction of minor craft. The capacity of the dry dock now under construction will be 57,000 DWT.

Hindustan Shipyard has so far built 49 ships of different sizes and types aggregating more than 4,12,900 DWT.

The second shippard would be located in Cochin.

#### HINDUSTAN STEEL LIMITED

P. O. Hinoo, Ranchi.

(Under the Ministry of Steel, Mines and Metals)

Hindustan Steel Ltd. has four steel plants the Rourkela Steel Plant, Bhilai Steel Plant, Durgapur Steel Plant and Alloy Steels Plant. Production in January 1970: pig-iron 380,000 tonnes, ingot steel 315,000 tonnes and saleable steel 221,300 tonnes. Despatches amounted to 108,000 tonnes of pig-iron and 245,000 tonnes of saleable steel.

Hindustan Steel has on its rolls 1,19,234 employees.

#### PRODUCTION

During the year 1968-69 Hindustan Steel's production of important items is given below:-

(In thousand tonnes)

Product		Bhilai	Durgapur	Rourkela	HSL	Alloy Steels
Pig iron		 1,935	1,148	1,243	4,326	
Pig iron for sale		 591	375	147	1,113	
Steel ingots		 1,735	823	1,162	3,720	39.8
Saleable steel		1,344	500	773	2,617	23.8*
C.A.N				236	236	

<sup>•</sup> Out of this 3.5 is forged bars and billets, 9.8 billet mill products, 9.6 bar mill products, and 0.8 sheet mill products.

#### Rourkela Steel Plant

Rourkela lies 413 kilometres west of Calcutta, on the South-Eastern Railway line between Calcutta and Bombay. Almost all the expansion units of Rourkela Steel Plant have been commissioned. At the 1·8 million tonne stage, the plant is rated to produce 280,000 tonnes of wide and heavy plates, 284,000 tonnes of H.R. sheets, narrow light plates and coils, 260,000 tonnes of C.R. sheets, 50,000 tonnes of hot dipped tin plates, 150,000 tonnes of electrolytic tin plates, 160,000 tonnes of galvanized sheets and 50,000 tonnes of electrical steel sheets. It produces high silicon steel sheets and ERW pipes including Line-pipe and High test Line-pipe carrying the API monogram. Its fertilizer plant is rated to produce 580,000 tonnes of Calcium Ammonium Nitrate annually.

Bhilai Steel Plant is located on the main railway line between Calcutta and Bombay, 260 kilometres east of Nagpur. At its present 2.5 million tonne stage Bhilai is rated to produce 315,000 tonnes of blooms and billets for sale, 500,000 tonnes of merchant products, 250,000 tonnes of heavy structurals and crossing sleepers, 500,000 tonnes of heavy rails and 400,000 tonnes of wire rods, besides 327,000 tonnes of pig iron for sale.

Further expansion of Bhilai to 4.2 million tonnes is phased in two stages, the first stage of Sixth blast furnace complex being already under construction. The plant's coke consumption has been reduced to 767 dry kgs. per tonne of hot metal. Bhilai has one of the largest rail mills in the world and manufactures 80 per cent of heavy structurals made in India. It has also the most modern wire rod mill with capacity of 400,000 tonnes of wire rods.

## **Durgapur Steel Plant**

Durgapur is closest to Calcutta and lies on the main line of the Eastern Railway between Calcutta and Delhi. Durgapur Steel Plant has its own coal washery. The plant has been expanded to produce 1.6 million tonnes of ingot steel. Durgapur Steel Plant provides light structurals and construction materials. The new skelp mill rolls out flat sheets in coils for the tube industry. The plant make pig iron for foundries and billets for re-rollers and has by-products units processing crude tar, ammonium sulphate and crude benzol from the coke oven gas. At its 1.6 million tonne stage Durgapur Steel Plant is rated to produce 370,000 tonnes of forged blooms and billets, 240,000 tonnes of merchant sections, 200,000 tonnes of light and medium sections, 75,000 tonnes of pressed steel sleepers, 93,000

tonnes of wheels and axles and 250,000 tonnes of skelp besides 300,000 tonnes of pig iron for sale.

Alloy Steels Plant at Durgapur is rated to produce 2,250 tonnes of high speed steels, 3,600 tonnes of alloy, tool and die steels, 9,500 tonnes of carbon tool steels, 26,650 tonnes of constructional steels and 18,000 tonnes of stainless steels. After the expansion the plant will produce 300,000 tonnes.

#### Coal Washeries

The Company has four coal washeries at Dugda, Bhojudih and Paterdih. Dugda is 30 miles and Paterdih 10 miles from Dhanbad in Bihar. Bhojudih in West Bengal is about 20 miles from Dhanbad. The Dugda I washery had a capacity of 2·4 million tonnes of raw coal input per year, Bhojudih two million tonnes of raw coal input and Paterdih two million tonnes of raw coal. These coal washeries supply washed coal to Bhilai and Rourkela Steel Plants and also to TISCO and IISCO steel plants.

Central Engineering & Design Bureau functions as technical advisors to the Government of India and Hindustan Steel on matters connected with steel industry. In this capacity it has been assisting the Ministry of Steel & Heavy Engineering in the formulation of plans for the expansion of Bokaro Steel Plant from 1·7 to 4·00 million tonnes capacity during the Fourth Five-Year Plan. The CEDB has also been engaged in the location studies in connection with the setting up of new steel plants during the Fourth and Fifth Five Year Plans.

The CEDB has 400 engineers and 200 other supporting technical staff.

#### Sales

Gross sales amounted to Rs. 3,271·60 million during 1968-69 as against Rs. 2,573·30 million in 1967-68. Stockyard sales increased from 1,73,000 tonnes in 1967-68 to 3,40,000 tonnes in 1968-69. Distributors were appointed for the company's fertilizer, Sona, in Andhra Pradesh, Orissa, Assam, West Bengal, Bihar and Uttar Pradesh and regional offices were established at Secunderabad, Vijayawada, Cuttack, Varanasi and Kanpur and a programme of educating the farmers, dealers, block development officers regarding the use of fertilizers was started.

During the year Hindustan Steel earned Rs. 415.5 million through exports as against Rs. 309.6 million in 1967-68. The highlights of exports were: 5,65,700 tonnes of pig iron exported to Japan and 25,300 tonnes to South

Korea. Two contracts were finalised for supply of 93,000 tonnes of rails to the Iran State Railways. The export of I,38,000 tonnes API pipes from Rourkela to New Zealand was successfully completed during the year. The contract with the USSR for supply, during 1968, of 2,00,000 tonnes of steel materials consisting of angles, beams and channels was completed. A similar contract for supplies during 1969 was signed.

Hindustan Steel has branch sales offices and stockyards in Calcutta, Delhi, Bombay, Madras, Cochin, Bangalore, Ahmedabad, Secunderabad, Kanpur, Jullundur, Indore, Dhanbad, Cuttack, Gauhati and Visakhapatnam. Hindustan Steel has a branch office at Apollo House, 58, New Bonds Street, London W-1.

#### THE HINDUSTAN TELEPRINTERS LTD.

Guindy, Madras-32.

The factory manufactures tape and page models of teleprinters, printing reperforator attachment, transmitter attachment, independent automatic tape transmitter and Devnagari teleprinters. It produced 5,010 unit machines in the year 1968-69.

#### HINDUSTAN ZINC LIMITED

(Under the Ministry of Petroleum & Chemicals and Mines and Metals)

11/221, Hospital Road, Udaipur (Rajasthan).

The units administered by this Company are: (i) the Zawar Mines. At present the mine produces about 700 tonnes of ore containing both lead and zinc. The ore is processed in a mill to produce 5,000 M.T. of lead concentrates and 10,000 tonnes of zinc concentrates annually. (ii) Tundoo Lead Smelter near Katrasgarh, Dhanbad with a capacity to produce 500 M.T. of pig lead per month. The lead concentrates from Zawar Mines are smelted here to produce pig lead of 99·99 per cent purity. A little quantity of silver is recovered as by-product. (iii) An electrolytic Zinc Smelter has been commissioned at Debari. The Zinc Smelter has been designed to produce 18,000 tonnes of zinc metal, about 29,000 tonnes of sulphuric acid to be converted into 80,000 tonnes of single superphosphate fertilizer and 70 to 75 tonnes of cadmium to be recovered as by-product annually.

#### INDIA GOVERNMENT SILVER REFINERY

(Ministry of Finance, Dept. of Economic Affairs) 47, Strand Road, Calcutta 7.

This refinery has been installed for the extraction of silver and copper from the Q.A. coins minted during the World War II. Nickel Sulphate and Nickel Silver (an alloy of Cu, Ni, and Zn) are obtained as by-products. The refinery employs 497 persons.

## THE INDIAN DRUGS AND PHARMACEUTICALS LTD.

N-12 & 13, South Extension (Part I), Ring Road, New Delhi-3.

(Under the Ministry of Petroleum and Chemicals)

The Indian Drugs & Pharmaceuticals Ltd. has been set up for the manufacture of and trading in drugs, antibiotics surgical instruments and appliances. It has three plants under its control, Antibiotics Plant at Rishikesh, Synthetic Drugs Plant at Hyderabad and Surgical Instruments Plant at Madras. The plants have been set-up with the help of the Government of U.S.S.R. The company and plants have 6,500 employees.

Antibiotics Plant at Rishikesh (Uttar Pradesh) has been set up to produce penicillins (sodium & procaine salt), streptomycin, tetracycline, oxytetracycline, chlortetracycline and nystatin at an estimated cost of Rs. 25 crores. It is already in the market with its products,

The Synthetic Drugs Plant at Hyderabad set up at a cost of Rs. 23 crores synthesises about 826 tonnes of 15 types of drugs starting from basic stages. It serves the prime needs of the country with regard to synthetic drugs.

Surgical Instruments Plant, Madras: The plant manufactures various types of surgical instruments of high quality and is a pioneer in serving the needs of surgical instruments for family planning programmes in the country.

#### INDIAN OIL CORPORATION LIMITED

Regd. Office: 254-C, Dr. Annie Besant Road, Prabhadevi, Bombay-25 DD.

The Indian Oil Corporation comprises two divisions viz. Refineries Division and Marketing Division.

Refineries & Pipelines Division, (Indiancil Bhavan, Janpath, New Delhi) is responsible for the management of the three public sector Refineries at Gauhati in Assam, Barauni in Bihar and Jawaharnagar in Gujarat. Another refinery is under construction at Haldia near Calcutta. Also manages Gauhati-Siliguri, Haldia-Barauni-Kanpur and Jawaharnagar-Ahmedabad Pipelines.

Marketing Division with its headquarters in Bombay is responsible for distribution of petroleum products produced by three refineries of Indianoil and two other public sector refineries at Cochin and Madras.

#### INDIAN PETROCHEMICAL CORPORATION LIMITED

P.O. Jawahar Nagar, Dist. Baroda (Gujarat)

Corporation's first Petrochemicals operations near Baroda will consist of the Gujarat Aromatics Project—site-work for which is already in progress—and the Gujarat Olefins Project. The above two projects will be located adjacent to the Gujarat Refinery, and will provide basic materials for the manufacture of large number of consumer products. The aromatics project will produce 21,000 tonnes per annum of dimethyl terephthalate and 2,500 tonnes per annum of mixed nylenes. The Olefins project will produce ethylene, propylene, benzene and butadiene.

The Corporation's authorised capital is Rs. 30 crores.

#### INDIAN RARE EARTHS LIMITED

Pil Court, 111, Maharshi Karve Road, Bombay 20.

This Company functions under the administrative control of the Department of Atomic Energy.

- (1) The Rare Earths Division of the Company at Alwaye has a capacity to process 3,600 tonnes of Monazite per annum. Rare Earths Chloride, Trisodium Phosphate, Cerium Oxide, Cerium Nitrate, Rare Earths Fluoride, Rare Earths Oxide and Lanthanum Nitrate are produced in this Division. Lanthanum Oxide, Cerium Hydrate, Didymium Carbonate, Ceric Ammonium Sulphate, Ceric Ammonium Nitrate, Ceric Acetate, Ceric Oxalate, Praseodymium Oxide, Praseodymium Concentrates and Cerium Naphthenate are also produced in small quantities.
- (2) The Minerals Division of the Company with its office at Quilon, Kerala, and factories at Manavalakurichi and Chavara produces large quantities of Ilmenite, Rutile, Zircon, Monazite, Sillimanite, Leucoxene and Garnet from beach sands. Zirconium salts are also produced at Manavalakurichi (Tamil Nadu). Tirconium Opacifier in various mesh-sizes will also be available from a plant being set up at Chavara (Kerala State).

(3) The Company also operates the Thorium Plant of the Government of India at Bombay where thorium compounds are manufactured from thorium hydroxide obtained at the Alwaye Plant. Thorium Nitrate and Thorium Oxide are the more important chemicals made in this plant.

#### INDIAN TELEPHONE INDUSTRIES LIMITED

(Under the administration and jurisdiction of Dept. of Communications, Govt. of India).

(Dooravani Nagar, Bangalore 16, Mysore State)

Regional Offices, Sales & Service: 62/63, "Advent", 12-A, Foreshore Road, Bombay 1; 22, Chittaranjan Avenue, United India Life Assurance Bldgs., Calcutta 13; 12-B, Netaji Subbash Marg, Daryaganj, Delhi 6; Agurchand Mansions, No. 35, Mount Road, Madras 2.

The factory manufactures all kinds of telecommunication equipment, all kinds of telephones, transmission equipment, testing equipment, automatic road signalling equipment, etc.

The turnover of the company for the year 1968-69 increased to Rs. 21·2 crores from Rs. 20·3 crores in the previous year. Sales to the Posts & Telegraphs Department constituted 81 per cent of the turnover amounting to Rs. 16·73 crores.

The net profit for the year 1968-69 was Rs. 172 lakhs as compared to Rs. 154 lakhs in the previous year.

#### Production

Transmission Division: The production of long distance electronic transmission equipment was Rs. 4·51 erores, an increase of about Rs. one crore over the previous year. Production included a number of 960 channels of coaxial equipment, microwave equipment, and a new type of coaxial system of 300 channel capacity capable of expansion to 600 channels for three main routes.

The manufacture of switching equipment for the Indian Earth Station for Satellite Communication is in progress. Transmission equipment required for the ASCOM Project for establishment of a satellite station were supplied during the year.

Strowger & Telephones Division: The value of Strowger automatic exchanges and telephones produced reached Rs. 1,169 lakhs as against Rs. 1,106 lakhs during the previous year. The number of Telephone Instruments of all types produced was 2,57,145 as against 2,32,282 in the previous year.

Crossbar Division: The value of production of Crossbar Division amounted to Rs. 408 lakhs. The manufacture of switching equipment for the Indian Earth Station System (ASCOM) is in progress.

Electronic Measuring Instruments Division: The Instruments Division designed, developed and produced measuring instruments of various types, power supply units and battery chargers. The value of sales was Rs. 43 lakhs as compared to Rs. 45 lakhs in the previous year.

#### Research & Development

The design and development of an electronic exchange, pulse code modulation equipment, computer-controlled trunk exchange and automatic error correcting equipment, multiplexing equipment for the Railways are also under design and development. The main effort has been to develop equipment for increasing traffic carrying capacity of the main trunk routes which now comprise large tube and small tube coaxial cable systems.

New Telephone Instruments: During the year, three new types of telephones were developed. The manufacture of one of the types has been undertaken.

Import Substitution: Intensive drive in the field of import substitution has resulted in an annual saving of Rs. 71·25 lakhs recurring during the year 1968-69 as compared to Rs. 56·59 lakhs during the previous year. The total recurring foreign exchange saving during the last four years amounted to Rs. 2·27 crores.

The savings that accrued by methods improvement amounted to over Rs. 4 lakhs.

Exports: The total value of the exports during the year exceeded Rs. 72 lakhs as compared to Rs. 52 lakhs in the previous year.

#### Ancillary Units

The total production of ancillary units set up under its guidance amounted to Rs. 8 lakhs during 1968-69.

#### INSTRUMENTATION LTD.

(Ministry of Industrial Development & Co. Affairs.) Kota 5 (Rajasthan)

The company produces industrial process control instruments comprising a variety of transmitters, indicating and controlling pyrometers, single and multi-point electronic recorders for measurement of temperature, pressure, flow, level and other process variables.

The company also provides complete turn key service for thermal power stations, steel plants, fertilizer plants and other process industries.

#### INTEGRAL COACH FACTORY

Perambur, Madras 38.

(Under the Ministry of Railways)

The factory consisting of two divisions, Shell & Furnishing, meets over 50 per cent of the requirements of passenger coaches of the Indian Railways. During 1968-69, 640 shells and 635 coaches were manufactured, consisting of 15 types.

The factory manufactures all steel, light weight, fully welded integral coaches.

Up to the end of March 1969, 6,724 shells have been turned out and 4,750 coaches have been furnished. The factory produces diesel railcars, air-conditioned coaches and electrical multiple units in addition to conventional Broad and Metre Gauge Third Class, Second Class and First Class coaches. The annual turn-over is approximately Rs. 15 crores. The total number of employees on rolls is 10,700.

The factory is also currently executing export orders for 45 M.G. bogies to Thailand and 100—1067 mm bogies to Taiwan.

#### JANPATH HOTELS LIMITED

New Delhi.

The company manages three hotels in Delhi viz., Hotel Janpath, Hotel Ranjit and Lodhi Hotel with a room capacity of 212, 208 and 225 respectively.

## JAYANTI SHIPPING COMPANY LTD.

Regd. Office: Rehem Mansion No. 1, 42, Colaba Causeway, Bombay-1.

Mg. Agents: The Shipping Corporation of India Ltd., Steelcrete House, 4th floor, Dinshaw Wacha Road, Bombay-20 BR.

Agents: Throughout the world.

#### Jayanti Fleet

Tankers (in DWT): Adi Jayanti 33,099, Vikram Jayanti 57,588; Cargo Ships (in DWT): Ashoka Jayanti 10,030, Gandhi Jayanti 10,920, Krishna Jayanti 11,050, Laxmi Jayanti 10,050, Rama Jayanti 10,960; Bulk Carriers (in DWT): Bharata Jayanti 36,496, Gotama Jayanti 36,416, Akbar Jayanti 36,471, Chandragupta Jayanti 36,504, Shahjehan Jayanti 36,478, Kanishka Jayanti 36,528, Devaraya Jayanti 36,491, Samudragupta Jayanti 36,464. Combined Oil/Ore Carriers (in DWT): Bhaskara Jayanti 21,594, Leelavati Jayanti 21,615, Chanakya Jayanti 21,594.

Total (DWT): 5,00,348 LT.

## KOLAR GOLD MINING UNDERTAKINGS

Kolar Gold Fields, Oorgaum P.O., Mysore State.

Is now under the administrative control of the Department of Economic Affairs, Ministry of Finance, Government of India. The mines working at present are: Mysore/Champion Reef Amalgamated Mine and Nundydroog Mine.

No. of workmen as on 31-3-1969: 13,280.

The gold production during 1968-69 was 26,37,505 grammes worth Rs. 2,23,30,161 (Rounded off to Rs. 223·30 lakhs).

## LUBRIZOL INDIA LIMITED

Delstar, 9A, Hughes Road, Bombay-26.

Lubrizol India Limited is a Government Co. set up in collaboration with Lubrizol Corporation of U.S.A., Government of India holding 51 per cent shares and the collaborators 49 per cent shares. A plant has been set up at Thana-Belapur Road near Bombay for the manufacture of chemical additives for petroleum products. Production commenced in November 1968 and the company has since been meeting the entire requirements of the oil companies for additives which were hitherto being imported in toto.

Sales during 1968-69 (5 months): Rs. 107 lakhs; Net Profit during 1968-69: Rs. 11 lakhs.

## MACHINE-TOOL PROTOTYPE FACTORY, Ambernath

(Under the Ministry of Defence)

## MAZAGON DOCK LIMITED

Mazagon, Bombay 10.

(Under the Ministry of Defence)

A ship-building, ship-repair and general engineering concern.

The company can build various types of ships—like frigates, passenger ships, passenger-cum-cargo ships, dredgers, tugs, barges, trawlers, etc.—up to 145 metres length, 24 m. breadth and 15,000 tons DWT. It has four building berths, three dry docks and an impounded wet dock.

Two anti-aircraft, anti-submarine Leander Class frigates for the Navy—INS Nilgiri & INS Himgiri—have been launched. Construction has started on a third frigate. The company has also built for the Navy a bucket dredger, two inshore minesweepers, two Avcat tankers (designed to carry aviation fuel) and several other ships.

Leader of the West Coast Consortium of shipbuilders, Mazagon Dock has delivered 12 fishing trawlers to the Union Government and various State Governments.

Mazagon Dock is fully equipped to carry out repairs to all kinds of ships. The company, which maintains a round-the-clock, seven-day-a-week repair service, can take up for repairs over 60 ships per month and earns about Rs. 140

lakhs every year in foreign exchange by carrying out repairs to foreign ships.

Mazagon Dock's general engineering section can undertake a variety of heavy engineering work such as manufacture of large pressure vessels, precision machining, radiograph quality welding, overhauling of steam, diesel and petrol engines etc. It is also capable of manufacturing port, dock and shipbuilding cranes. A 80-ton fixed lift crane and a 15-ton level luffing crane were recently manufactured by the company, for the first time in India, in collaboration with DEMAG of West Germany.

The company's production turn-over rose from Rs. 10·71 crores in 1968–69 to Rs. 13·10 crores in 1969–70.

## MODERN BAKERIES (INDIA) LIMITED

Registered Office: Mahajan House, 1st Floor, E 1 & 2, N.D.S.E. Part II, Ring Road, New Delhi 49.

The company has six automatic bakeries at Ahmedabad, Bombay, Cochin, Delhi, Hyderabad and Madras. The capacity of each unit is 35,000 leaves of 400 gms. per day except that of Bombay where the rated capacity is 70,000 leaves per day. All the units have gone into production. The company is setting up similar units at Bangalore, Calcutta and Kanpur.

#### THE MOGUL LINE LTD.

16, Bank Street, Bombay 1.

Pilgrim Booking Office: Nos. 4 & 5, Mahomed Haji Saboo Siddick Musafirkhana, Carnac Road, Bombay 1.

Operates Haj Pilgrim service between Bombay and Jeddah, regular cargo-cum-passenger service between Bombay and Red Sea ports and regular coastal service for transport of coal, salt, cement etc.

#### NAHAN FOUNDRY LTD.

(Nahan, Sirmur District, Himachal Pradesh).

Production consists of improved type of sugar cane crushers, bullock as well as power driven, mono-block pumps, electric motors from ‡ H.P. to 15 H.P. of ISI, improved types of ploughs, cornsheller machines; harrows; and other agricultural implements. The foundry undertakes quality casting work for P. & T., D.G.S. & D., Public Health and Railways.

#### NATIONAL INSTRUMENTS LTD.

(1/1, Raja Subodh Mullick Road, Jadavpur, Calcutta 32).

(Under the Ministry of Industrial Development & Company Affairs.)

This company manufactures and repairs at its Instruments Plant at Jadavpur, Calcutta, precision instruments such as Survey Instruments, Drawing Office Equipment, Optical Instruments such as Microscopes & Binceulars, Vision Sighting Equipment of various types, Medical Instruments such as Ophthalmoscope & Sphygmomanometer, Measuring Instruments such as Pressure and Vacuum Gauges and a variety of other precision instruments.

The company's Ophthalmic Glass Plant at Durgapur when on full production will produce 300 tonnes of Ophthalmic glass blanks out of which 200 tonnes will be released as blanks in the market and 100 tonnes processed into finished lenses for eye care.

The company has provided training facilities under the

Apprenticeship Act.

The Instruments Plant at Jadavpur has taken up a modernisation and diversification production programme to produce a sophisticated range of products now being imported like one Second Theodolite, Automatic Level etc.

#### NEYVELI LIGNITE CORPORATION LTD.

(Ministry of Steel, Mines & Metals, Government of India). Neyveli 1, South Arcot Dist.

This is a Rs. 175-crore Project. The Integrated Project envisages the mining ultimately of above 6 million tonnes of lignite per annum, the present rate being 5 million tonnes per annum.

The lignite is utilised for (a) the generation of power in a 600 M.W. Thermal Power Station, (b) the production of Urea with a nitrogen content of 46 per cent in a Fertilizer Factory of a capacity of 1,52,000 tonnes of Urea per annum, (c) manufacture of carbonised briquettes from lignite in a Briquetting & Carbonisation Plant of a capacity of 3,27,000 tonnes per annum and (d) production of 6,000 tonnes of washed clay.

The Urea Plant at Neyveli is the biggest of its kind in the world and the first to gasify lignite to produce Urea.

The following tar products are also produced in the B & C Plant: Tar, Neutral Oil, Carbolic Acid (Phenol), Ortho Cresol, Meta-Para Cresols, Xylenols and Polyvalent Phenols.

#### OPTICAL GLASS

Central Glass and Ceramic Research Institute, Calcutta 32.

The pilot plant located at the Institute produces the major types of optical glass required in the country.

## PYRITES AND CHEMICALS DEVELOPMENT CO., LTD.

Registered Office: Dr. Joseph House, Canal Road, Dehri-on-Sone, Dist. Shahabad, Bihar.

Branch Offices: (i) Mining Project, P.O. Amjhore, Dist. Shahabad, Bihar. (ii) Office of the Resident Representative, N-5, N.D.S.E., Part-I, Ring Road, New Delhi-49. (iii) Office of the Assistant Purchase Officer, No. 9, Syed Amir Ali Avenue, Fourth Floor, Calcutta-17. (iv) Office of the Project Officer, Exploratory-cum-Production Mining Project, Saladipura, P.O. Khandela, Dist. Sikar, Rajasthan. (v) Exploratory Mining Project, Maldeota Phosphate Deposit, 98-C, Race Course Road, Dehra Dun (U.P.)

Objects: Raising, assembling and transporting of pyrites and phosphates ores in such areas in India and elsewhere as the Company may from time to time determine for the purpose of sale or use or for the manufacture of sulphur, sulphuric acid and any other bye products out of pyrites ore and for manufacture of phosphate and allied fertilizer minerals.

Activities: Investigation, Planning, Exploitation and mining programme of pyrites and rock phosphates.

Mining Programme: Pyrites: (i) The mine at Amjhore has already started production in 1968 and more than 46,300 tonnes have been despatched to Sindri for trial runs and commissioning of the first pyrite-based Sulphuric Acid Plant there. During this first phase, the mine will produce 400 tonnes/day and the production of 400 tonnes/day has been planned and phased to meet the requirement of another pyrite-based Sulphuric Acid Plant at Sindri which is expected to be commissioned in mid 1971.

(ii) Exploratory-cum-production mining at Saladipura has been undertaken which will block out nearly 3 million tonnes of pyrite ore and provide necessary data for drawing up feasibility report and detailed Project Report for a major fertilizer complex to be set up in Rajasthan. The scheme is expected to be completed by February, 1972.

Rock Phosphate: Exploratory mining work is being conducted at Maldeota in the district of Dehra Dun (U.P.). It will provide necessary data to find out economic viability to exploit this rock phosphate deposit.

#### RAJASTHAN ATOMIC POWER PROJECT

(See under " Research ")

#### SHIPPING CORPORATION OF INDIA LIMITED

Registered Office: "Steelcrete House", Dinshaw Wacha Road, Bombay-20 BR.

Branch Offices: CALCUTTA: Nilhat House, 11, R. N. Mukherjee Road, Calcutta-1.

MOMBASA: Renmar House, Kilindini Road, Mombasa. Chairman & Managing Director: C. P. Srivastava, IAS.

Number of vessels: Cargo vessels 49, passenger-cumcargo 4, bulk carriers 3, timber carrier 1, bulk coal carriers 3, tankers 6, Total 66.

Total G.R.T.: 6.32 lakhs, D.W.T. 9.47 lakhs.

Services: Passenger-cum-cargo services from India (1) East Africa (2) Malaysia & Singapore (3) Ceylon and (4) Calcutta-Madras to Andaman & Nicobar Islands.

Cargo Services: From India to U.S.A. (Atlantic & Pacific Coasts), Canada (Pacific Coast), U.K., Continent, Poland, U.S.S.R., U.A.R., East Africa, Australia, Far East, Japan, West Asia (Gulf and Red Sea).

Tanker Services on coastal and overseas trades, Colliers on Indian Coast.

## TARAPUR ATOMIC POWER PROJECT

(See under " Research ")

#### WASHERIES

The Durgapur washery which is an integral part of the Durgapur Steel Plant, has an input capacity of 1·2 million tonnes of raw coal per annum. The three Hindustan Steel Ltd. washeries at Dugda, Bhojudih and Patherdih have input capacities of 2·40, 2·00 and 2·00 million tonnes respectively and the Kargali washery of the National Coal Development Corporation has an input capacity of 2·72 million tonnes per annum. Dugda II Washery with raw coal input capacity of 2·40 million tonnes has been completed.

The Durgapur Projects Washery with an input capacity of 1·20 million tonnes has been completed and gone into commission. Washeries at Kathara, Gidi (Karanpura) and Sawang with input capacities of 3·00, 2·84 and 0·75 million tonnes of raw coal per annum respectively are nearing completion.

## STATE-OWNED OR STATE-AIDED

## ANDHRA PRADESH THE ANDHRA PAPER MILLS LTD.

(Rajahmundry).

Head Office: Shreenivas House, Waudby Road, Bombay 1.

The present production capacity is 160 tonnes per day. The production of the Mills is mainly writing, printing and wrapping papers. Speciality—Super calendered, size pressed and rag content papers and liner boards etc.

## **GOVERNMENT CERAMIC FACTORY**

(Gudur, Nellure Dist.)

The factory produces sanitaryware and L.T. Electrical Insulators. During the year 1968-69 the production was 4·23 lakhs kgs. valued at Rs. 4·43 lakhs.

#### HYDERABAD TANNERIES LTD.

(Hyderabad)

The factory does the tanning of cow and buff hides, sheep skins and goat skins. Export of tanned hides and skins is also done.

#### NIZAM SUGAR FACTORY LTD.

The Nizam Sugar Factory is the largest single sugar producing unit in the country.

#### PRAGA TOOLS LIMITED

6-6-8/32, Kavadiguda Road, Secunderabad 3.

The Company produces machine tools and allied accessories, precision tools, forgings for auto and diesel spares and rail-road components, defence items, etc.

#### REPUBLIC FORGE COMPANY LTD.

Maula Ali, Hyderabad-40.

The Company manufactures precision drop forgings for Railway Automobiles, Tractors, Industrial Engines and other engineering industries. It is fully equipped with die shop, heat treatment, shot blasting and other facilities.

## SINGARENI COLLIERIES

Coal is mined in the State by the Singareni Collieries Co. Ltd. from the coal fields at Kothagudem, Yellandu, Rudrampur, Belampalli, Mandamari, Ramakrishnapur and Ramagundam.

Production of coal during 1967-68 was 40.95 lakh tonnes as against 41.78 lakh tonnes in 1966-67.

#### ASSAM

#### ASEB METER WORKS

Short Round Road, Shillong.

A Rs. 60 lakhs factory, an Assam State Electricity Board enterprise, manufactures single phase house service KWH metres and polyphase metres.

#### ASSAM CEMENTS LIMITED

Cherrapunjee, Assam.

The Company has set up its factory at Cherrapunjee for manufacture of Portland Cement with a capacity of 250 tonnes per day. Expansion of the factory which is expected to be completed by 1971 will increase the capacity to 850 tonnes per day.

## ASSAM GAS COMPANY LTD.

Shillong (Assam).

Aims and Objects: Utilisation and distribution of natural gas available from the Oil and gas fields in Assam

as feed stock for petrochemical industries and as industrial and domestic fuel. Distribution of liquified petroleum gas for domestic, commercial and industrial purposes.

Present Activity: Construction of the gas supply project at Duliajan in Upper Assam which includes completion of the construction of the extended portion of the 14" dia. Namrup-Naharkatiya pipeline upto Duliajan and installation of the gas compressor station at Duliajan and also the construction of the Housing Project in the Assam Gas Co. Colony at Duliajan.

For transmission of the natural gas available in the Moran oil gas fields and also from the oil and gas fields of ONGC in Upper Assam to Namrup, the feasibility of the construction of a pipeline of about 35 miles long is under examination.

#### IYOTI CHITRABAN

(Assam Government Film Studio)

Kahilipara, Gauhati.

The basic objective is to encourage private film producers to undertake production of indigenous films at the minimum cost. A substantial part of the project has been completed.

The State Government has constituted an Advisory Board to advise the Government in all matters on the management and proper maintenance of the Film Studio with the Chief Minister, as the Chairman.

The total expenditure involved in the execution of this project amounts to Rs. 15 lakhs approximately.

#### BIHAR

## BIHAR STATE SUPERPHOSPHATE FACTORY

P.O. Sindri Institute, Dist. Dhanbad. (Bihar).

Installed capacity of plants: (i) 240 tons superphosphate per day; (ii) 25 tons of 100 per cent sulphuric acid per day.

At present the factory produces between 35,000 and 40,000 tons of superphosphate a year.

#### HIGH TENSION INSULATOR FACTORY

P. O. Namkum, Ranchi-10, Bihar.

This factory has been set up by the Government of Bihar with the technical collaboration of Czechoslovakia. The present installed capacity is 2,400 metric tonnes per annum with the varying range of production as transmission line insulators upto 220 KV, bushings and Pin & Post insulators upto 33 KV besides L.T. Pin, Shackles and Guy insulators.

#### GUJARAT

#### GUJARAT STATE FERTILIZERS COMPANY LTD.

P. O. Box No. 123, Baroda.

The details of production, expansion plans, etc., are: First phase already completed. Annual production capacity in metric tonnes per year: Ammonia 150,000; Urea 103,000; Technical Grade Urea 3,300; Sulphuric Acid 156,000; Phosphoric Acid 54,500; Ammonium Sulphate 156,000; Diammonium Phosphate 113,000; Ammonium Sulphate Phosphate (20:20) 264,000; No. of persons employed 1,150. Total yearly potential sales Rs. 30 crores.

Second phase started (June 1967) — Ammonia 165,000 tons per year; Urea 264,000 tons per year; total Nitrogen and P<sub>2</sub>O<sub>5</sub> 313,000 tons per year; (in terms of plant nutrient).

Yearly total investment including working capital, interest, letter of credit formalities, etc., for first and second phase together Rs. 63 crores.

Third Phase — Cyclo hexane and Caprolactum 16,500 tons per year. Total number of persons employed 1,600.

#### JAMMU & KASHMIR

## COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

#### DRUG RESEARCH LABORATORIES

Raj Bagh, Srinagar.

The present production and the sales effected are valued at Rs. five lakhs and Rs. six lakhs respectively.

#### DRUG RESEARCH LABORATORIES

(Factories & Farms) (CSIR)

Canal Road, Jammu, Tawi.

Belladonna concentrated extracts, Belladonna consumer goods, *i.e.*, Belladonna plaster etc. Dissogenin, Menthol and Dementholised oil, Pyrethrum Oleoresin and cedarwood oil.

## GOVERNMENT SILK WEAVING FACTORY

(Raj Bagh, Srinagar).

It is the largest powerloom factory for the production of pure silk fabrics in India. At present there are 126 looms and 9,000 spindles. The factory is equipped for dyeing and block printing.

The total production is 3.50 lakh metres per year.

#### **GOVERNMENT WOOLLEN MILLS**

(Srinagar, Kashmir).

The average monthly production on the basis of 1962-63 working is—cloth 2,31,000 yards and yarn 4,54,000 lbs.

#### KERALA

#### GOVERNMENT OIL FACTORY

(Kozhikode).

The factory now produces various vitamin products such as Seagold blended shark liver oil, Adamin liquid high potency Vitamin Oil, Adamin capsules, Stayfit liquid, Stayfit capsules, and Veterinary Vitamin Oil such as Univax and Trivax, etc. using up-to-date equipment and testing apparatus.

## KERALA GOVERNMENT CERAMICS

Kundara, P.O. Kerala.

The Kerala Ceramics Ltd., Kundara consists of three working units.

Unit I, the New Porcelain Factory producing porcelain crockery, and low tension electrical insulators. Unit II, the old Factory is now being reorganised for the production of stoneware pipes and refractories and Unit III, China Clay Mines producing refined China Clay.

## KERALA ELECTRICAL & ALLIED ENGINEERING COMPANY LIMITED

Mamala P.O., Cochin (Kerala).

This Company has three Manufacturing Divisions.

#### A. MAMALA WORKS

1. Transformer Division:—The unit is equipped to manufacture Transformers upto 1500 KVA, 33 KV with annual output of 1,20,000 KVA. Now the range of

manufacture is extended upto 3,000 KVA. Transformers of special nature, Rectifier, Furnace etc. are also manufactured as per customers' requirement.

2. Structural Division:—Design, fabrication and erection of all types of steel structures for industrial building, power houses etc. Vertical gates, radial gates, pressure gates, sluice gates including hoist mechanism and lifting gantries, lock gates and screw geared shutters, cranes structures etc., galvanised transmission line towers, M. S. Pipes and special storage tanks, etc.

#### B. KUNDARA DIVISION

1. Electric Motors 1.5 HP to 10 HP Screen Protected and totally enclosed fan cooled types; 2. Centrifugal pumps including special high discharge de-watering pumps; 3. Electrical wiring accessories viz. tumbler switches, fuse units, cutouts etc.; 4. Bakelite mouldings; 5. C.I. pipes and specials and G.I. castings weighing upto 1.5 M.T.; 6. Pole line hardwares like stay rods, cross arms etc.

#### THE KERALA PREMO PIPE FACTORY LIMITED

Puthenthura (P.O.), Quillon District.

Registered Office: Puthenchantai, Trivandrum 1.

In this factory prestressed high and low pressure concrete pipes and R.C.C. pipes are manufactured for water supply, drainage and irrigation.

It also produces power transmission poles and mosaic tiles. The factory can design and manufacture special purposes reinforced concrete or prestressed concrete articles.

It can manufacture upto 25,000 metres of prestressed concrete pipes annually. Pipes can be designed and manufactured for all normal water supply and drainage requirements.

#### KERALA SOAPS AND OILS LTD.

(Soap Institute Division)
Calicut-11.

The institute manufactures several varieties of toilet soaps including the Kerala Sandalwood, Willingdon, Vep, Rose soaps etc. as also Wash-well and other varieties of bar soaps.

The capacity of the factory is about 450 tons per annum. But it is now being increased to 700 tons.

Turnover in 1968-69 was Rs. 14 lakhs.

#### PALLATHRA BRICKS & TILES LTD.

P.O. Kochuramapuram, Shertallay.

The object of the Company is to produce and distribute sand lime bricks, a new architectural brick of high strength and finish. The designed capacity of the factory is 44,000 bricks per working day of 16 hours.

#### TRACO CABLE COMPANY LTD.

Irimpanam, Ernakulam.

One of the main objects of the company was to carry on business as manufacturers and dealers in all kinds of wires and cables.

The present licensed capacity is 36 million core yards of VIR/PVC/Polythelene Wires & Cables and 1,500 M.T. of A.A.C./A.C.S.R. Cables.

The Company's present production lines include PVC Wires with both copper and aluminium conductors, PVC insulated armoured and unarmoured power cables for working voltages upto 1·1 kV and A.A.C. & A.C.S.R. Conductors.

The Company proposes to manufacture PVC insulated jumper wires, switch board wires and multicore telephone cables.

## TRAVANCORE PLYWOOD INDUSTRIES LTD.

Punalur.

The installed capacity of the factory at present is 4.5 lakh sq. metres plywood panels including decorative sizes per annum.

Annual turnover is Rs. 20,00,000.

A modern commercial plywood unit with an installed capacity of 20 lakh sq. metres of plywood was expected to go into production in 1969-70.

#### TRAVANCORE TITANIUM PRODUCTS LTD.

Kochu Veli, Trivandrum-7 (Kerala).

The factory is the only unit in India producing Titanium Dioxide pigments, an important intermediate for paint, rubber and many other consumer products. It has now a production capacity of 18 M. tons per day.

## TRIVANDRUM RUBBER WORKS LTD.

(Chackai, Trivandrum 7).

The main products of the company are Rubber goods such as Cycle Tyres and Cycle Tubes, Hoses of all kinds, Latex goods, foams cushions and mattresses, Tubings, sheetings, moulded goods etc., Cycle Rims and 'Kerala' Cycles. The Company is now exporting Cycle Rims to East African and other African countries. The company employs 448 persons.

## TRIVANDRUM SPINNING MILLS LTD.

Balaramapuram.

Equipped with modern superhigh draft machinery for 25,200 spindles and 800 spindles of doubling frames, this mill manufactures quality yarn of counts varying from 10s to 100s in hanks and cones.

## MADHYA PRADESH

## MADHYA PRADESH LAGHU UDYOG NIGAM LTD.

Shahnaz Manzil, Sultania Road, Bhopal.

Main objects are to promote the growth and development of Small Scale Industries in the State.

The Nigam has undertaken the following activities:-

- Procurement and distribution of scarce and controlled materials to the Small Scale Industries in the State at fair price through its raw material depots at Indore, Gwalior, Bhopal, Jabalpur, Bhilai & Raipur.
- (2) Running of seven production units manufacturing umbrella ribs & sticks, brushes, cycles and cycle parts, centrifugal electric pumps, finger jointed wooden products and iron and steel products, like barbed wire, nails and other products.
- (3) Two new production units for the manufacture of agricultural implements, one at Khandwa and the other at Bhilai. The factory at Khandwa has started production.
- (4) Sale of handloom and handicraft products, through 14 emporia and participation in exhibitions and export promotion. Inter-State sales of handloom and handicraft products of J. & K. and W. Bengal Stores.
- (5) Sales and publicity for the increased sales of products manufactured by the production units run by the Nigam and also to meet the demands of the State Government Departments Institutions.
- (6) Exports of handloom & handieraft products.

(7) Construction of industrial estates, rural work sheds and development of industrial areas.

## THE NATIONAL NEWSPRINT AND PAPER MILLS LIMITED

(Nepanagar, Nimar Dist., Madhya Pradesh).

The factory produces newsprint. The yearly rated capacity of the first and the second Paper Machine is 30,000 tonnes and 37,500 tonnes respectively. The production during 1968-69 was 30,562 tonnes.

There were 1,586 workers as on March 31, 1969.

## MAHARASHTRA

## **GOVERNMENT BACON FACTORY**

National Park, Borivli, Bombay-92.

The Government of Maharashtra has established a bacon factory with a capacity to slaughter 100 pigs a day. The total capital investment on this factory including buildings, equipment and vehicles etc. is about Rs. 52·22 lakhs.

Main objects: To give remunerative markets to the farmers who raise pigs in the State. This also provides nutritious animal proteins at cheaper rates to the public.

The factory produces canned meat, bacon, ham and sausages. The finished products viz. bacon, ham and sausages are sent to Bombay markets.

## MANGANESE ORE (INDIA) LTD.

3, Mount Road Extension, Nagpur.

The Manganese Ore India Ltd. operates the manganese mines in Nagpur, Bhandara and Balaghat districts. All mines except Dongri Buzurg, which were previously being worked by the C. P. Manganese Ore Co. Ltd. were transferred to this Company.

The output and sales of the usual grades of manganese ore during 1968-69 were 2,38,595 and 3,56,693 tonnes respectively, besides 83,378 and 63,979 tonnes respectively of lower grade ore. The total number of workers employed by the company at different mines is 12,500.

#### MYSORE

## THE GOVERNMENT CENTRAL INDUSTRIAL WORKSHOP

(Mysore Road, Bangalore 26).

Annual outturn: Rs. 35.57 lakhs. No. of persons employed: 322.

The workshop is engaged in general engineering works such as manufacture of inter cooler unit, cold blender, bobbins, road rollers, copper alloy and sliding bearing plates, hand mixers. The manufacture of low bed trailer and dumper bodies is also undertaken.

#### GOVERNMENT ELECTRIC FACTORY

(Mysore Road, Bangalore-26).

Main products: Transformers in sizes upto 3,000 kvA and voltages upto 33 kv to an aggregate of 3,00,000 kvA per annum, scientific instruments, motor pumpsets and fans. Annual turnover Rs. 150 lakhs. No. of persons employed: 900.

## GOVERNMENT SANDALWOOD OIL FACTORIES IN MYSORE

Factories at (1) Mysore, (2) Shimoga (Mysore State).

Production: 1968-69: Quantity 117,295 Kgs. of Sandalwood oil valued at Rs. 2,20,97,694. No. of persons employed 330.

## GOVERNMENT SOAP FACTORY

Post Box No. 1031, Bangalore-12.

Annual outturn: Rs. 2.43 crores. No. of persons employed: 302.

The factory produces 3,200 tonnes of soaps per year. It has now installed a latest Automatic Vacuum Toilet Soap Washing Soap processing plant imported from Italy. The factory produces world famous "Mysore Sandal Soap" and other varieties of soaps.

#### THE HUTTI GOLD MINES CO. LTD.

Hutti P.O. (Via Raichur-Deccan).

The current production is at the rate of 1,70,000 tonnes of ore treated per annum with a recovery of 1,150 kg. of gold.

Production at the expanded rate was scheduled to commence about mid 1970, when 3,10,000 tonnes of ore would be treated per annum for a recovery of about 1,930 kg. of gold.

## THE MAHABOOB SHAHI KULBURGA MILLS CO.

Gulbarga (Mysore State).

The Mill runs 20,000 spindles and 528 looms with Processing Section. Under the modernisation scheme it is proposed to install about 9,000 spindles more.

## THE MYSORE CHROME TANNING CO. LTD.

Mysore Road, Bangalore-26.

The company manufactures all kinds of chrome upper leathers, B.T. sole leathers, besides manufacturing leather goods such as ammunition boots for police and defence departments, air travel bags, document cases, suit cases, ladies hand bags, industrial leathers, washers for hydroelectric turbines, safety belts and straps for hot line workers etc.

#### THE MYSORE IRON AND STEEL LIMITED

(Bhadravati, Shimoga Dist., Mysore State).

The Mysore Iron and Steel Ltd. is an integrated Steel Plant producing pig iron, mild steel, alloy and special steels, ferro-silicon, cast iron, steel castings, spun pipes, cement etc. and has an annual capacity of 77,000 tonnes.

The Company exports its products like ferro-silicon, pig iron and steel to various countries like U.K., U.S.A., West Germany, Saudi Arabia, Japan, Malaysia, Singapore, Ceylon, Spain etc.

The Company employs 10,225 persons.

The expansion scheme for stepping up the production of pig iron from 80,000 tonnes to 2,00,000 tonnes is under way.

## MYSORE GOVERNMENT SILK WEAVING FACTORY Mananthody Road, Mysore-4.

Annual outturn: Rs. 35 lakhs. Number of persons employed: 268.

The factory is engaged in the manufacture of high grade 100 per cent re-reeled pure silk fabrics such as Crepe-dechine, Georgette, Satins, Sarees, Kerchieves, Ties and other ladies wear.

New varieties such as Tom-tom, Fireplay, Navrang, Champion, Rainbow, Taffetta fabrics; Scarves, Raw Silk fabrics, Batic printed sarees, Reversable sarees etc., are also manufactured.

#### MYSORE IMPLEMENTS FACTORY

(Hassan).

Annual outturn: Rs. 40 lakhs. No. of persons employed: 309.

The factory has been mechanised for mass production of agricultural, estate and horticultural implements and tools like mumties, pick axes, sledge hammers, shovels, crowbars, sheet metalware, etc. to meet the increasing demand from several Govt. departments for their several irrigation projects and drought relief works and private consumers. A network of agencies is functioning throughout the country.

#### MYSORE MINERALS LTD.

46, Fair Field Road, Bangalore 1.

This company deals with mining and marketing of the following minerals: Iron Ore, Manganese Ore, China Clay, Aluminous Clay, Chromite, Asbestos, and Soapstone.

The total sales by the company during the year 1968-69 amounted to Rs. 62.33 lakhs.

The company provides employment for over 1,500 people per day. It has earned foreign exchange amounting to Rs. 93.66 lakhs in 1968-69 from iron ore and chromite including iron ore moved on behalf of M.M.T.C.

#### MYSORE PORCELAINS LIMITED

P.B. No. 1, Science Institute Post, Bangalore 12.

The company manufactures H. T. & L. T. Electro-Porcelain Insulators and accompanying metal parts. It has facilities for the manufacture of 7,500 M. T. per annum of these items, and employs about 1,500 persons.

Apart from conventional varieties of insulators, the factory develops and supplies special apparatus porcelains to the specifications of the customers, besides meeting the requirements of Solid Core Insulators needed for railway electrification schemes in India. Sales as of 31-3-1969: Rs. 190 lakhs.

#### NGEF LTD.

Byappanahalli, Bangalore-33.

Main products: (i) Transformers upto 40,000 kVA and voltages upto 132 kV to an aggregate of 10,00,000 kVA per annum, per single shift. (ii) Motors: Upto 1500 HP both in LT and HT upto 6.6 kV to an aggregate of 4,00,000 HP per annum, per single shift. (iii) Switchgear: Low oil content circuit breaker upto 11 kV, Air circuit breakers, HT and LT Switchboards, Drum type switches, Distribution boards, Load Break Switches, HRC Fuses etc. of the value of about Rs. 1.2 crores per annum, per single shift.

#### RADIO & ELECTRICALS MFG. CO. LTD.

Mysore Road, Bangalore-26.

The company manufactures radio receivers & allied components, plastic insulated wires & cables, electricity meters, water meters, wave-change switches, paper & electrolytic capacitors, loudspeakers, transistorised radio receivers, and community radio receivers. There is a Research & Development Wing to design a large variety of electronic test equipment mostly for company's own use. The company also produces single phase electricity meters, polyphase electricity meters—both 3 phase 4 wire and 3 phase 3 wire, multijet inferential type watermeters, a new type of watermeter viz. 'TNR' and lightning arresters.

#### TUNGABHADRA STEEL PRODUCTS LTD.

Tungabhadra Dam P.O. (Bellary Dist., Mysore).

Production: Steel structures including gates, hoists and transmission towers 4,000 tons per annum; penstocks 3,000 tons; grey iron castings 500 tons; cranes worth Rs. 18 to 24 lakhs per annum.

A galvanising plant with a capacity of 3,000 tons per annum working in a single shift has been commissioned. The company has its own design branch, grey iron foundry, rubber seal section, X-ray and photographic section.

It has entered into a collaboration agreement with Messrs. Est. Neyrpic, Grenoble, France for the designing and fabrication of hydraulic gates.

#### ORISSA

#### CUTTACK IRON & STEEL PRODUCTS LTD.

Industrial Estate, Cuttack-3 (Orissa).

The company manufactures fabricated steel goods. It undertakes all types of fabrication work. Its products can be divided into three categories: (1) Heavy Goods (trusses, transmission towers, hand cranes etc.), (2) Semi-Heavy Goods (window grill, steel window, W.I. gate, collapsible gate, garage gate, electric cross-arms, wheel barrow, scraper, drums etc.), (3) Light Goods (novelty goods like table tray, flower stand, garden chair and other types of furniture and office equipment like file tray, file rack, etc.).

#### ORISSA BOARD MILLS LTD.

P.O. Jagatpur (Dist. Cuttack, Orissa). (Regd. Office: Meria Bazar, Cuttack-1).

This is a pilot project company of the Government of Orissa. The mills produce monolithic quality straw boards and mill boards from 16 oz. to 48 oz.

#### ROURKELA FABRICATIONS LTD.

Industrial Area, Rourkela-4.

The factory manufactures quality steel window, angle roof trusses, purlins, all steel screw gear shutters, falling shutters and for any type of structurals heavy, medium and light.

Turn-over for 1968-69: Rs. 5.56 lakhs.

#### TAMIL NADU

#### MADRAS FERTILIZERS LIMITED

"Fagun Mansion", 19, Commander-in-Chief Road, Madras 8.

Objects: To manufacture and market Ammonia, Urea and Complex Fertilizers within installed plant capacity of 750 tonnes, 885 tonnes, and 1,100 tonnes per day respectively. The Fertilizer Plant is being constructed at Manali, Chingleput District, Madras and is expected to go into production in the first quarter of 1971.

#### WOOL PROCESSING CENTRE

Vinnamangalam, North Arcot District, Madras.

The Wool Processing Centre, of the Government of Tamil Nadu processes tannery wool/hairs, bristles to meet the requirements of drugget, carpet and felt manufacturers of India and abroad. The production capacity is 750 tonnes per year.

#### UTTAR PRADESH

#### **GOVERNMENT CEMENT FACTORY**

Churk, Mirzapur, U.P.

The plant's present rated capacity is 1,400 tonnes of cement per day. Production of cement during 1968-69 was 3,62,114 tonnes.

There are 1,859 persons working in the factory and 1,500 persons in the quarries.

### **GOVERNMENT PRECISION INSTRUMENTS FACTORY**

Lucknow, P. Box 153, U.P.

The factory produces watermeters of 15 mm, 20 mm and 25 mm sizes, microscopes research, scholar and bullet comparion and pressure gauges of 2'/2", 4" and 6" dial sizes in various ranges and depth gauges.

#### THE INDIAN TURPENTINE & ROSIN CO. LTD.

P.O. Clutterbuckganj, Bareilly (U.P.)

From crude resin, the company manufactures turpentine and rosin of international repute conforming to I.S.I. Certification marks. The gum of pine trees, the main raw material, is being obtained from the Kumaon and Tehri forests of U.P.

#### WEST BENGAL

## THE KALYANI SPINNING MILLS LTD.

67, Bentinck Street, Calcutta-1.

Works: Kalyani, Dt. Nadia; and Ashokenagar, Dt. 24-Parganas.

Range of Production: Cotton yarn from 20s to 120s carded and combed, singles and doubles, in hanks and cones—for handlooms, powerlooms and hosieries.

Installed capacity: 75,160 spindles. Production during 1968-69: 16,14,020 kgs. Persons employed: 2,000 (approximately).

THE DURGAPUR PROJECTS LTD.

Registered Office: 10, Middleton Row, Calcutta-16.

Factory: Coke Oven Plant, P.O. Durgapur-2, Burdwan.

Products: Coke, Benzene, Industrial Toluol, Motor Benzol, Light Solvent Naptha and Lux Mas.

Tar Products: Carbolic oil, Solvent oil, Naphthalene oil, Crude Naphthalene, Anthracene oil, Timber Pickling oil, Sodium Phenolate, Processed Tar, Road Tar (No. 3 & 4).

## INDIANS OVERSEAS

THE number of Indians abroad (1969) is given below as per the available informations with our missions abroad.

Afghanistan 20,000; Aden 2,000; Algeria 132; Argentina 160; Australia 3,108; Austria 165; Bahrain 5,500; Barbados 512; Belgium 377; Bolivia 5; Botswana 400; Brazil 57; Bulgaria Nil; Burma 2,72,000; Burundi 175; Cambodia 80; Cameroun 20; Canada 20,000; Ceylon 12,34,126; China 20; Chile 63; Colombia 34; Camores Island 85; Congo 3,000; Cuba 32; Cyprus 8; Czechoslovakia Nil; Dahomey 2; Denmark 256; Ethiopia 4,520;

Fiji 2,41,000; Finland 28; French Guiana 2; France 1,400; Ghana 1,750; Gibraltar 150; Grenada 9,500; Greece 13; Guinea 5; Guyana 3,42,374; Hong Kong 4,000 to 5,000; Hungary 45; Indonesia 27,617; Iran 1,000; Italy 761; Iraq 12,570; Ireland 150; Jamaica 27,951; Japan 1,141; Jordan 39; Kenya 1,72,600; Kuwait 12,006; Laos 1,800; Lebanon 250; Le Reunion 430; Libya 335; Liberia\*; Madagascar 12,350; Malawi 10,900; Malaysia 8,10,000; Malta 100; Mauritius 5,20,000; Mexico 20; Morocco 540; Muscat 4,500; Netherlands 202; New Zealand 6,130; Nigeria 1,600; Norway 35; Panama 361; Philippines

<sup>\* 325 (</sup>figure for 1967).

2,516; Poland 19; Peru 10; Qatar 2,000; Rumania 1; Rwanda 40; Saudi Arabia 1,035; Senegal 73; Ivory Coast 1; Gambia 20; Sierra-Leone 425; Singapore 1,25,000 Somalia 1,360; Southern Rhodesia 8,100; Spain 1,600; St. Vincent 3,703; Sudan 2,550; Surinam 1,01,715; Sweden 338; Switzerland 900; Syria 10; Tanzania 1,02,000; Thailand 18,014; Trinidad and Tobago 3,02,049; Togo 4; Tonga 26; Trucial States 5,000; Tunisia 27; Turkey 11; U.A.R. 453; Uganda 76,600; U.K. 2,70,000; Uruguay 1; U.S.A. 32,062; U.S.S.R. 759; Venezuela 19; Vietnam (north) 8; Vietnam (South) 2,000; West Germany 4,681; Yemen (north) 21; Yugoslavia 96; Zambia 11,450.

#### **EMIGRATION LAWS**

"Emigration" means the departure, by sea or by air, out of India, of Citizens of India, under an agreement to work for hire in any country beyond the limits of India, or if assisted to depart otherwise than by a relative with the intention of working for hire or engaging in agriculture.

Such emigration is governed by the Emigration Act, 1922 (7 of 1922) and the Rules made thereunder, as amended from time to time.

Emigration for the purpose of 'unskilled work' is prohibited, while emigration for the purpose of 'skilled work' is permissible on compliance with the prescribed formalities.

The functions under the Act are discharged by the Central Government through the Controller-General of Emigration and Jt. Secretary to the Government of India in the Ministry of External Affairs, New Delhi, with the assistance of the Protector of Emigrants at the Ports and airports from which emigration is lawful.

The emigration figures for 1967-68 (1st April 1967 to 31st March 1968) is given below:

South Africa and Portuguese East Africa (—); East Africa 286; Indonesia 1; Malaysia 56; Saudi Arabia 253; Burma 1; Ceylon 4; Fiji (—); Zambia 100; Malawi (—); S. Rhodesia (—); Surinam (—); Guyana 3; West Indies (—); U.S.A. 47; Canada 59; Kuwait 869; Nigeria 101; Dubai 209; Bahrain 377; Abu Dhabi 94; Qatar 99; Ghana 52; Muscat 292; Other countries 414.

More details of Indians in some of the countries for which information is available are given below:

#### **AUSTRALIA**

An Indian already domiciled in Australia has full citizenship rights, including the right to introduce a spouse and minor unmarried children. Indian business men, bona fide tourists, sportsmen and entertainers may visit Australia and stay for periods not exceeding 12 months, and Indian students may be admitted with temporary residence status for education and specialised training.

Indian citizens already admitted with temporary resident status (other than in a student or visitor capacity) but with the intention of indefinite stay will qualify to apply for resident status and citizenship after five years residence.

An application by an Indian who wishes to settle in Australia with his wife and children is considered on the basis of the applicants' suitability as settlers, ability to integrate rapidly, and having qualifications which are in fact positively useful to Australia. After five years' stay on temporary permits, they may apply for resident status and citizenship.

#### CANADA

Since September 1967 when the Canadian new Regulations relating to universal selection became operational no quota agreements have been in operation.

Applications from prospective immigrants to Canada from India should be addressed to The Canadian Immigration Attache, 7 Link Road, Jungpura Extension, P.O. Box 161, New Delhi-1.

Indian residents of Canada are largely comprised of labourers employed in lumbering and trucking. There are a few lumber mill owners, and some are working as clerks in various establishments. A good number can also be termed professionals, technicians and highly skilled workers. Since very few professional degrees obtained in India are recognised on the equivalent basis in Canada, these professionals are able to practice only if they have had training outside India prior to emigration to Canada. The majority of Indians are in British Columbia. A good many today go on to industrial centres like Montreal and Toronto. The Indian community is called the "East Indian Community".

Any person admitted to Canada as an immigrant might become a citizen of Canada after five years' continuous residence there.

There are no disabilities on Indians in the matter of owning property, engaging in trade or profession, entering Government service or residence in any locality.

Indians can remit to India any amount earned in Canada.

Figures of Indians arriving in Canada: 1960: 673; 1961: 744; 1962: 725; 1963: 846; 1964: 1,295; 1965: 2,241; 1966: 2,233; 1967: 2,700; 1968: 3,000.

#### CEYLON

There are about 11,87,059 persons of Indian origin in Ceylon. Out of this number, approximately 26,829 are Indian citizens, 1,34,236 are registered citizens of Ceylon and 10,29,994 are stateless persons. The large majority of these persons are employed in the tea and rubber estates in Ceylon. Merchants, petty shop keepers and employees in business establishments constitute the balance and are mainly concentrated in the urban areas.

About 1,30,778 Indian nationals had left Ceylon either voluntarily or because of non-renewal of their visas upto the end of April, 1967 as a result of Ceylonisation programme of the Government of Ceylon.

A non-national leaving Ceylon can repatriate Rs. 1.5 lakhs in the case of those other than Indians and Rs. 75,000 for Indians.

## **ETHIOPIA**

Emigration to Ethiopia is neither restricted nor entirely free. Each case is judged on its merits, and there is no quota. Foreigners who wish to start new industries or go into farming are given special encouragement.

Remittances from Ethiopia to India by Indians are restricted and regulated by rules according to which anybody who is for more than six years in Ethiopia can remit only family expenses for near relatives on the basis of affidavits from India. There is no restriction for grant of foreign exchange for importing goods.

Most of the Indians are business men from the Gujarat and Saurashtra regions of India. Almost all of them are engaged in trade specially in the import of textiles. Besides, there are over 700 Indian teachers who have been recruited by the Ethiopian Government to further the cause of education. Some Indians are engaged also as Advisers to various Ministries. There are also a few Indians working as International Civil Servants in the Economic Commission for Africa whose headquarters are at Addis Ababa.

#### **MAURITIUS**

People of Indian origin in Mauritius form about 68 per cent of the total population of 7,73,573 as on June 30, 1967. These people have been settled here for generations and are now known as "Indo-Mauritians". Between 35 to 40 per cent of the agricultural land in Mauritius is owned by these Indo-Mauritians. A large number of them are farm labourers in sugar plantation. The rest are engaged in commerce and trade or professions or Government service. Indo-Mauritians are coming into their own and on the whole their economic and social conditions compare favourably with people of Indian origin in other countries.

#### **NEW ZEALAND**

"Applications from Indians for permanent entry are each considered on their merits, taking into account the general principle of New Zealand's immigration policy which is to admit in reasonable numbers those who can make a worthwhile economic and cultural contribution and who appear to be readily assimilable into the community. There are approximately 7,000 Indians in New Zealand."

The greater part of the Indian community is concentrated in the main urban centres, where for the most part they are engaged in small businesses such as grocery stores, importing houses or restaurants. Others, however, are employed in industry and in clerical work and other professions.

Indians enjoy the right to vote in Parliamentary and Municipal elections and do not suffer from any economic, political, legal or other disability.

Remittances made by all New Zealand residents (including Indians) from New Zealand are subject to exchange control.

#### PHILIPPINES

Subject to compliance with prescribed requirements, Indian nationals are now admitted to the Philippines as immigrants under an annual quota not exceeding 50 for each calendar year.

#### THAILAND

The annual quota is 200 and the selection is made by the Government's Immigration Division in Bangkok. No discrimination against the Indian population prevails in Thailand. Remittances out of the country are controlled by the Bank of Thailand's rules and regulations.

#### U.S.A.

Until June 1968 the U.S.A. had fixed a quota of 100 plus some not used from quotas for other countries. After that date there is no numerical limit, except for an upper limit of 20,000 which applies to all other countries as well. During 1969, there were 32,062 persons of Indian origin in the U.S.A.

There are certain categories of aliens who are excludable under Section 212 of the Immigration and Nationality Act. These exclusions apply to both immigrants and non-immigrants, although there are exceptions and certain discretionary powers vested in the Attorney-General and the Secretary of State.

There are a variety of requirements which must be met before an immigration visa can be issued. No consideration can be given to third, sixth and non-preference applicants until they obtain certification from the U.S. Department of Labour. The application can be made at a diplomatic or consular office of the United States. These offices are located in New Delhi, Bombay, Calcutta and Madras within India. Indians can compete on the same basis as national of other countries in the world for non-preference numbers. During the past six months non-preference numbers have been issued at all U.S.A., posts in India.

An immigrant, regardless of race, colour or creed, admitted into the United States as a permanent resident alien is eligible for American citizenship, if he fulfils the residence and other requirements laid down in the Immigration and Nationality Act of 1952, as amended.

There are no restrictions on the remittance of American funds abroad.

BUDGETARY POSITION OF STATES: 1970-71

			T	able 1	DIAIL	, LO	10-11	(Rs. crores)
			- 1	able 1	0 11	1 1 20 11 11	m . 1	(Ita. Crores)
Cu. s		Revenue Account		Surplus (+) or Deficit (-)	Overall Surplus (+)	Opening	Total budgetary	Additional
States	Revenue	Expendi- ture		on capital Account	or Deficit (—) (4) + (5)	balance	position (+) or (-) (Cols 6+7)	mobilisation proposals
1	2	3	4	5	6	7	8	9
1. Andhra Pradesh	265.96	266.43	- 0.47	+14.77	+14.30	-14.43	- 0·13	TON THE BOOK
2. Assam	111.03	110.69	+ 0.34	-17.22	-16.88	-24.98	-41.86	?
3. Bihar	$234 \cdot 90$	236 · 17	- 1.27	-17.89	-19.16	- 2.58	$-21 \cdot 74$	-2.40
4. Gujarat	193 · 12	188.94	+ 4.18	-12.88	<b>−</b> 8·70	$-21 \cdot 27$	$-29 \cdot 97$	0.65
5. Haryana	92.44	90.60	+ 1.84	- 8.44	- 6.60	- 5.90	-12.50	2 -0
6. Jammu & Kashm		65.26	+ 1.94	- 2.51	- 0.57	+ 2.26	+ 1.69	0.50
7. Kerala	144.47	157.95	-13.48	-12.38	$-25 \cdot 86$	-13.74	$-39 \cdot 60$	2.60
8. Madhya Pradesh	220.43	212.39	+ 8.04	$-11 \cdot 32$	<b>—</b> 3·28	- 3.19	- 6·47	1.00
9. Maharashtra 10. Mysore	432.82	426 · 25	+ 6.57	$-26 \cdot 74$	$-20 \cdot 17$	-11.85	-32.02*	5.00
	233 · 47	248.95	-15.48	+ 4.32	-11.16	+ 2.96	<b>—</b> 8⋅20	6.02
11. Orissa	126.36	143.46	-17.10	-20.20	$-37 \cdot 30$	+ 0.41	-36.89	0.02
10 D 11	154.39	134.96	+19.43	$-26 \cdot 73$	<b>−</b> 7·30	- 0.12	- 7·42	3.87
14 // 11 1 37 1	168·64 288·04	188.07	-19.43	-16.00	$-35 \cdot 43$	-27.80	-63.23	6.00
14. Tamil Nadu 15. Uttar Pradesh	455.25	296.98	- 8.94	+ 2.94	- 6.00	+ 0.55	5.45	-6.00
10 111 1 1	279.31	413.80	+41.45	-42.69	- 1.24	+ 2.17	+ 0.93	
CANADA TO AND	The state of the s	285.42	- 6.11	- 9.40	-15.51	$-25 \cdot 07$	<b>—40·58</b>	17.24
Total: All States	$3467 \cdot 83$	3466.32	+ 1.51	$-202 \cdot 37$	$-200 \cdot 86$	-142.58	$-343 \cdot 44$	17.24

<sup>\*</sup> Excludes the amount of op an market borrowings.

Table 2
USES AND SOURCES OF FUNDS: ALL STATES

(Rs. crores)

Ite	m			1969-70 (Budget)	1969-70 (Revised)	1970-71 (Budget)	
USES OF FUNDS  1. Current expenditure	S OF FUNDS 1. Current expenditure					3,418.79	3,469.32
2. Capital expenditure 3. Loans and advances					3,357·00 474·20 378·07	525·94 432·27	551 · 61 378 · 53
Total Uses					4,209 · 27	4,377.00	4,399.46
OURCES OF FUNDS  I — State sources							
1. Tax revenue	THE REAL PROPERTY.		D. Han	41	1,252.69	1,315.67	1,418-51
2. Non-tax revenue			NO DAY		758.35	809.84	861.32
3. Capital receipts (net)					9.70	26.44	-10.93
Total state sources			2,020 · 74	2,151.95	2,268 · 90		
II — Central sources :							
1. Share in taxes	and the second		TOTAL PRO	VALUE OF	489.93	613 · 26	683 · 49
2. Grants					534.93	540.07	504.51
3. Loans					782 - 06	951 · 69	741.70
Total Central sources					1,806-92	2,105.02	1,929 · 70
Total Sources Av	ailable				3,827.66	4,256 · 97	4,198.60
Surplus (+) or I	Deficit (-	-)			-381.61	-120.03	-200.86

## AWARDS AND PRIZES

INCLUDING the 1970 awards, the number of persons who have received Bharat Ratna is 14, Padma Vibhushan 51, Padma Bhushan 316 and Padma Shri 459.

The highest award Bharat Ratna is given for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

The 14 persons who have received Bharat Ratna are: Mr. Jawaharlal Nehru (1954), Mr. C. Rajagopalachari (1954), Dr. S. Radhakrishnan (1954), Dr. C. V. Raman (1954), Dr. Bhagwan Das (1955), Mr. M. Visvesvaraya (1955), Pandit Govind Ballabh Pant (1957), Dr. D. K. Karve (1958), Dr. B. C. Roy (1961), Mr. Purushottam Das Tandon (1961), Dr. Rajendra Prasad (1962), Dr. Zakir Hussain (1963), Dr. P. V. Kane (1963) and Mr. Lal Bahadur Shastri (Posthumously) 1966. For the fourth year in succession no Bharat Ratna award has been conferred.

#### 1970 R-DAY AWARDS

The seven persons who have been awarded Padma Vibhushan are:

Group Captain Suranjan Das (Posthumous); General P. P. Kumaramangalam, former Chief of the Army Staff; Lt.-General Harbakhsh Singh who retired as the G.O.C. in-C. of the army's Western Command and the four civilian recipients are Dr. Tara Chand, the distinguished historian, Dr. A. Ramaswami Mudaliar, industrialist, Dr. B. R. Sen, former director-general of the U.N. Food and Agriculture Organisation and A. L. Dias, Lieutenant-Governor, Tripura.

The 28 recipients of Padma Bhushan are:

Ahmad Jan Thirakawa, tabla player, Lucknow, Uttar Pradesh; Dr. Amiya Chakravarty, literateur, New York; Anantrao (Annasaheb) Vasudeorao Sahasrabuddhe, social worker, Wardha, Maharashtra; Bhagwantrao Annabhau Mandloi, former Chief Minister of Madhya Pradesh; Dr. Birendra Nath Ganguli, economist, Delhi; Buddhadeva Bose, novelist, Calcutta, West Bengal; Gainedi Appala Narasimha Rao, chairman of the Central Water and Power Commission; Gurram Joshuva, poet, Guntur, Andhra Pradesh; Hans Raj Gupta, Mayor of Delhi; Mrs. Hirabai Barodekar, musician, Poona, Maharashtra; Mrs. Kamala, dancer, Madras, Tamil Nadu; Dr. Krishnaswami Ramiah, agricultural scientist, New Delhi; Dr. Maharajapuram Sitaram Krishnan, geologist, Hyderabad, Andhra Pradesh; Dr. Mahesh Prasad Mehray, eye surgeon, Sitapur, Uttar Pradesh; Mulukutla Rama Brahmam, Chairman of the Madras Rofinery, Tamil Nadu; Narayan Sadoba Kajrolkar, social worker of Bombay, Maharashtra; Nitya M. Wagle, industrialist of Bombay, Maharashtra; Dr. Prem Nath Wahi, director of the Indian Council of Medical Research, New Delhi; Dr. Purushottam Kashinath Kelkar, director of the Indian Institute of Technology, Kanpur; Ramkinkar Baiz, sculptor, Santiniketan, West Bengal; Ratan Lal Joshi, journalist, New Delhi; Sombhu Mitra, dramatist, Calcutta, West Bengal; Miss Surrendra Saini, social worker, New Delhi; Dr. Syed Abdul Latif, author and writer, Hyderabad, Andhra Pradesh; Tirupur Subramaniam Avinashilingam Chettiar, educationist, Coimbatore, Tamil Nadu; Dr. Viswanatha Satyanarayana, literateur, Vijayawada, Andhra Pradesh; Vivekanada Mukhopadhyaya, journalist, Calcutta, West Bengal and Yashpal, writer, Lucknow, Uttar Pradesh.

The fourth national honour Padma Shri has been awarded to 69 persons. They are:

Abdul Halim Jaffar Khan, sitar player, Bombay, Maharashtra; Dr. Ajit Kumar Basu, SSKM Hospital, Calcutta. West Bengal; Mrs. Alice Wilma Khan, social worker, Bombay, Maharashtra; Ananda Chandra Barua, poet, Jorhat, Assam; Avinash Anandrai Vyas, music director, Gujarat; Dr. Badri Narain Sinha, orthopaedic surgeon, Lucknow, Uttar Pradesh; Bishen Singh Bedi, cricketer. New Delhi ; Dr. Chandran David Srinivasagam Devanesan, educationist, Madras, Tamil Nadu; Dr. Colathur Gopalan, Indian Council of Medical Research, Hyderabad, Andhra Pradesh; Dr. Cuddalore Subrahmania Chetty Sadasivan, Government Hospital, Madras, Tamil Nadu; Mrs. Damayanti Joshi, dancer, Bombay, Maharashtra; Dattatraya Mahadeo Dahanukar, industrialist, Bombay, Maharashtra; Deoram Sayajirao (Kakasaheb) Wagh, social worker, Nasik, Maharashtra; Devendra Nath Samant, social worker, Chaibasa, Bihar; Din Dayal, principal, Delhi Public School, New Delhi; Erapally Anantharao Srinivasa Prasanna, cricketer, Bangalore, Mysore; Ezra Mir, film producer, Bombay, Maharashtra; Ghanshyam Das Goyal, producer, Bombay, Manarashira; Ghantsayam Das Goyai, industrialist, Balsamand, Haryana; Ghantasala Venkateswara Rao, musician, Madras, Tamil Nadu; Dr. Ghulam Ahmed Bandey, director of sheep breeding and sheep development, Government of Jammu and Kashmir; Govind Ram Hada, industrialist, Calcutta, West Bengal; Gurdas Mal, superintendent of police, Contral Buseau of Investigation Minister of Harva Africa. Central Bureau of Investigation, Ministry of Home Affairs, Union Government; Mrs. Indumati Chimanlal Sheth, social worker, Ahmedabad, Gujarat; Jiwan Ram Jairamdas, social worker, New Delhi; Kalamandalam Krishnan Nair, dancer, Tripunitura, Kerala; Karl Jamshed Khandalavala, art critic, Bombay, Maharashtra; Mrs. Kodumudi Balambal Sundarambal, musician, Madras, Tamil Nadu; Kumud Ranjan Mallick, poet, Kogram, district Burdwan, West Bengal; Laxman Swarup Darbari, director, Ministry of Foreign Trade, Union Government; Miss Lilian Godfreda Lutter, principal of the Maharani Gayatridevi Girls Public School, Jaipur, Rajasthan; Maisnam Amubi Singh, artiste, Manipur; Mallikarjuna Mansur, music director, Dharwar, Mysore; Miss Maniben Kara, social worker, Bombay, Maharashtra; Mohan Naik, social worker, Nimakhandi (Ganjam), Orissa; M. Krishnan, naturalist, Madras, Tamil Nadu; Narain Singh, superintendent of police, Bharatpur, Rajasthan; Pandita Sumatiben Nemchand Shah, social worker, Sholapur, Maharashtra; Pankaj Kumar Mullick, musician, Calcutta, West Bengal; Dr. Perugu Siva Reddy, eye surgeon, Hyderabad, Andhra Pradesh; Phaneshwar Nath Renu, novelist, Awarahi (Purnea), Bihar; Phul Chand, industrialist, Deorala, Haryana; Dr. Pidatala Narasimhayya, educationist, Mysore; Dr. Pisharoth Rama Pisharoty, professor, physical research laboratory, Ahmedabad; Prem Dhawan, poet, Bombay, Maharashtra; Dr. Prem Prakash Sahni, dental surgeon, New Delhi; Purushottam Pandurang (Baburao) Gokhale, social worker, Karad, Maharashtra; P. Lal, poet, Calcutta, West Bengal; Rajendra Kumar, cinema actor, Bombay, Maharashtra; Dr. Rajendra Vir Singh, principal of the King George's Medical College, Lucknow; Ram Chatur Mallik, musician, Darbhanga, Bihar; Ramaswamy Ganesh, cinema actor, Madras, Tamil Nadu; Dr. Ramesh Tribhuvandas Doshi, agro-economist, Bombay, Maharashtra; Mrs. Ratna Fabri, designer, New Delhi; Relangi Venkataramaiah, cinema artiste, Madras, Tamil Nadu; Ritwik Ghatak, film director, Calcutta, West Bengal; Siddheshwar Shastri Chitrao, Sanskrit scholar, Poona, Maharashtra; Sikander Ali Wajd, Urdu poet, Bombay, Maharashtra; Sohan Lal Dwivedi, Hindi poet, Bindki (Fatehpur), Uttar Pradesh;

Sukumar Bose, curator of paintings, Rashtrapati Bhavan, New Delhi; Dr. Sunil Kumar Bhattacharya, director, Institute of Port Management, Calcutta; Syed Masud Hasan Rizvi, Persian scholar, Lucknow, Uttar Pradesh; Syed Mohammad Moinul Haq, sportsman, Bankipore (Patna), Bihar; T. R. Mahalingam, flute player, Bangalore; Dr. Vadlamudi Venkata Rao, educationist, Gauhati, Assam; Vedantam Satyanarayana Sarma, dancer, Kuchipudi, Andhra Pradesh; Vijayaraghava Rao, music director, Films Division, Government of India, Bombay; and Weer Rajendra Rishi, linguist, Ministry of External Affairs, Union Government.

#### GALLANTRY AWARDS (1970)

Recipients of the nine Param Vishisth Seva Medal are: Lt.-Gen. J. S. Aurora, Lt.-Gen. Ajit Singh, Vice-Admiral N. Krishnan, Maj.-Gen. N. C. Rawlley, Maj.-Gen. Sagat Singh, Maj-Gen. Unrao Singh, Maj.-Gen. M. G. Hazari, Rear-Admiral B. R. Singh and Air Vice-Marshal Ajit Nath.

Kirti Chakra recipient: Sham Sundar, A.S.M., Northern Railway.

Other gallantry awards and the number of recipients under each category respectively are: Ati Vishisht Seva Medal 32; Saurya Chakra 15; Sena Medal 32; Naosena Medal 9; Vayu Sena Medal 34; and Vishisht Seva Medal 69.

N. P. Kolah, formerly Chief Engineer of the Port Trust tug St. Arjun (posthumously) was awarded a Gold medal, who lost his life in an attempt to save his colleagues during an explosion on the tug.

### NATIONAL AWARDS (1968)

The following is the list of winners:-

Shram Vir Awards—Class A: (Based on outstanding suggestions made by workers): Cash prize of Rs. 2,000 each: N. Acharya and A. K. Chatterjee, Rourkela Steel; N. J. Waples, 509, Army Base Workshop, Agra; R. K. Bhambri, Tata Iron & Steel Co. Ltd., Jamshedpur and Debobrato Dutta Roy, Bhilai Steel Plant.

Shram Vir Awards—Class B: Cash prize of Rs. 1,000 each: R. Ramachandra Sharma, Kurasia Colliery, National Coal Development Corporation; M. G. Patel and K. V. Kannan, Rourkela Steel; Syed Alamdar Hussain Rizvi, Heavy Electricals, Bhopal; Ajit Kumar Guha and K. P. S. Unni, Ordnance Factory, Ambarnath; Prabhu Dayal, 509, Army Base Workshop, Agra; Surendra Kumar Dutta, Tata Iron & Steel Co. Ltd., Jamshedpur; Purushothaman, I.T.I. Ltd., Bangalore; Teja Singh Panesar, 512, Army Base Workshop, Kirkee and P. S. Dhawan, F. C. I. Ltd., Naya Nangal.

Shram Vir Awards—Class C: Cash prize of Rs. 500 each were given to 19 workers selected from different centres (both private and public undertakings).

National Safety Awards—Scheme I List of Winners (Based on highest percentage reduction in frequency rate)—Cash Prize of Rs. 2,500 and a cup each: 509 Army Base Workshop, Agra (U.P.); Shriram Vinyl & Chemical Industries, Kota (Rajasthan); High Explosives Factory, Kirkee, Poona (Maharashtra); Fertilizer Plant, Hindustan Steel Limited, Rourkela (Orissa); Bata Shoe Company Pvt. Ltd., Faridabad (Haryana); Madras Cements Limited, Tulukkapatti R.S. (Tamil Nadu); Hindustan Brown Boveri Ltd., Faridabad (Haryana); The Tata Engineering & Locomotive Company Ltd., Jamshedpur (Bihar); The Premier Automobiles Ltd., Kurla, Bombay; Sree Sivakami Mills Ltd., Thenur; Samayanallur (Tamil Nadu); The Azam Jahi Mills Ltd.

Warangal (Andhra Pradesh); The Premier Mills (Cbe) Ltd., Pulankinar P.O. (Tamil Nadu); Fertilizer Corporation of India Ltd. Naya Nangal (Punjab); Rifle Factory, Ishapore (West Bengal) and Hindustan Steel Ltd., Durgapur Steel Plant, Durgapur (West Bangal).

Scheme II: Winners (Based on lowest frequency rate in industry)—Cash Prize of Rs. 2,500 and a running Trophy each: Sri Ramakrishna Mills (Coimbatore) Ltd., (Tamil Nadu); Indian Explosives Ltd., Gomia (Bihar); Bata Shoe Co. Pvt. Ltd., Faridabad (Haryana); Mining & Allied Machinery Corporation, Durgapur (West Bengal); 509 Army Base Workshop, Agra (U.P.); Integral Coach Factory, Perambur, Madras; State Transport Central Workshop, Madras; Metal & Steel Factory, P.O. Ichapur-Nawabgunj (West Bengal); Rifle Factory, Ishapore (West Bengal); Foundry Forge, Heavy Engineering Corporation Ltd., Ranchi (Bihar) and Madras Cements Ltd., Tulukkapatti R.S. (Tamil Nadu).

Scheme III: Winners (Based on longest accidents-free period) Cash Prize of Rs. 2,500 each and Cups to Nos, 1, 2, 4, 5 & 9:1. Sri Ramakrishna Mills (Coimbatore) Ltd., 2. Ganapathy P.O. (Tamil Nadu); 2. Hindustan Lever Ltd., Sewri, Bombay-15; 3. Indian Oil Corporation Ltd., Gujarat Refinery, Baroda (Gujarat); 4. Mining & Allied Machinery Corporation, Durgapur (West Bengal); 5. 509 Army Base Workshop, Agra (U.P.); 6. Integral Coach Factory, Perambur, Madras (Tamil Nadu); 7. State Transport Central Workshop, Madras (Tamil Nadu); 8. Alloy Steels Project, Durgapur (West Bengal); 9. Riffle Factory, Ishapore (West Bengal) and 10. Madras Cements Ltd., Tulukkapatti R.S. (Tamil Nadu).

Export Promotion Awards (1969): The first set of national awards for outstanding export performance were presented on Nov. 28, 1969 in the form of rotating trophies. Each award winner received a smaller replica of the trophy for retention along with a citation.

The chief executives of the nine award winning firms and institutions respectively were: K. T. Chandy (Hindustan Steel), V. M. Elias (Indo-Marine Agencies, Kerala Pvt. Ltd.), M. S. P. Rajah (Partner, Hill Tiller, Mangalore), Gopalkrishna Singhania (Raymond Woollen Mills), A. Nagappa Chettiar (Indian Leather Corpn. Pvt. Ltd.), S. Moolgaokar (Tata Exports Ltd.), J. E. Sawtell (Braithwaite), A. L. Mudaliar (Imkemex India), and V. C. Patel (Central Bank of India).

President's Police Medals (1969): Recipients— President's police and fire services medal: Laxman Swarup Darbari, Mohammad Habibullah Jeddy, Y. Sadasiva Avadhani Shamanna and Dadi Hoshang Crawford.

Recipients — police medal: M. P. Vishindas Hingorani, Arun Bikash Chaudhury, John Lobo, Mihir Kumar Jha, Harbans Singh, Ram Chandra, Ved Prakash, Badri Sharma, Har Bhagwan Das Baijal, Baburao Mhasuji Wagh, Sheotaj Singh, Kommineni Venkateswarlu, Narinder Nath Tuli, Dattatraya Shankar Deshpande, Baldev Raj Puri, N. Ramanathan, S. N. Basu Roy Chowdhury, Rangaswamy Venkitaswamy and J. R. Sawant.

Home Ministers' gold medal (for the best investigating officer of the CBI): Srikishan Lal and Dattatraya Shankar Deshpande.

Prohibition Trophy: The trophy for the best work in the field of prohibition during 1969 was awarded to the prohibition intelligence division of Bombay.

Krishi Pandit: The award winners are entitled for Rs. 3,000 for the first prize, Rs. 1,200 for the second and Rs. 800 for the third. Besides, the winners of the first prize are awarded the certificate and title of Krishi Pandit.

Winners (Paddy crop, Kharif 1968-69): Narayan Aba Patil (Maharashtra), first, Ramji Dhondi Patil (Maharashtra) second, Manibhai Somapbhai Patel (Gujarat) third.

Winners (Jowar Crop) 1967-68: Sitaram Eknath Dhumal (Maharashtra) first, K. Rangasamy Gounder (Tamil Nadu) second, A. P. Subbaraya Gounder (Tamil Nadu) third.

Winners (Wheat crop) 1967-68: Baburao Sukhdev Patil (Maharashtra) first, Channabhai Bhovanbhai Patil (Gujarat) second, and Harpal Singh (Uttar Pradesh) third.

Winners — Southern Region (Sugarcane) (1967-68): Janardan Yeshwantrao Tekawadi (Maharashtra) first, Ramesh Janardhan Tekawadi (Maharashtra) second, Dhanpal Devappa Ketkale (Maharashtra) third.

Winners — Northern Region (Sugarcane): Narayan Singh (M.P.) first, Sultan Singh (M.P.) second, Ganshyam Giri (U.P.) third.

Sugar-cane Crop: The first prize winner is awarded a cash prize of Rs. 2,500 and a gold plated medal, the second prize winners Rs. 1,500 and a silver medal and the third prize winner Rs. 1,000 and a bronze medal.

Besides the individual prizes, running silver shields are also awarded to the States recording the highest average yield in each region.

#### Sahitya Akademi Awards 1969

The award consists of a casket containing an inscribed copper plate and a cheque for Rs. 5,000.

Language, title of the book and name of the author respectively are:

1. Assamese: Manchlekha (Prof. Atul Chandra Hazarika); 2. Bengali: Mohini Araal (Manindra Ray); 3. English: An artist in life (Dr. Nihar-Ranjan Ray); 4. Gujarati: Kulkathao (Swami Anand); 5. Kannada: Karnatak Sanskriti Sameekshe (Dr. H. Tipperudraswami); 6. Kashmiri: Ka': Shri Zab': Ny Hund Alaaqavaad Phera (Abdul Khaliq Tak Zainagiri); 7. Maithili: Du Patra (Upendranath Jha); 8. Malayalam: Kavile Pattu (Edasseri Govindan Nair); 9. Marathi: Natyacharya Deval (S. N. Banhatti); 10. Oriya: Nila Saila (Surendra Mohanty); 11. Punjab: Na Dhuppen Na Chhaven (Dr. Harbhajan Singh); 12. Sindhi: Sindhi Nasr Ji (M. U. Malkani); 13. Tamil: Pichirandaiyar (late Bharati Dasan); 14. Telugu: Mahatma Katha (Tummala Seetharamamurthy); 15. Urdu: Bisati-i-Raqs (late Makhdum Mohiyuddin); 16. Hindi: Rag Darbari (Shrilal Shukla).

The awards relate to books first published between January 1, 1966, and Deember 31, 1968.

The selection for the awards was made on Feb. 27, 1970 by the executive board on the basis of the recommendations received from the Akademi's advisers in the language concerned.

Books for Neo-Literates: Twenty-one authors have won awards in the 14th prize competition of books for neo-literates, organised by the Ministry of education and Youth Services. Each award is of Rs. 1,000.

The titles of the book manuscripts together with their languages, names of the author are: (1) Desh Hamara, Desh Hamara (Hindi), Jal Prakash Bharti; (2) Jai Javahar (Hindi), Virender Misra; (3) Phalon Ka Raja Aam, (Hindi), Hari Krishan Tailang; (4) Rote Rogi, Hanste Phool (Hindi), Mohit Roy; (5) Rashtriya Gaurav ke Chin (Hindi), Dr. Hari Krishan Devsare; (6) Hariali Ka Ek Tukura (Hindi), Balraj Komal; (7) Mor Gawar

Sadhu (Assamese), Idrish Ali; (8) Panchayati Raj (Bengali), Direndranath Bera; (9) Kutumb Niyojan (Gujarati), Pitamber Patel; (10) Jantu Ane Rogo (Gujarati), B. L. Desai (11) Bhagyada Bagilu (Kamnada), Ishwar Chandra Chintamani; (12) Vethi Handi Malar (Kashmiri), S. L. Sadhu; (13) Manushyan-Innale, Innu, Naale—provisional—(Malayalam), Thykootom N. Purushothaman; (14) Zade Zude Bolatali (Marathi), 11 authors; (15) Pandurang Pavala (Marathi), V B. Argade, Poona; (16) Ganga (Oriya) Durga Prasad Patnaik; (17) Dulhe Beran Da Kujh Nahin Gia (Punjabi), Prof. Gurdial Singh Phul; (18) Lal Bahadur Shastri (Sindhi), Prof. Dayal Asha; (19) Payanathin Kathai (Tamil), P. N. Appuswamy; (20) Grama Rajyam (Telugu), K. Maheswar Rao; (21) Gandhiji Ki Kahani (Urdu), Safdar Hosain.

## PRIZES TO HINDI WRITERS

Eleven books have been selected for the award of prizes to Hindi writers of non-Hindi speaking States for the year 1969-70. Four books get the first prize and seven the second. The names of the books with the authors and their mother-tongue are:

First Prize — Rs. 1,000 each: Yaden by Smt. Padmini Menon (Malayalam); Hamari Aan Hamari Shan by Yadunath Thatte (Marathi); Sonali Di by Smt. Rajani Panickar (Punjabi) and Bees Sal Ke Desh Main Bees Din Kee Yatra by R. Sourirajan (Tamil).

Second Prize—Rs. 500 each: Punaravritti by Smt. Bharati Vaidya (Gujarati); Galpa Vihar by S. Ramachandra (Kannada); Shrimati Kamala Nehru by Pandita Shitamma Vellee (Kannada); Gandhi Saptak by Pt. Narayana Dev (Malayalam); Aage Ka Rasta by B. B. Pearle (Marathi); Kanch Ke Tukre by Prof. K. Jagjit Singh (Punjabi) and Bhoron Ka Pahar by Dr. Karan Rajshesh (Telugu).

## U. G. C. SCHOLARSHIPS (1969-70)

Scholarships for research work in Sciences and Humanities including Social Sciences: 600 research scholarships of the value of Rs. 250/- p. m. were allocated to 69 Universities and Institutions deemed to be Universities to candidates who take up research work at doctorate level in Sciences and Humanities including Social Sciences. The selection for award of these scholarships, which are tenable for three years, is made by the Universities Institutions concerned.

Scholarships for Honours and Postgraduate Studies in Arabic and Persian: 18 candidates have been awarded scholarships of the value of Rs. 1,200/- p. a. for Honours/Postgraduate Studies in Arabic Persian.

Scholarships for Postgraduate Studies to the students of North-Eastern Region of India: 22 candidates have been awarded scholarships of the value of Rs. 120/- p. m. for postgraduate studies at different universities and institutions of the country. Subject-wise details are: Political Science — 5; History — 3; Physics — 3; Sociology — 3; Chemistry — 2; Economics — 2; Education — 2; English — 1; Mathematics — 1.

Senior Research Fellowships in Sciences and Humanities including Social Sciences: 54 candidates have been selected for Senior Research Fellowships of the value of Rs. 500/- p. m. for post-doctoral research work in Sciences and Humanities including Social Sciences in universities and institutions in the country. Each fellowship also carries an annual contingency grant of Rs. 1,000. The Senior Fellowships are tenable for two years with provision for extension to the 3rd year in special cases. Subject-wise details of awards made are: (1) Chemistry—

9; (2) Physics -4; (3) Zoology -4; (4) Mathematics -3; (5) Botany -3; (6) Agriculture -3; (7) Sanskrit -3; (8) Hindi -3; (9) Geography -2; (10) History -2; (11) Economics -2; (12) Geo-Physics -1; (13) Geology -1; (14) Statistics -1; (15) Anthropology, -1; (16) Physiology -1; (17) Urdu -1; (18) Persian -1; (19) Linguistics -1; (20) Telugu -1; (21) A. I. History & Culture -1; (22) Islamic History & Culture -1; (23) Archaeology -1; (24) Pol. Science -1; (25) Sociology -1; (26) Philosophy -1; (27) Fine Arts -1.

Junior Research Fellowships in Sciences and Humanities including Social Sciences: 177 candidates have been selected for award of Junior Research Fellowships of the value of Rs. 300 p.m. for research work in Sciences and Humanities including Social Sciences. Each fellowship also carries an annual contingency grant of Rs. 1,000. These fellowships are tenable for a period for three years. Subject-wise details of awards are: (1) Chemistry—30; (2) Physics—19; (3) Botany—16; (4) Geology—11; (5) Mathematics—10; (6) Agriculture—9; (7) Sanskrit—8; (8) Hindi—7; (9) Geography—6; (10) Bio-Chemistry—6; (11) Zoology—6; (12) Archaeology—5; (13) Philosophy—5; (14) Pol. Science—4; (15) English—3; (16) Physiology—2; (19) Microbiology—2; (20) Economics—2; (21) Urdu—2; (22) Persian—2; (23) Linguistics—2; (24) Psychology—2; (25) Statistics—1; (26) History—1; (27) Sociology—1; (28) Fine Arts—1; (29) Comparative Literature—1; (30) Bengali—1; (31) Arabic—1; (32) Tamil—1; (33) Maithili—1; (34) Malayalam—1; (35) Education—1; (36) Anthropology—1.

Research Fellowships in Engineering & Technology: 47 candidates have been selected for award of fellowships of the value of Rs. 400 p.m. for research work in Engineering and Technological subjects in universities and approved institutions. These fellowships carry a contingency grant of Rs. 1,000 p.a. and are tenable for a period of two years with provision for extension by one year in special cases. Subject-wise details are: (1) Civil Engg. —10; (2) Electric Engg. —10; (3) Mechanical Engg. —8; (4) Electronic & Tele-Communication —6; (5) Pharmacy —6; (6) Applied Physics —2; (7) Aeronautical Engg. —2; (8) Glass Technology —1; (9) Ceramic Technology —1; (10) Plastics & Polymer Technology —1.

Utilization of services of retired teachers: With a view to enabling the universities and colleges to avail of the services of outstanding retired teachers towards teaching and research work, the University Grants Commission selected 21 teachers for first award during 1969-70. The award carries an honorarium of Rs. 6,000 p.a. and an annual contingency grant of Rs. 1,000. The details of persons selected during 1969-70 (first award) are: Sanskrit: K. G. Goswami (Calcutta University); G. C. Jhala (St. Xavier's College, Bombay); Prakrit: Dr. J. C. Jain (Ramnarain Ruia College, Bombay); Hindi: P. V. Chalapateswara Rao (Pachaiyappa's College, Madras); R. G. Kulkarni (Mysore University); English: Prof. C. P. K. Tharagan (Kerala University); Malayalam: P. U. Ulahannan Mappila (St Berchman's College, Changanachery); Drawing & Painting: V. K. Shukla (Banasthali Vidyapith, Rajasthan); History: Dr. A. C. Banerjee (Jadavpur University); P. Mukherjee (Utkal University); Political Science: Dr. S. R. Sharma (Jiwaji University); Law: Prof. Hafeezul Rehman (A.M.U.); V. V. Deshpande (B.H.U.); Physics: Dr. M. W. Chiplonkar (Poona University); Chemistry: Dr. W. V. Bhagwar (Holkar Science College Undore). Dr. D. P. D. Murther (Andhre University) College, Indore); Dr. P. B. R. Murthy (Andhra University); Dr. P. C. Rakshit (R. K. Mission College, Narendrapur)

Bio-Chemistry: Dr. S. C. Roy (Calcutta University); Botany: Dr. I. M. Rao (Sri Venkateswara University); Geology: Dr. S. Deb (Jadavpur University); Electrical Engineering: Prof. S. K. Chatterjee (Indian Institute of Science, Bangalore).

Financial assistance to teachers in Universities and Colleges for research/learned work in Sciences and Humanities including Social Sciences: The University Grants Commission sanctioned a total grant of Rs. 6,15,900 to 616 teachers during 1969-70 to enable them to obtain books, chemicals, apparatus etc. needed by them in connection with their research work.

### UNESCO Prize Competition for Books

The Seventh UNESCO Competition of Best Manuscripts for the New Reading Public held in 1969, carried 16 prizes of Rs. 1,400 each, but only 15 prizes have been actually awarded. The best of the prize-winning manuscripts under the seventh competition with title of the book, language and name of the author respectively are:

Brahmand Yatra Shuru Ho Gaee (Hindi) Ram Sarup Chaturvedi; Bharat ke Vikas ki Jhunki (Hindi) Ram Chandra Singh; Bhartiya Nari Pragati ke Path Par (Hindi) Smt. Rajni Panicker; Ek Spatik ke Bis Pahlu (Hindi) H. Duraiswami; Anant Akash Athah Sagar (Hindi) Jai Prakash Bharti & Sham Sunder Sharma; Bijnaner Bichitra Barta (Bengali) Dr. Mrityanjay Prasad Guha; Manva Vikasa (Kannada) H. K. Sharada Prasad; Aadivasikaludey Koode (Malayalam) K. Panoor; Subodh Katha (Marathi) Dr. Sitaram Ganesh Desai; Annta Nahi (Provisional) (Oriya) DurgaPrasad Patnaik; Ao Sikhie Jivan Jach (Punjabi) S. S. Amole; Shal Ahira Lal Jaman (Sindhi) Prof. Dayal Asha; Marangalin Kathai (Tamil) Naga Muthiah; Varisa Gulo-Viplavat-Maka Parinalmalu (Telugu) K. S. Reddi; Hamara Jism (Urdu) Ikram Ahmed.

In all 77 books have been awarded in the seven competitions.

# SHANKAR'S INTERNATIONAL CHILDREN'S COMPETITION 1968

The President's Gold Medal for the best painting in Shankar's International Children's Competition 1968, has been awarded to fifteen-year old girl Lena Kisel of the Soviet Union for her painting "The Tram".

The Vice-President's Gold Medal for the best literary entry goes to Janet Hursthouse Atkinson, a thirteen-year old girl from New Zealand, for her story "The Fantail".

Twenty-two children from 18 countries have won "Nehru Awards" (gold medals). The countries are:—Argentina—1, Australia—1, Belgium—1, Britain—1, Bulgaria—1, Canada—1, Republic of China—1, Czechoslovakia—1, France—1, German Democratic Republic—1, Federal Republic of Germany—1, Iraq—1, Japan—2, Republic of Korea—2, Poland—1, Rumania—1, USA.—1, and India—3.

As many as 410 prizes in all have been awarded in the twelve age groups. Of these, 374 are for paintings and 36 for written work.

Among the Nehru Award winners are Mohit P. Randeria (Delhi), Salil G. Bhatt (Bombay), and Chauhan Mohammed Hanif Ibrahimbhai (Baroda).

#### ART

National Awards for Master-craftsmen: Seventeen craftsmen representing various crafts were given awards for the year 1970. Each one receives Rs. 1,000 in cash, a brass tablet and an angavastram.

The scheme was instituted by the All-India Handicrafts Board in 1965.

Lalit Kala Awards: Ten artists have been selected for awards of the National Exhibition of Art, 1970.

They are Balbir Singh Katt (sun-flower—cement), S. Nandgopal (a Naga symbol—copper), Ishwarchand Gupta (sursa badh—terracotta), Jayant Parikh (behind the screen—coil), Ishwar Sagara (hungry souls—oil), D. K. Das Gupta (symbols—oil), Paramjit Singh (the stone on the wall—oil), Prem Nath (rainy landscape—oil), Jagmohan Chopra (composition I—graphic) and Bimal Banarjee (spiritual nature—graphic).

#### MUSIC, DANCE, DRAMA

The Sangeet Natak Akademi, New Delhi makes annual awards to outstanding artists in the fields of dance, drama and music. The winners are selected by its General Council. The Awards presented by the President consist of a shawl, and a memento each to Fellows and silver plaque and Rs. 5.000 cash each to Awardees.

Below is the list of Fellows and Award-winners of the Akademi Awards 1969.

#### Awards

Dance: Ojha Thangjam Chaoba Singh (Manipuri), C. Kunchu Nair (Kathakali), Mrs. Sitara Devi (Bharata Natyam) and K. Swaminatha Pillai (for teaching).

Drama: Gahan Chandra Goswami (traditional theatre—Ankia Nat), Habib Tanvir (play production—Urdu), Manmatha Ray (play writing—Bengali), and N. N. Pillai (acting—Malayalam).

Music: Mohammad Dabir Khan (Hindustani instrumental — veena), Ram Chatur Mallick (Hindustani vocal — Devakottai), A. Narayana Iyengar (Karnatak instrumental — veena), and Dandapani Desigar (Karnatak vocal).

#### CHILDREN

The Indian Council for Child Welfare has selected seven children for national awards for 1969 for outstanding courage.

The Award winners are: Sonilal (Delhi); Pushan Sirkar (Calcutta); Yaikhom Shantibala Devi (Imphal); Thoudam Hemachandra Singh (Imphal); Narayan Prasad Das (Cuttack); Louis Thomas (Trivandrum) and Narasamma (Bangalore).

#### GRAM SEVAKS/SEVIKAS (1967-68)

The awards relate to the 10th All India Prize Competition among Gram Sevaks at the National Level. The First Prize has been awarded to G. A. Khan, Block Bhatkali, District Amravati, Maharashtra, and the Second Prize was won by Krishanpuri, Block Sumerpur, District Pali, Rajasthan. These awards are given for outstanding work at the National, State and District Level. Among the Union Territories the State Level prize has been won by M. Madalai Mutha, Block Villiamor, Pondicherry and the 2nd prize was won by Sammar Singh Mann, Block Mehrauli, Delhi.

Among the Union Territories Smt. Sangshil Kartu, Block Thoubal, Manipur was awarded 1st Prize. The prizes for the best Gram Sevak/Sevika were awarded in the shape of National Defence Certificates and a pedestal cycle along with a certificate of Merit.

Village Barihat, Block Dehri, Distt. Sahabad, Bihar won the 1st Prize and the 2nd Prize was awarded to the village Khinmini, Block Shamsabad, Distt. Karrakhabad, Uttar Pradesh. Village Chattarpur, Block Mehrauli won the 1st Prize at the Union Territories Level.

The items of work for which the competitions are organised relate to agriculture, production, animal husbandry, co-operation and panchayats etc. in the case of gram sevaks, and agriculture, animal husbandry, environmental sanitation, nutrition, and home improvement, etc. in the case of Gram Sevikas.

## PRINTING AND DESIGNING

List of the 13th National Awards in 26 categories for excellence in printing and designing of books and other publications for 1967 was given in the 1969 Directory. The awards for 1968 had not been announced at the time of going to press.

#### SPORTS

The Government of India have made selections for the "Arjuna Awards" to the Sportsmen of the year 1969, on the basis of outstanding contribution made to enhance the glory of the game during the year. These awards were instituted in 1961.

The Sportsmen who were awarded Arjuna Awards for 1969 were: Captain Joginder Singh, Kumari Manjit Walia (Athletics); Naib Subedar Gurdial Singh (Basketball); Havildar D. Swamy (Boxing); E. A. S. Prasanna (Cricket); Cadet Balbir Singh (Hockey); Princess Rajyashree Kumari of Bikaner (Shooting).

# AWARDS FOR HANDICAPPED-1970

The first national awards for three most efficient physically-handicapped employees and three outstanding employers of the physically handicapped were announced on Jan. 25, 1970.

The Union Government has instituted three national awards for outstanding employers of the blind, the deaf and the orthopaedically handicapped. Similarly, one award each would be given to the most efficient blind, deaf and orthopaedically handicapped employee. Every employer selected for the award will get a citation and a shield. Every employee will receive a cash prize of Rs. 500 and a citation.

The employers who are given the national award this year are: Vazir Sultan Tobacco Co. Ltd., Hyderabad, Mukim Traders, New Cotton Mills, Ahmedabad, and Hindustan Klockner Switchgear Ltd., Bombay.

The employees who are given the national award are:
Mrs. Prathibha Arya, teacher, Rashtriya Virjanand
Andh Kanya Vidyalaya, New Rajinder Nagar, New
Delhi; Ashok Kumar Aggarwal, scientist, National Physical Laboratory, New Delhi; and Narsinbhai Chhaganlal
Patel, chief mechanic, Ahmedabad.

## AWARDS FOR INVENTIONS

The Invention Promotion Board has on Jan. 25, 1970 declared ten awards totalling Rs. 13,000. The prize winning persons together with their inventions and the amount awarded are as follows:

The HT lecturer, Bipin Gulab Bhai Desai, for developing a "single phase induction motor with a symmetrical end ring rotor—complete with rotor positioning device; Rs. 3,500.

S. K. Khanna, assistant engineer, division of agricultural engineering, Indian Agricultural Research Institute, New Delhi, for developing the "Uusa Rexaper", incorporating novel features like mechanical conveying and building with provision for drive by tractor or bullocks; Rs. 2,000.

Ram Yadav Kulshrestha, station engineer, All India Radio, Indore, for developing a "precise pendulum and transistorised master clock system"; Rs. 2,000.

- S. C. Katoch of Roorkee University, for developing a "pneumatic concrete placer" for placing concrete in position for tunnel lining and in all inaccessible places by means of compressed air; Rs. 1,000.
- V. P. Kulkarni of Poona, for developing a "centrifugal clutch snap action switch" for single phase motors; Rs. 1,000.
- U. S. Darshane of the Virus Research Centre, Poona, for developing a "virus lyophilizer" used for freeze drying of biological products; Rs. 1,000.

Om Prakash Saini of Durg (M.P.) for developing an "auto-clean gas burner for pulverised fuel system"; Rs. 1,000.

- U. B. Hanumantha Rao of Hyderabad, for developing "padma-Bhramaram" a tool for tye and dye designs in weaving; Rs. 500.
- G. R. Gokhale of Poona, for developing a "trolley-cumoperation table" for smooth and easy movements for wounded and ailing animals; Rs. 500.
- N. Palaniandy of Tiruchirapally (Tamil Nadu), for developing a "cooking range", utilising waste organic oil in combination with water drops on a pre-heated plate, thereby obtaining a high degree of temperature at the minimum cost of fuel; Rs. 500.

The Invention Promotion Board grants awards ranging from Rs. 500 to Rs. 10,000 to artisans, technologists, engineers and individuals for outstanding inventions.

So far the Board has given 239 awards totalling Rs. 2,28,150 and financial assistance to the tune of Rs. 5,35,254 for the development of 297 items.

#### AWARDS FOR SCIENTISTS

Five scientists were awarded the National Physical Laboratory award of merit for 1970 — a sum of Rs. 2,000 — for developing and making the electrostatic photocopying machine.

The winners: Dr. P. C. Mehendru, Dr. D. C. Parashar, Dr. G. D. Sootha, Davendra Singh and Narendra Kumar.

#### **NEHRU AWARDS**

Jawaharlal Nehru Award for International Understanding: This is administered by the Indian Council for Cultural Relations, New Delhi.

The Award is given for outstanding contribution to the promotion of international understanding, goodwill and friendship among peoples of the world and is open to all persons, regardless of nationality, race, creed or sex. There shall be one Award each year and it shall carry an amount of Rs. I lakh in cash and a citation. The Award may be divided between two persons who are considered by the Jury to be equally deserving of recognition in a given year.

The fourth distinguished man to receive the award (1968) is the world famous yiolinist, Yehudi Menuhin.

Nehru Literacy Award (1969): The second Nehru Literacy award for outstanding contribution in the field of adult literacy was presented to Mrs. Kulsum Sayani, Vice-President, Bombay City Social Education Committee.

The award has been instituted by the Indian Adult Education Association, the only all-India voluntary organisation for the promotion of adult education.

Nehru Prize for Russians: The prize was started by the Indian Government in 1967. It is annually awarded to Soviet literary and art workers who contribute to the strengthening of friendship and understanding between the people of the USSR and India. Prizes for 1968 were awarded to B. G. Gafurov (Scholar), Y. Vuchetich (Sculptor), A. I. Shifman (Author), Madame Nataliya Guseva (Indologist), and Vatsis Reimeris (Poet).

#### MISCELLANEOUS AWARDS

FICCI Awards (1969): Awards for distinguished service in the fields of agriculture, export promotion, family planning and industrial relations were given to the following:

Agriculture: B. K. S. Jain, Manager, Agro-Industrial Development, Voltas Limited, Bombay; Export promotion: M/s. Bharat Steel Tubes Ltd., New Delhi; Family planning: M/s. Hindoostan Spinning and Weaving Mills Co. Ltd., Bombay; Industrial relations: M/s. Hindoostan Spinning and Weaving Mills Co. Ltd., Bombay.

Sir P. C. Ray Award: The Planning and Development division of the Fertilizer Corporation of India has been awarded the Sir P. C. Ray award for the year 1969 for its outstanding contribution to the development of catalyst technology relating to the Fertilizer Industry.

Metallurgists' Award: V. K. Bhandari (Calcutta), Dr. P. K. Jena (Varanasi), B. K. Mazumdar (Dhanbad), Dr. G. Mukherjee (Durgapur), Balwant Singh (Jamshedpur) and S. P. Prothia (Bhilai) have been judged as best metallurgists and have been awarded Rs. 3,000 each.

Gandhi National Award (1969): A cash prize of Rs. 1,500 and a copper plate with an inscription has been awarded to Sarvodaya educationist Dada Dharmadhikari as a non-Hindi speaking person serving the cause of Hindi.

Raja Ravi Sher Singh of Kalsia Memorial Award: A team headed by Dr. M. B. Sahashrabudhe, dean of the Cancer Research Institute, has been named by the Indian Council of Medical Research for the above award. The team is responsible for the anti-lukemia serum.

All-India Skill Competition for Industrial Training Award: The Presidents' Shield in the All-India skill competition for Industrial Training Institutes/Centres has been won by the Tamil Nadu. Each of the best trainees will be given a cash prize of Rs. 5,000 and a silver medal, a certificate of merit and a tool kit. He will also be taken on an all India industrial visit to acquaint him with modern techniques of the trade.

Silver Jubilee Research Award: On Feb. 5, 1970, President V. V. Giri presented India's top award in medicine, consisting of Rs. 25,000 and a gold medal, to Dr. Bal Krishan Anand, professor of physiology and dean of the All-India Institute of Medical Sciences, for his discoveries relating to the brain.

Dr. B. C. Roy National Award: Dr. B. C. Roy National Award for 1969 to two scientists, Dr. Nadkumar Hemraj Keswani, professor of anatomy and professor of medicine, A.I.I.M.S. and Dr. Ranjit Roy Chaudhury, professor and head of the department of pharmacology at the Postgraduate Institute of Medical Education and Research, Chandigarh. Each received a cheque for Rs. 10,000.

Unity Award: The award was to be made to a journalist writing in English on the basis of articles that have appeared during 1969.

### NATIONAL AWARDS FOR FILMS

The following are the recipients of National Awards for Films for 1968 with names of films, producers, directors and the nature of awards respectively:

"Goopy Gyne Bagha Byne", a Bengali film has been adjudged as the best national feature film for 1968 by

the Central Committee for National Awards for films. The film received the President's gold medal and its producers, Nepal Dutta and Ashim Dutta got a cash prize of Rs. 20,000. Satyajit Ray, director of the film was awarded Rs. 5,000 and a plaque for excellence in direction.

A special award for the second best feature film instituted during 1968, went to "Thulabharam" (Malayalam). Its producer, M/s. Supriya Pictures, received a cash prize of Rs. 5,000 and a medal while its director, A. Vincent got Rs. 2,000 and a plaque.

Another Malayalam film, "Janma-bhoomi," got the special award for the best feature film, on national integration. The film produced by Roopa Rekha, got a cash prize of Rs. 5,000 and a medal and its director, J. Shankharamangalam, Rs. 2,000 and a plaque.

The award for the best feature film on family planning went to "Aanchal Ke Phool" (Hindi) produced by M. R. Seth and directed by Karunesh Thakur.

Bharat & Urvashi Awards: Ashok Kumar got the best actor award for his acting in "Aashirwad" (Hindi) and Sarada was adjudged as the best actress for her acting in "Thulabharam" (Malayalam).

Manna Dey ("Mere Huzoor" — Hindi) was adjudged the best male playback singer and Mrs. Sushila ("Uyarandha Manithan"—Tamil) the best female playback singer.

Baby Rani ("Kuzhanthaikkaga" — Tamil) got the best child actress award.

Kalyanji Anandji ("Saraswatichandra" — Hindi) was adjudged as the best music director. The award was given for originality of score.

The award for the best film song on national integration went to Kannadasan ("Kuzhanthaikkaga"— Tamil).

The Children's Film Society got the award for the best children's film for producing "Heerer Prajapati" (Bengali). The film was directed by Shanti P. Chowdhury.

Other awards announced were:

Excellence in cinematography — black and white: "Saraswatichandra" (Hindi): cameraman—Nariman Irani.

Excellence in cinematography, colour—"Thillana Mohanambal" (Tamil): cameraman—K. S. Prasad.

Best screenplay: "Anokhi Ratt" (Hindi); script writer
— Pandit Anand Kumar.

Special short films category: Best experimental film and short films (English)—producer: Films Division (K. L. Khandpur), director: Films Division (S. N. S. Sastry).

Best animation film "Nagaur Kauwa" (Hindi) — producer: Children's Film Society; director: Children's Film Society (S. B. Nayampally).

#### Regional Awards

Cash prizes of Rs. 5,000 and President's silver medals were awarded respectively to the producers and directors of the best regional films.

Feature films, "Ashirwad" (Hindi) — producer: S. S. N. O. Sippy and Hrishikesh Mukherjee; director: Hrishikesh Mukherjee.

"Ektee" (Marathi) — producer: G. Chaugle; director: Raja Thakur.

"Apanjan" (Bengali) — producers: R. N. Malhotra, R. K. Kapur, T. M. Shah; director: Tapan Sinha.

"Stree" (Oriya) — producer: Mrs. Parbati Ghose; director: Sidhartha.

"Varakatnam" (Telugu) — producer: N. Trivikarama Rao; director: N. T. Rama Rao; "Thillana Mohanambal" (Tamil) — producer: Vijayalakshmi Pictures; director: A. P. Nagarajan.

"Adhyapika" (Malayalam) — producer: Neela Production; director: P. Subramaniam; "Mannian Maga" (Kannada) — producer: M. V. Venkatachalam and P.

Alexander; director: Geethaapriya.

International Film Award: Indian documentary film, "Stairway to the Sky", has bagged the special International Jury's award at the third International Sports Film Festival at Grenoble in France on Feb. 26, 1970.

#### FILMFARE AWARDS (1969)

Best Actor: Ashok Kumar (Aashirwad); Best Actress: Sharmila Tagore (Aradhana); Best Picture: Aradhana; Best Director: Yash Chopra (Ittefaq); Best Supporting Actor: Pran (Aansoo Ban Gaye Phool); Best Supporting Actress: Tanuja (Paisa ya Pyar); Best Comedian: Mehmood (Waris); Best Lyricist: Neeraj (for the song "Kaal Ka Pahiya" in "Chanda Aur Bajlee"); Best Playback Singer (Male): Kishor Kumar (for rendering of "Roop tera Mastana" in "Aradhana"); Best Playback Singer (Female): Lata Mangeshkar (for rendering of the song "Aap mujhe achhe lagne lage" in "Jeene Ki Raah").

Best Music: Laxmikant and Pyarelal (Jeene ki Raah);
Best Story: V. S. Kanetkar (Ansoo Ban Gaye Phool);
Best Screenplay: Hrishikesh Mukherjee (Anokhi Raat);
Best Dialogue: Pt. Anant Kumar (Anokhi Raat); Best
Cinematography (Colour): Faredoon Irani (Duniya): Best
Cinematography (Black & White): Kamal Bose (Anokhi
Raat); Best Editing: Balbir S. Glaad (Nannha Farishta);
Best Art Director (Colour): A. R. Kakkad & Baburao T.
Poddar (Tumanna); Best Art Direction (Black & White):
Ajit Banerji (Anokhi Raat); Best Sound recording: M. A.
Shaikh (Ittefaq).

Documentary (1969): Best Documentary Film: "Then, The Rains", by Films Division.

Regional Films (1969): Language, name of the film and producer, respectively are: Bengali: "Kamal Lata", Niren Sil; Marathi: "Jiwhala", Atma Ram; Tamil: "Adimaippenn", M. G. Ramachandran; Telugu: "Bangaru", B. N. Reddi; Malayalam: "Adimakal", M. O. Joseph; Kannada: "Namma Makkalu", Miss Harini.

Best Foreign Film: "The Heart is a Lonely Hunter", produced by Thomas C. Ryan.

### SUR-SINGAR SAMSAD AWARDS (1969)

Winners of "Sur-Mani", "Singar-Mani" and "Tal-Mani" titles in the 8th Kal-Ke-Kalakar Sangeet Sammelan were:

Vocal Music (Sur-Mani): Kamal Sidhu (Kanpur), Kiehlu Bros. (Calcutta), Geeta Prem (Bombay), Rasik Lal Andharia (Bhavnagar), Aslam Khan (Bombay), Sharad Sutavne (Nagpur), Singh Bros. (Delhi), Kankana Banerji (Calcutta), Madhurani (Bombay), Chandra Shekher (Bombay), Saeedudein Dagar (Delhi).

Instrumental (Sur-Mani): Subrotoroy Chowdhury (Sitar), Calcutta, Deolankar Bandhu (Sahnai), Poona, Ranjan Ganguli (Sitar Surbahar), Bombay, Harfezullah Khan (Sarangi), Delhi, Bholanath (Sahnai-Flute), Allahabad, Kanhaiyalal Belbansi (Sahnai), Bombay, Smt. V. C. Padma (Veena), Bombay, Smt. Vijaya Vishwanathan (Veena), Bombay, Prem Gupta (Flute), Delhi.

Drums (Tal-Mani): Girdhar Prasad (Tabla), Bombay; Laxmi Narayanan (Mridangam), Hyderabad; Ram Swaroop (Pakhawaj), Bombay; Kiran Deshpande (Tabla), Jabalpur; Aftab Hussain (Tabla), Bombay; Govind Ram, (Pakhawaj), Varanasi; Akbar Husain "Ballu" (Tabla), Lucknow; Ramzan Khan (Tabla), Delhi.

Dances (Singar-Mani): Revathi (Bharat Natyam), Bangalore, Asha (Bharat Natyam), Bangalore, Anuradha (Bharat Natyam), Bombay, Urmila Nagar (Kathak), Delhi, Sonal Mansingh (Odissi), Delhi.

#### Basic Literature

The 17 prize winners and title of their works in different languages are:

Smt. Seethalakshmi, Samudhaya Valarchi (Tamil); Gourish Chandra Mukherjee, Nijere Haraye Khunji (Bengali); Jawahar Lal Srivastava, Samudaik Samptee Nirman Mein Panchayaton Ki Bhumika (Hindi); S. N. Ahmed, Panchayati Raj Taraqi Ke Raste Par (Urdu); P. D. Maheshwari, Grameen Vikas Tatha Barhe Hue Rozgar Ke Liye Grameen Jana Shakti Ka Upyog (Hindi); Prabin Kumar Nowholia Phukan, Swapan Dithak Holo (Assamese); Smt. Santha Nair, Samuhya Kshema thinde Naraya Veru (Malayalam); Gouri Shankar Biswas, Palli-Mangale-Pusti Parikalpna (Bengali); Jayanti D. Shah, Bhoomi Danani Bhilarma (Gujarati); F. S. Bhandage, Jeevanta Jana (Kannada); Ranjit Singh, Panchayati Raj Atee Kheti Utpadan (Punjabi); Smt. Valluri Kamala, Cheedapurugulu (Telugu); Jagannath Mohanty, Saphala Sahajogar Kahani (Oriya); Bira Kishore Das, Gotie Gaunra Kahani (Oriya); A. Sivasubramaniam, Vilai-porul Virpanikku Oru Kooturavu Sangam (Tamil); V. V. Ghanekar, Bhavvarh Rokhndiya Sati Grahak Sahkari Chalaval (Marathi); N. R. Gujar, Sahkari Sakhar Karkhane-Sahakari Prakrya Sanshtacha Manbindu (Marathi).

#### Jnanpith Award (1969)

The Bharatiya Jnanpith Award, the highest literary honour, was awarded to the famous Hindi poet, Sumitranandan Pant, on Dec. 19, 1969, for his anthology of poems Chidambara.

The award carries a prize of Rs. 1 lakh, tax-free, a citation and a bronze-cast of Vagdevi, the symbol of the award.

# LABOUR

THE general position is as follows:-

Total Labour Force (1961-census): 18,86,75,500.

Estimated increase during the Third Plan: 17 million.

No. employed in factories coming under the Factories Act of 1948 during the first half of 1967: 46,52,253.

No. of trade unions on register during 1964-65: 12,874.

No. of trade unions which submitted returns of membership: 7,155.

No. of members of trade unions submitting returns: 40,82,000.

The Central co-ordinating authority in India for questions connected with labour legislation is the Ministry of Labour and Employment of the Government of India with the Labour Minister in charge. The administration of LABOUR

matters, connected with the English and Indian Merchant Shipping Acts, the Mercantile Marine Department and Indian Seamen is with the Ministry of Transport. In respect of all the Railways, the Labour Minister is responsible for the administration of the Payment of Wages Act, 1936, trade disputes, hours of work for employees not covered by the Factories Act and regulation of employment of children. He is also responsible for regulation of labour and safety in respect of mines and oilfields; trade disputes in industries, businesses or undertakings carried on by the Central Government, and inter-State migration.

The following Acts govern labour conditions and relations in India: 1. Indian Factories Act, 1948; 2. Indian Mines Act; 3. Payment of Wages Act; 4. Minimum Wages Act; 5. Workmen's Compensation Act; 6. Maternity Benefit Acts (States); 7. Indian Trades Union Act; 8. Industrial Disputes Act; 9. Industrial Disputes (Appellate Tribunal) Act; 10. Tea Districts Emigrant Labour Act: 11. Shop Assistants Acts (States); 12. Employees' State Insurance Act; 13. Collection of Statistics Act; 14. Employees Provident Funds Act; 15. Dock Workers' Act; 16. Working Journalists' Act; 17. Plantation Labour Act; 18. Shops and Commercial Establishments Act; 19. Industrial Employment (Standing orders) Act, 1946; 20. Motor Transport Workers Act, 1961; 21. The Apprentices Act, 1961; The Payment of Bonus Act, 1965. Details of the above Acts were given in the 1968 Directory.

### **FACTORY STATISTICS**

Under the provisions of the Factories Act, 1948, registered factories submit annual and half yearly returns on employment to the Chief Inspectors of Factories in the various States. All-India figures are compiled by the Labour Bureau and are published in the *Indian Labour Journal* 

The number of factories on registers in the areas covered by the Act during the first half of 1966 and 1967 were 63,261 and 64,786 respectively.

The number of factories working and average daily number of persons employed respectively during the halfyear ending 30th June 1967 in the following industries:

Processes Allied to Agriculture (Gins & Presses) (2,731; 1,42,244); Food (except Beverages) (19,976; 5,52,956); Beverages (217; 12,079); Tobacco (1,796; 1,65,463); Textiles (5,681; 12,48,968); Footwear, other Wearing Apparel and Made-up Textile goods (384; 38,095); Wood and Cork (except Furniture) (4,033; 73,848); Furniture and Fixtures (537; 20,843); Paper and Paper Products (434; 60,543); Printing, Publishing and Allied Industries (3,459; 1,24,225); Leather and Leather Products (Except Footwear) (479; 24,884); Rubber and Rubber Products (560; 58,702); Chemical and Chemical Products (2,012; 2,06,449); Products of Petroleum and Coal (230; 18,618); Non-metallic Mineral Products (except Products of Petroleum and coal) (2,900; 2,37,645); Basic Metal Industries (2,160; 2,68,464); Metal Products (except Machinery and Transport Equipment) (4,087; 2,01,795); Machinery (except Electrical Machinery) (5,282; 3,37,529); Electrical Machinery, Apparatus, Appliances and Supplies (1,223; 1,63,782); Transport Equipment (2,914; 4,51,877); Miscellaneous Industries (2,355; 1,68,801); Electricity, Gas and Steam (803; 53,894); Water and Sanitary Services (237; 9,951); Recreation Services (Cinema Studios) (46; 4,031); Personal Services (Laundries, Dyeing and Cleaning) (250; 6,567); TOTAL: (64,786; 46,52,253).

297

#### Statewise Figures

The following para shows the average daily employment in factories in the first half of 1967 by States:

Andhra Pradesh 2,58,987; Assam 66,547; Bihar 2,38,873; Gujarat 4,15,132; Haryana 72,958; Kerala 2,01,528; Madhya Pradesh 2,09,077; Tamil Nadu 4,10,699; Maharashtra 9,31,934; Mysore 2,42,250; Orissa 68,113; Punjab 1,06,046; Rajasthan 71,389; Uttar Pradesh 3,91,897; West Bengal 8,62,924; Andaman & Nicobar Islands 3,086; Delhi 91,988; Goa 2,754; Himachal Pradesh 2,998; Manipur 763; Tripura 2,310; Total 46,52,253.

#### MINING STATISTICS

The average daily number of workers employed in mines in 1965, 1966, 1967 and 1968 was 691,174; 699,253, 671,335 and 644,280 respectively. A break-up of the figures for 1967 and 1968 is given below:—

### EMPLOYMENT IN MINES BY STATE 1967 AND 1968

				Below g	round	Opencas	t workings	Above	ground	Total	
S	tates			1967 Male	1968 es	1967 M & F	1968 M & F	1967 M & F	1968 M & F	1967 M & F	1968 M & F
Andhra Prades	sh			21,449	20,393	8,440	9,344	9,654	9,449	39,543	39,186
Assam		1/4		1,884	2,096	742	856	8,204	8,444	10,830	11,376
Bihar	100			1,20,043	1,15,103	53,012	51,470	70,507	67,230	2,43,562	2,33,803
Delhi						141	110	16	11	157	121
Goa					-	11,786	10,897	1,550	2,046	13,336	12,943
Gujarat	1	1000		6	6	5,512	6,560	2,717	4,207	8,235	10,763
Haryana			1			1,455	851	248	263	1,703	1,114
Himachal Prac	logh			43	44	529	447	183	211	755	702
Kerala	tesn		***	20		416	429	359	380	775	809
Madhya Prade	-L			32,205	32,009	31,295	26,068	24,791	24,237	88,291	82,314
Maharashtra			**	4,989	4,842	10,444	7,976	4,628	4,062	20,061	16,880
					7,916	14,716	14,373	6,475	6,373	28,757	28,662
Mysore				7,566	7,310	14,710	11,010			20,101	
Nagaland					1 074	33,009	39,976	13,684	11,607	51,138	48,937
Orissa				4,445	4,354		11,113	4,311	4,606	17,330	18,908
Rajasthan				2,633	3,189	10,386		3,468	2,531	19,833	17,953
Tamil Nadu					29	16,365	15,393				
Uttar Pradesh	0			-	S TEST COLUMN	2,447	2,457	407	393	2,854	2,850
West Bengal			**	79,137	73,183	7,633	7,354	37,405	36,149	1,24,175	1,16,686
Total				2,74,400	2,63,144	2,08,328	1,98,664	1,88,607	1,82,199	6,71,335	6,44,007

#### EMPLOYMENT IN MINES BY TYPE OF MINING 1967 AND 1968

Average daily number of persons.

Bir.		10 (30)	Sist.	10/4	Below g	round	Opencast v	vorkings	Above g	round	Total	
	Minerals				1967 M	1968 ales	1967 M & F	1968 M & F	1967 M & F	1968 M & F	1967 M & F	1968 M & F
Coal		A 12.10	11000		2,48,251	2,36,019	46,187	45,216	1,19,352	1,14,129	4,13,790	3,95,364
Mica			Dies.		10,846	10,839	760	756	5,110	5,318	16,716	16,913
Manga	anese				1,978	1,875	33,476	27,537	9,335	7,807	44,789	37,219
Iron-o		-	100	1 90	42	42	41,282	38,697	14,314	13,496	55,538	52,235
Gold	500.	10	14.0	-	7,478	7,767	Nº	-	3,887	3,837	11,365	11,604
Limes		-		YOU WILL	700	200	42,231	42,738	9,255	10,124	51,486	52,862
Other					5,805	6,738	44,392	43,774	27,354	27,571	77,652	78,083
Total		10.50		100	2,74,400	2,63,280	2,08,328	1,98,718	1,88,607	1,82,282	6,71,335	6,44,280

Collieries:—During the month of Jan. 1969 the number of Collieries working was 753 and the workers employed in them were 3,76,498. The average cash earnings of the workers per week for the whole of India was Rs. 50.22 and the number of hours was 47.

### STATISTICS OF WORKMEN'S COMPENSATION ACT

An annual note on the working of the Act is published regularly in the *Indian Labour Journal*.

The latest available statistics on the total number of cases and total compensation paid in Rs, respectively during 1964 to 1966 are as follows: 1964: 1,18,356; 1,62,18,246; 1965: 1,64,401; 1,87,29,122; 1966: 91,221; 1,93,48,172.

The following is the accident rate per thousand workers and the average compensation paid in Rs. in the main industry groups respectively during 1966: Factories 11·92; 150; Plantations 5·07; 530; Mines 80·21; 130; Railways 21·06; 235; Docks and Ports 40·99; 283; Tramways 59·22; 94; Posts & Telegraphs 1·13; 545; Building & Construction 6·43; 1,055; Municipalities 0·09; 2,560; Miscellaneous 17·89; 366; Average 17·72; 212.

# MATERNITY BENEFIT PAID IN VARIOUS STATES, FACTORIES, PLANTATIONS AND MINES DURING 1967

		States	8		e	Average No. of women employed in stablishments submitting returns	No. of women who claimed maternity benefit in 1967	Total No. of women who were paid maternity benefit in full or in part	No. of cases in which bonus was paid	Total amount paid Rs.
Factories:	E	Serie.		Time.	A CONT				<b>沙东</b>	
Andhra Prad	esh		10.			85,933	71	71	8	11,280
Bihar						9,787	207	201		73,883
Gujarat						24,261	401	394	25	1,01,985
Haryana		200				581	1	1		56
Kerala					3.00	49,619	3,930	3,720	1,652	2,74,254
Madhya Prad	lesh					3,294	83	83		19,162
Madras						49,159	617	452	N.A.	55,132
Maharashtra						13,662	152	138	14	37,367
Mysore					**	23,898	864	831	119	78,500
Orissa			11.13000		**	3,164	65	65	- 4	17,338
Punjab			-			1,498	-		-	
Uttar Prades						2,878	25	23	66	11,966
West Bengal			100			7,251	97	96	The state of	20,863
Delhi						1,171	18	15	-	3,329
Goa			1.124	7		10	-	3 346		1 700
Pondicherry			5544		24	1,449	42	42		1,786
			Total			2,77,615	6,573	6,132	1,884	7,06,901
Plantations:										es in the first
Assam						1,64,530	21,615	19,588	The same of the	28,32,363
Bihar						303	21,010	10,000		-
Kerala						33,209	6,092	6,092	71	5,55,270
West Bengal						50,631	9,715	9,355		12,37,114
Tripura			18.8			3,014	302	302		14,981
Total				1		2,51,687	37,724	35,337	71	46,39,728
Mines:										× 00 550
Coal						8,055	1,309	1,194		5,20,756
Others				No.	**	33,745	5,439	5,454	785	9,68,426
			Total			41,800	6,748	6,648	785	14,89,182

#### AMOUNT OF MATERNITY BENEFIT PAID UNDER EMPLOYEES' STATE INSURANCE ACT, 1948 DURING THE YEAR 1967

The first figure indicates the Statewise No. of claims accepted and paid either fully or partially and the second the amount of benefit paid in Rs. in 1967: Andhra Pradesh 598; 78,928; Assam 51; 1,551; Bihar 125; 36,026;

Gujarat 490; 1,79,846; Kerala 6,483; 11,98,015; Madhya Pradesh 483; 1,24,792; Maharashtra 1,920; 9,27,867; Mysore 1,585; 3,74,329; Orissa 39; 13,560; Punjab\* 143; 31,923; Rajasthan 333; 41,529; Madras\*\* 1,744; 5,90,378; Uttar Pradesh 102; 17,119; West Bengal 1,132; 3,02,061; Delhi 179; 23,506; Total 15,407: 39,41,430.

## STATISTICS OF TRADE UNIONS

Registered Trade Unions and Membership-1966† (Provisional)

			Private Secto	r		Public	Sector	THE PARTY OF THE P
G. 1 /TT :		THE PERM	ENGLE - SELE		State S	Sphere	Central	Sphere
States/Union Terr	ritories	No. c on register	of Unions submitting returns	Membership of Unions ('000)	No. of Unions submitting returns	Membership of Unions ('000)	No. of Unions submitting returns	Membership of Unions ('000)
States	(April - Rose	THE WAY	Bladen Service	Sec. 100	100 Start 1911 41	SAMPLE STATE	Beer that mile	E L
Andhra Pradesh .	T VIEW AND A	753	515	305	106	75	49	119
Assam					STATE OF THE PARTY.			
Bihar					A STATE OF THE PARTY OF THE PAR		Mark St. Dr. Wall	SAME OF STREET
Gujarat		533	263	128	63	23	16	8
Haryana	Sale (Const	263	128	33	23	1	20	6
Kerala	OF HELD	1,874	201	69	3	1		- Ivalia
Madhya Pradesh .		534	198	85	73	12	9	6
Madras**		10 100						
Maharashtra .		2,210	953	796	248	151	73	243
Mysore		-				The same of the sa	The state of the s	A LET BUSINESS
Orissa		208	100	75	25	8	15	23
Punjab		415	274	73	65	27	29	7
Rajasthan		379	205	46	70	16	7	100
Uttar Pradesh		1,336	1,097	437	138	37	94	127
West Bengal .								
Union Territories								
Andaman & Nicoba		21	19	4	16	4		100000
Chandigarh .		-	10		-		The state of the state of	7.00
Dollai		in the same of	Tong I					
Himachal Pradesh		72	56	14	34	8	10	5
Maninun	PRIVATE IN		-			-	10	9
Dondish		50	26	7	6	1		
Tripura		40	16	9	4	i		
	The country	II. Mariana			Residential Control			
Total		8,688	4,051	2,080	874	366	322	546

<sup>\*</sup> Includes information for Haryana also. † Information in respect of Assam, Bihar, Madras\*\*, Mysore, West Bengal, Chandigarh, Delhi and Manipur is not available. \*\* Now Tamil Nadu.

The number and membership of the four Central Trade Union Organisations recognised by the Central Government, viz. the Indian National Trade Union Congress, the All-India Trade Union Congress, the Hind Mazdoor Sabha and the United Trades Union Congress, were as follows:

		No. of Affili	iated Unions	Membership		
Name of Organisation	A POINT	1967-68	1968-69	1967-68	1968-69	
	 	2,000@	2,046*	18,92,607@	10,02,374	
All T_l: m l Tr : C	 	1,971@		15,15,186@		
	 	397@		7,70,405@		
United Trade Union Congress	 	354†	374‡	1,98,216†	2,21,462‡	

@ As on Dec. 31, 1968.

\* As on July 26, 1969.

† As on Dec. 31, 1965.

‡ As on Dec. 31, 1966.

## STATISTICS OF INDUSTRIAL DISPUTES

Statistics presented in this section relate to industrial disputes which have resulted in work-stoppages involving 10 or more workers and exclude sympathetic and political strikes and closures not connected with industrial disputes, i.e., shortage of raw materials, breakdown of machinery etc.

The time losses in million man-days due to industrial disputes were 4.9 in 1961, 6.1 in 1962, 3.3 in 1963, 7.7 in 1964, 6.5 in 1965, 13.8 in 1966, 17.1 in 1967, 17.24 in 1968 and 16.68 (provisional) in 1969. Out of 16.68 million man-days lost in 1969, 1.83 million were in Central under takings and 14.85 million in State undertakings.

There were 2,815 industrial disputes during 1967 as compared with 2,556 during 1966.

As compared with 1966, there was an increase of 23.8 per cent in time-loss due to industrial disputes in 1967. The time-loss was over 20 lakh man-days in July and over 10 lakh man-days in the remaining months except January and April 1967. The lowest time-loss was in January 1967 which was 9·73 lakh man-days.

Out of 2,815 disputes reported during 1967, lockouts were declared in 382 cases involving 1.51 lakh workers which accounted for a time-loss of 6.58 million man-days.

Analysis of the statistics by industries shows that the manufacturing division accounted for 72·3 per cent of the total time-loss during the year 1967. Among other sectors, mining and quarrying accounted for 9·5 per cent, transport and communication for 4·9 per cent, activities not adequately described for 4·5 per cent, electricity, gas, water and sanitary services 4·4 per cent, agriculture, forestry, fishing, etc. 2·1 per cent, construction 1·3 per cent, services 0·8 per cent and commerce 0·2 per cent. In the manufacturing sector, the highest time-loss was recorded by the group 'textiles' (23·8 per cent). As compared to the preceding year, the time-loss increased in all but three major industry groups, viz., 'agriculture, forestry, fishing, etc.', 'construction' and 'services'.

Classifying the disputes by causes, 'wages and allowances' accounted for 1,100 (39·9%) disputes followed by 'others' and 'personnel' which accounted for 680 (24·6%) and 477 (17·3%) cases respectively. Disputes relating to 'wages and allowances' and 'bonus' contributed together 57·9 per cent of the total number of disputes for which the relevant information was available and accounted for 57·9 per cent of the total number of workers involved and 55·5 per cent of the total time-loss.

From the point of view of employees, 33·3 per cent were successful, 15·8 per cent were partially successful and 34·7 per cent were unsuccessful. In 16·2 per cent of the disputes work was resumed without any final decision having been reached.

According to their duration, 26·2 per cent of the disputes lasted for a day or less; 29·0 per cent for upto 5 days; 13·8 per cent for 6 to 10 days; 12·2 per cent for 11 to 20 days; 6·5 per cent for 21 to 30 days and 12·3 per cent for more than 30 days.

Of the 2,453 terminated disputes during 1967, 1,005 were terminated as a result of Government intervention, 717 by mutual settlement, 704 by voluntary resumption and 48 by other methods of settlements. In case of 73 disputes, the method of settlement was not known.

The following table sets out the number of disputes in some of the years since 1965, the number of workers involved in these disputes and the total time-lost in mandays:

Year		Number of disputes	Number of work people involved	Number of man-days lost
1965		1,835	9,91,158	64,69,992
1966		2,556	14,10,056	1,38,46,329
1967		2,815	14,90,346	1,71,47,951

Number of disputes resulting in work-stoppage, workers involved and man-days lost respectively for the year 1967 (State-wise): Andhra Pradesh (107; 90,639; 9,22,344); Assam (86; 63,388; 2,09,094); Bihar (130; 2,04,028; 12,32,918); Gujarat (124; 30,487; 3,08,952); Haryana (28; 6,386; 70,502); Jammu & Kashmir (10; 2,305; 51,593); Kerala (280; 1,42,871; 23,18,452); Madhya Pradesh (156; 57,493; 3,46,708); Madras\* (241; 1,16,690;

10,91,131); Maharashtra (721; 3,15,735; 22,01,519); Mysore (103; 37,251; 2,54,476); Orissa (24; 19,181; 1,25,644); Punjab (32; 24,326; 2,70,965); Rajasthan (44; 9,117; 62,724); Uttar Pradesh (183; 91,350; 15,25,943); West Bengal (457; 2,43,686; 59,24,743); Andaman & Nicobar Islands (8; 848; 4,396); Delhi (57; 10,553; 1,18,976); Goa (15; 21,242; 70,737); Himachal Pradesh (N.A.; N.A.); Manipur (--;--); Pondicherry (4; 1,848; 34,824); Tripura (5; 922; 1,310); Total (2,815; 14,90,346; 1,71,47,951).

## WORKING JOURNALISTS' ACT

(See under article on the Press)

# CERTAIN STATISTICS ON THE WORKING OF THE EMPLOYEES' PROVIDENT FUNDS ACT

No. of industries covered: 123 (upto 30-6-1969).

No. of covered establishments (both exempted and unexempted): 44,768 (as on 30-6-1969).

No. of subscribers: 53.76 lakhs (as on 30-6-1969).

Amount of Provident Fund contributions as on 30-6-1969 (both exempted and unexempted establishments):

- (i) Provident Fund Contributions collected Rs. 1,391.40 crores.
- (ii) Amount paid as loans, advances, in final settlement of claims, etc.: Rs. 491.06 crores.
- (iii) Amount invested in Government Securities: Rs. 917.83 crores.

Total contribution during 1968-69: Rs. 202-09 crores against Rs. 174-99 crores in 1967-68.

No. of unexempted establishments covered under the Act up to the end of June, 1969: 42,792; No. of subscribers in such establishments: Over 34,43,188; total accumulations of provident fund in such establishments: Rs. 630·58 erores; Amount of provident fund invested in such establishments: Rs. 461.83 erores.

Rate of interest at present on members' contributions:  $5\frac{1}{2}$  per cent (for 1969-70).

The provident fund contributions are at present invested 50 per cent in Central Government Securities and Small Savings and 50 per cent in State Govt. Securities and other Govt. Guaranteed Securities. The interest received on investments till 30-6-69 amounted to Rs. 84 · 84 crores.

The number of establishments covered on a voluntary basis rose from 1,265 to 1,282 upto 31-3-1969.

#### PLANTATION STATISTICS

The total No. of estates/plantations covered by the Act and average daily labour employed in various States/Union Territories during 1967.

Assam (674; 4,65,326); Bihar (13; 481); Kerala (402; 1,10,675); Mysore (652; 20,078†); Tamil Nadu (301; 72,056); Uttar Pradesh (12; 977); West Bengal (272; 1,61,096); Himachal Pradesh (16; 1,139); Tripura (45; 3,115); Andaman & Nicobar Islands (1; 155); Total 2,388; 8,35,098.

# STATISTICS UNDER SHOPS AND COMMERCIAL ESTABLISHMENTS ACT

The number of shops and commercial establishments and the number of persons employed by States for 1966 respectively are given below:

Andhra Pradesh (1,35,234; 1,45,618); Assam (14,221; 20,505); Bihar (38,185; 33,060); Gujarat (1,78,593; 1,91,326); Haryana (58,726; 29,070); Jammu & Kashmir

LABOUR

(6,877; 7,207); Kerala (44,480; 79,324); Madhya Pradesh (92,004; 65,863); Tamil Nadu (1,87,164; 2,27,358); Maharashtra (3,14,706; 6,01,882); Mysore (1,14,842; 1,38,332); Orissa (7,407; 29,748); Punjab (1,33,224; 86,162); Rajasthan\* (1,59,363; 86,024); Uttar Pradesh (2,26,337; 2,26,632); West Bengal (1,87,271; 3,35,132); Andaman & Nicobar Islands (407; 638); Delhi (1,09,312; 1,98,220); Himachal Pradesh (8,004; 4,056); Manipur (1,628; 4,050); Pondicherry (3,394; 8,304); Tripura (1,447; 2,427); Total (20,22,826; 25,20,938).

#### WAGES

Central Wage Boards were set up for eight industries cotton, cement, jute, coffee plantations, tea plantations, rubber plantations, sugar, iron-ore, limestone and dolomite mining industries. All the eight Boards have made their reports.

The Central Wage Board for Heavy Chemicals and Fertilizers Industry set up by the Government in April 1965 has made recommendations for the grant of interim relief to the workers in the units covered by it. The recommendations which are effective from 1st November 1966 have been accepted by the Government.

The second Central Wage Board for the cotton textile industry in India has submitted its report to the Government of India on 31st December 1968. The majority report was accepted by the Government of India on 17th May 1969.

301

The function of a Wage Board is to fix a wage structure on the principle of fair wages.

A steering group consisting of representatives of Government, employers and workers is engaged in drawing up a wage map of India both industry-wise and region-wise to serve as a guide for authorities who have to fix wages.

Average per capita annual earnings in Rs. in States of factory employees drawing less than Rs. 400 per month for the years 1965 and 1966 respectively are as follows: Andhra Pradesh (1,261; 1,457); Assam (1,861; 2,130); Bihar (1,967; 2,050); Gujarat (2,136; 2,340); Haryana (—; 1,712); Jammu & Kashmir (751; 978); Kerala (1,402; 1,700); Madras (1,897; 2,083); Madhya Pradesh (1,828; 2,118); Maharashtra (2,242; 2,477); Mysore (1,944; 1,840); Orissa (1,881; 2,001); Punjab (1,560; 1,636); Rajasthan (1,581; 1,368); Uttar Pradesh (1,700; 1,825); West Bengal (1,867; 2,024); Andaman & Nicobar Islands (1,439; 1,621); Delhi (2,193; 2,321); Himachal Pradesh (1,109; N.R.); Tripura (1,336; 1,271); Goa (-; 2,105); All-India Average (1,948; 2,118).

N.R. = Not received.

MINIMUM WAGES AND DEARNESS ALLOWANCE IN THE COTTON MILL INDUSTRY FOR A STANDARD MONTH OF 26 WORKING DAYS

Period	Ahmed- abad	Banga- lore	Baro- da	Bom- bay	Coimbatore and Madras	Delhi	Indore	Kan- pur	Nag- pur	Shola- pur	West Bengal
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Ra.
Min. Basic Wages	 38.00	40.00	36.00	40.00	40.00	40.00	38.00	38.00	34.00	34.00	36-17
D.A. Monthly Average 1966 1967 1968	 138·80 172·77 172·97	116·17 124·03 130·55	124 · 92 155 · 50 155 · 67	148·62 167·56 179·48	125·49 137·34 139·01	114·16 135·50 147·82	101·35 118·78 125·44	106·76 135·39 127·85	102·81 115·95 124·06	113·82 129·63 133·94	70·03 82·01 100·01
1968 January February March April May June July August September October November December	181·52 171·91 171·91 173·06 164·61 168·06 166·91 168·06 169·59 174·22 181·52 184·22	132·40 132·80 131·40 128·60 127·60 127·20 127·20 127·40 130·80 133·80 133·60	163·36 154·71 154·71 155·76 148·14 151·26 150·21 151·26 152·64 156·79 163·36 165·79	178.85 182.55 177.75 177.75 182.55 177.75 180.00 178.85 178.85 180.00 178.85 180.00	141·72 142·50 139·90 138·86 139·38 137·56 136·00 133·66 136·78 141·20 141·72 138·86	150·68 151·68 143·76 138·70 145·94 150·45 142·62 150·45 146·60 148·31 146·90 157·78	127·12 127·12 127·12 125·25 125·25 125·25 123·75 123·75 123·75 123·75 125·62 125·62	139·82 137·92 134·88 129·75 124·62 118·54 118·54 120·25 124·05 129·75 128·23 127·85	126·61 124·58 125·40 126·21 124·58 122·55 121·33 123·64 122·82 122·82 122·82 122·55 125·67	135.98 135.98 133.12 132.34 133.12 131.30 131.30 133.12 135.20 136.76 135.98 133.12	88·93 93·53 93·53 93·53 102·53 102·53 102·93 102·93 102·93 107·13

#### DEARNESS ALLOWANCE

The scale of the allowance varies not only from centre to centre and industry to industry, but also, except where these matters are adjudicated upon, from unit to unit in the same industry at the same centre.

Several Adjudicators have granted dearness allowance either at the Bombay Millowners' Association scale which was Rs. 189.05 in December 1969 or at a percentage, varying from 66% per cent to 85 per cent, of that scale. The rate of dearness allowance payable to Bombay City cotton mill workers itself was increased by a decision of the Labour Appellate Tribunal by 5 per cent when the Bombay Cost of Living Index Number is between 326 and

335; by  $7\frac{1}{2}$  per cent when it is between 336 and 350; and by 10 per cent when it is above 350. The enhanced rate was given retrospective effect from May 1953; the average dearness allowance for a month of 26 working days comes to Rs. 179.48 for 1968.

#### COST OF LIVING

On the basis of the results of the fresh family living surveys conducted during 1958-59, new series of consumer price index numbers for industrial workers are now being compiled for 46 out of 50 centres selected for the purpose by the Labour Bureau. It was decided by the Technical Advisory Committee to adopt the Calendar year 1960 as the base period for all these new series of index numbers.

<sup>\*</sup> Figures are for 1965.

Labour Bureau, Simla has published new series of Consumer Price Index Numbers for industrial workers in all the centres except Tamil Nadu: Factory Centre — Madras, Madurai and Coimbatore and Plantation Centre — Coonoor.

Since August 1968, the Labour Bureau started publishing the All India Average Consumer Price Index Numbers for Industrial Workers with the base 1960 = 100, simul-

taneously discontinuing the Interim Series with the base 1949 = 100.

The Labour Bureau is conducting fresh Family Living Surveys during 1969–70 among industrial workers at 60 different factory, mines and plantation centres in India. The results of these surveys would be utilised to construct new series of Consumer Price Index Numbers with a new base year 1969–70 or 1970 equal to 100.

The following tables show the Consumer Price Index Numbers for Working Class for some of the important centres worked out (with base 1960 = 100) from the year 1966, although actual introduction of the new series for various centres took place at later periods.

Year/Month	PRADESI		ASSAM	BIHAR	GUJARAT	HAR- YANA	JAMMU & KASHMIR	KERA- LA	MADHYA PRADESH	MAHA- RASH- TRA	
		Hyder- abad	Digboi	Jamshed- pur	Ahmed- abad	Yamuna- nagar	Srinagar	Alwaye	Indore	Bombay	
		1	2	3	4	5	6	7	8	9	
1966		154	155	152	140	153	151	156	154	143	
1967		165	189	181	167	186	160	175	177	158	
1968		171	190	174	165	185	152	198	178	166	
1969 January		172	169	164	162	188	151	193	175	167	
February		172	171	161	163	187	151	188	175	166	
March	J 454	176	172	164	164	189	153	189	180	170	
April		180	177	165	164	187	153	193	174	171	
May		183	177	165	166	189	156	200	175	173	
June		189	179	168	169	193	157	210	183	178	
July		189	180	171	168	195	158	210	184	177	
August		186	182	173	169	194	156	205	185	176	
September		186	181	174	173	191	160	194	184	176	

Y	Year/Month		MYSORE	ORISSA	PUNJAB	RAJA- STHAN	UTTAR PRADESH	WEST BENGAL	DELHI	ALL- INDIA AVERAGE	
			Banga- lore	Sambal- pur	Amritsar	Jaipur	Kanpur	Calcutta	Delhi	1949 = 100	1960 = 100
ga Pa			10	11	12	13	14	15	16	17	18
1966	1	1.	156	157	151	155	150	144	147	184	
1967			169	169	177	180	170	159	168	209	ling to
1968			179	178	188	175	176	171	178	215	-
1969	January		179	176	189	174	172	166	175	207	170
	February		180	173	185	175	171	164	175	205	169
	March	***	180	174	186	179	173	164	178	207	170
	April	10%	180	175	184	173	172	168	178	208	171
	May		182	175	186	177	173	166	170	210	173
	June		184	179	183	179	180	171	182	216	178
	July		186	186	185	185	184	172	187		
	August		186	191	193	187	185	173	187		
	September		185	190	192	189	185	175	187		

# EMPLOYMENT AND TRAINING National Employment Service

The National Employment Service, which was initially set up with the limited objective of registration and placement of employment seekers now provides necessary base for man-power, planning, and development of human resources.

## **Employment Exchanges**

The number of Employment Exchanges functioning at the end of August, 1969 was 412 which includes 15 Professional and Executive Employment Offices and 9 Special Employment Exchanges for Physically Handicapped. In addition 44 University Employment Information and Guidance Bureaux were also functioning.

At the end of August, 1969, there were 33,79,287 applicants on the live register of employment exchanges. The number of registrations effected by the employment exchanges during the one year period from September, 1968 to August, 1969 was 40,81,979. During the same period 7·18 lakh vacancies were notified to the employment exchanges and 4·33 lakh placements were effected as against 7·05 lakhs and 4·14 lakhs respectively during September, 1967 to August, 1968.

LABOUR 303

At the end of August, 1969, 4,21,347 women employment seekers were on the live register of employment exchanges. During the year September, 1968 to August, 1969, 48,048 women applicants were placed in jobs.

At the end of 1968, there were 56,700 unemployed engineers of whom 10,000 were graduates and 46,700 diploma holders. India is expected to have 100,000 jobless engineers by the end of 1973–74.

#### Vocational Guidance & Employment Counselling

Employment Exchanges and University Employment Information and Guidance Bureaux are the main agencies of the National Emp. Service through which vocational guidance and employment counselling service are rendered. At present there are 180 employment exchanges and 44 University Employment Information and Guidance Bureaux where special vocational guidance and employment counselling facilities are made available to employment seekers, students and alumni.

#### Occupational Research & Analysis Programme

The Occupational Research and Analysis Programme of the National Emp. Service consists of various tasks of identifying, cataloguing and coding of occupations, in the form of National Classification of Occupations. In addition, the Director General of Employment and Training also publishes different types of occupational information literature such as, Hand-books on Training facilities, Guides to career on individual and group of occupations etc. This literature is useful for students, employment seekers, parents, career masters and teacher counsellors.

#### **Employment of Handicapped**

Special Employment Offices for the Physically handicapped are at present functioning at Bombay, Delhi, Madras, Hyderabad, Calcutta, Kanpur, Bangalore, Ahmedabad and Chandigarh.

### TRAINING OF CRAFTSMEN

At the end of the Third Five Year Plan the number of Institutes/Centres functioning under the Craftsmen Training Scheme was 357 and the total training places were 1,13,622. During the year 1966-67, 31,322 additional seats were sanctioned and during 1967-68 the number of additional seats sanctioned was 7,338. Thus during the Annual Plans 1966-69 the total number of additional seats sanctioned was 38,660. The total number of training places available on 30th September, 1969 was 1,54,802 in 357 institutes.

#### Training of Craft Instructors

The scheme for the training of Craft Instructors has been designed to improve the efficiency of the Instructors both in the public and private institutions with a view to meeting the increasing demands of the country. The Government of India in the Department of Labour and Employment have set up 7 Central Training Institutes for Instructors, one of which meant exclusively for women is functioning in New Delhi while the other 6 are located at Calcutta, Bombay, Kanpur, Madras, Hyderabad and Ludhiana. The total training places at these Institutes is 1,198. Training is imparted in 19 engineering and 4 non-engineering trades and the duration of training is one year. These Institutes provide instruction in the theoretical aspects of the various trades and also impart practical instruction in the latest techniques of workshop practice.

# Apprenticeship Act, 1961

Statistics: 195 industries and 50 trades have been covered under this Act upto the end of the year 1969. More industries and trades will be brought under the purview of this Act, as and when necessary.

About 37,000 registered apprentices were undergoing apprenticeship training in various establishments, both in the public and private sectors, in July, 1969. This number is proposed to be increased to 75,000 by the end of the 4th Plan period to meet the need of skilled workers for all types of industries and trades specific to each type of industry.

The Government of India have entered into an agreement with the UNDP (Special Fund) Project, in accordance with which, for 5 years from September, 1968, assistance will be rendered by the Special Fund in the implementation of the Apprentices Act, 1961, by way of preparation of teaching aids/materials, technical units/equipment, and fellowships for national counterparts of ILO Experts.

The Special Fund allocation is U.S. \$ 1,102,100 and the Govts', counterpart contribution in kind, is estimated at U.S. \$ 6,063,270. The executing agency for the Project is the U.O.

Four Regional Directorates of Apprenticeship have been set up earlier in 1968, at Kanpur, Calcutta, Bombay and Madras, for the implementation in the Central sphere, of the Act. Each State Govt. has its own organisation and State Apprenticeship Adviser for implementation of the Act in the State Sector.

#### Training-Cum-Orientation Course

Under the scheme, special instructions in business management are given to the selected trainees in the I.T.Is., under the Craftsmen Training Scheme. In view of the transfer of the Craftsmen Training Scheme to the State Sector with effect from 1st April, 1969, all the State Governments have been requested to introduce this Course in the Industrial Training Institutes on a pilot basis.

New Institutes:—(1) Advanced Training Institute, Madras: Set up with assistance from the United Nations Development Programme (Special Fund) for the training of highly skilled (Master Craftsmen) with a seating capacity of 162.

(2) Staff Training and Research Institute, Calcutta: Set up with collaboration of the Federal Republic of Germany, for the purpose of (a) providing training to Officers and Staff and (b) Conducting research in training techniques. The most important work of this institute is research in training techniques.

(3) Foremen Training Institute, Bangalore: Set up with collaboration of the Federal Republic of Germany with a seating capacity of 200 to start with, for training of Foremen (Meister).

#### EMPLOYMENT IN FOREIGN COMPANIES

The position in regard to employment of Indians and non-Indians on salaries of Rs. 2,000 and above in foreign-owned/controlled concerns on the 1st of January each year was as follows:—

Year	11-16	Tion.	Indians	Foreigners*	Total
1965			4.585	2,590	7,175
1966			5,198	2,355	7,553
1967			6,151	2,080	8,231
1968			7,046	1,751	8,797
1969	***		7,802	1,544	9,346

Salary-group Rs. 2,001 to Rs. 3,000: The number of Indians increased from 4,410 on Jan. 1, 1968 to 4,662 on Jan. 1, 1969 and that of non-Indians fell from 196 to 173.

Salary-group Rs. 3,001 to Rs. 5,000: The number of Indians increased from 2,161 on Jan. 1, 1968 to 2,537 on Jan. 1, 1969 and that of non-Indians declined from 528 to 425.

<sup>·</sup> Excluding short-term foreign technicians.

#### **ABSENTEEISM**

#### ABSENTEEISM IN MANUFACTURING INDUSTRIES IN INDIA

(Percentage of man-shifts lost to man-shifts scheduled to work)

				Woollen Industry							
Period		Bombay	Ahmeda- bad	Shola- pur	Madras	Madurai	Coimba- tore	Kanpur	Mysore	Kanpur	Dhariwal
1965		18.4		15.3	9.8	14.1	13.1	12.5	18.4	8.7	15.5
1966	 	19.5		27.5	10.3	17.1	13.9	12.6	19.2	9.1	14.3
1967	 	18.6	10.2	31.0	Cheur -			11.9	16.8	10.1	
1968		19.5	13.0	27.2	/			15.3	13.8	10.3	

# ABSENTEEISM IN MANUFACTURING, MINING AND PLANTATION INDUSTRIES IN INDIA (Percentage of man-shifts lost to man-shifts scheduled to work)

Period			Engi	neering Ind	ustry		Coal I	Gold Mining	Plantation		
Period		Bombay		West Bengal	Mysore	Below ground	Open- cast	Above ground	Total	Mysore	Mysore
1965			15.6	13.7	14.0	13.6	13.8	10.4	12.7	9.8	19.2
1966			16.4	14.8	13.7	13.4	14.3	10.2	12.6	8.3	19.0
1967			16.4	15.6	13.5	12.7	13.3	10.1	12.0	7.5	20.6
1968			17.4	13.7	15.6	13.5	12.8	10.6	12.6	7.5	21.2

#### **EMPLOYEES' STATE INSURANCE CORPORATION**

Headquarters Office:—ESIC Building, Kotla Road, New Delhi.

Regional Offices: See under Deptt. of Social Welfare in 'Govt. of India Personnel'.

The Employees' State Insurance Act applies to all nonseasonal factories using power wherein 20 or more persons work for wages. All employees employed on a remuneration not exceeding Rs. 500 per month, are covered by this Act.

The scheme at present provides for medical care for the insured persons and in most of the areas for their families also. It also provides for sickness, maternity, disablement, dependents and funeral benefit in cash.

The scheme covered an additional number of about 57,900 employees and about 74,800 family (insured person) units during 1968-69. A sum of Rs. 15,50,49,922 was disbursed by way of cash benefit during 1968-69.

The Employees' State Insurance Scheme covers about 37,76,500 insured persons working in 313 centres (as on March 31, 1969).

The total number of beneficiaries entitled to medical benefit is estimated at about 1,40,69,900 including the members of families of workers (as on March 31, 1969). Upto October, 1969, 3.77 million insured persons were covered under the scheme. The total number of beneficiaries including insured persons was over 14.6 million.

The scheme is in force in all the States except Jammu & Kashmir.

Hospitals/Annexes/Dispensaries:—The Corporation has so far constructed and put into use 31 full-fledged Employees' State Insurance Hospitals with 5,239 beds, 20 Employees' State Insurance Annexes with 476 beds and 123 State Insurance Dispensaries. Besides this the E.S.I.

Corporation has reserved 3,698 beds in State Govt. and other hospitals. Out of these 1,609 are general and maternity beds and the balance 2,089 T.B. beds.

So far the Corporation has sanctioned Rs. 36.84 crores for capital project all over the country.

Employers' Special Contribution to the Corporation: Rs. 18,42,65,198; Employees' Contribution Rs. 13,96,81,277.

Budget Estimates for 1967-68: Receipts: Rs. 26,65,86,500; Payments: Rs. 26,63,32,500; Surplus: Rs. 2,54,000.

Amounts (Rs.) distributed under some heads for 1968-69 are as shown in next page.

#### ACCIDENTS

The Indian Factories Act requires the manager to report all accidents which cause death or bodily injury whereby the person injured is prevented from returning to his work in the factory during the 48 hours next after the occurrence of the accident.

It is the duty of the Inspector of Factories to make an investigation as soon as possible into the causes of and the responsibility for a fatal or serious accident, and to take steps for the prosecution of the person concerned if it is found that the death or serious injury resulted from any infringement of the provisions of the Act or of the rules framed under the Act.

The Department of Mines has been strengthened to facilitate more frequent inspection of mines. As an emergency measure, the Coal Mines (Temporary) Regulations, 1955 have been promulgated for the prevention of apprehended danger and for the speedy remedy of the conditions likely to cause danger. The entire codes of coal and non-coal mines regulations are being revised to provide for more comprehensive measures for safety in mines.

Amounts of benefits in Rs. distributed under certain heads in 1968-69

State			Sickness Benefits (including Extended Sickness Benefits)	Maternity Benefits	T.D.B. (Actual Payments)	Disablement Capitalised value of Dependent Benefits	Dependent Benefits (Capitalised value)	Funeral Benefits
Andhra Pradesh			33,50,736	1,26,780	3,23,076	1,78,000	- 77,000	28,649 960
			1,73,058	1.848	33,261	1,19,000	28,000	
Assam	**	1	11,99,420	40,965	1,21,615	1,63,000	1,33,000	10,600
Bihar		100	22,47,726	27,143	3,48,305	6,82,000	1,14,000	9,565
Delhi		* *	71,70,005	2,28,807	15,48,840	10,21,000	5,85,000	70,221
Gujarat	**	71 71 16 8	39,84,602	14,16,296	3,88,204	4,79,000	1,33,000	34,654
Kerala			43,60,886	98,780	6,63,388	3,42,000	1,20,000	32,350
Madhya Pradesh		**	1,32,79,176	6,74,947	12,33,251	9,48,000	3,07,000	72,694
Tamil Nadu	**	1	3,83,08,176	10,88,159	31,91,444	31,42,000	12,02,000	90,689
Maharashtra		4.5		4,63,912	4.16.129	8,46,000	1,90,000	33,095
Mysore			38,84,546	16,579	99,063	1,05,000	1,000	1,675
Orissa	1.8.44	1 (**)	7,83,458	43,563	3,45,895	7,45,000	1,53,000	9,830
Punjab		(10000	13,06,747	62,287	1,72,189	2,56,000	2,17,000	11,098
Rajasthan	1887		9,40,795		8,38,047	7,80,000	2,33,000	47,795
Uttar Pradesh			55,23,163	18,244	63,87,385	77,11,000	9,72,000	1,31,956
West Bengal			2,51,24,580	4,26,615	00,07,000	.,,,,,,,,,		
Total	ull's		11,16,37,074	47,34,925	1,61,10,092	1,75,17,000	44,65,000	5,85,831

Figures of accidents in factories and mines for the years 1965, 1966 and 1967 are given in the table below.

Ligures	-			FACTORIES			MINES	
Year			Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
1965 1966			587 591	2,02,236 2,08,253	2,02,823 2,08,844	547* 319 293	3,298 3,210 2,837	3,845 3,529 3,130
1967†		1	 537	1,93,887	1,94,424	200	2,00	

# WORKERS' EDUCATION SCHEME

A semi-autonomous body called the Central Board for Workers' Education consisting of the representatives of Government, employers, workers and educational institutions has been set up for carrying on workers' education. The Board is invested with full authority for the framing and execution of the programmes in cooperation with trade unions, educational institutions, etc. The Board gives grants-in-aid to unions and other institutions for undertaking programmes of workers' education.

The Board has so far opened 30 Regional and 49 Sub-Regional Workers' Education Centres in different parts of the country. Of the 49 Sub-Regional Centres, six have since been converted into full-fledged Centres.

The object of the Scheme is to create over a period of time, despite lack of general education, a well-informed, constructive and responsible minded industrial labour force capable of organizing and running trade unions on sound lines without leaning heavily on outsiders and without lending themselves to exploitation by extraneous interests

During Jan. 1969, 71 new unit level classes were started under different regional centres all over India, in addition to 2,938 classes which were in existence by the end of previous month. The number of workers already trained and those undergoing training at the end of Jan. 1969 were 7, 13,248 and 39,876 respectively. The over-all number of workers trained under the Scheme at the end of Jan. 1969 stood at 8,33,589 including worker-teachers, those trained under the short-term training programmes and 10,059 workers trained by grantees.

# COAL MINES LABOUR WELFARE FUND

Object: To finance the measures for promoting the welfare of labour employed in the coal mining industry. The Fund is administered by the Central Govt. on the advice of an Advisory Committee consisting of Government Officers and equal number of members representing colliery owners and workers employed in the Coal Mining Industry with at least one woman.

The main source of income to the Fund is a cess levied on all coal and coke despatched from collieries by rail and road. The cess is being levied at the rate of 49·21 paise per metric tonne. The income of the Fund which was Rs. 354 lakhs during 1965-66 was expected to be Rs. 400 lakhs during 1966-67.

# MICA MINES LABOUR WELFARE FUND

The Mica Mines Labour Welfare Fund Act, 1946, which was designed to constitute a similar fund for the benefit of mica mine workers, provides for the levy of an advalorem duty not exceeding 6½ per cent on all mica exported from India. The present rate is however 2½ per cent advalorem. The collections are allocated for expenditure of welfare measures among the various mica mining areas (viz. Bihar, Andhra Pradesh and Rajasthan) in proportion to their average production. The present rate of allocation for Bihar is 47·3 per cent. The annual recurring expenditure on welfare measures already introduced in Bihar is to the tune of Rs. 28 lakhs and the annual income of the Fund is about Rs. 30 lakhs. The accumulated balance to the credit of Bihar is about Rs. 175 lakhs.

<sup>•</sup> Includes 268 killed in Dhori disaster. † Provisional.

#### MINIMUM WAGES

Minimum wages for agricultural workers have been fixed in all the States and 3 Union Territories (viz., Delhi, Himachal Pradesh and Tripura) and also by the Central Govt. in certain agricultural farms/research institutes, military farms and depots and archaeological gardens. In two States, i.e. Maharashtra and Tamil Nadu, the minimum wages have been fixed for a part of the State. In the remaining States, the rates fixed are applicable in the whole of the State.

Consumer Price Index numbers for agricultural Labour on base 1960-61 (July-June) = 100 from Sept. 1964 onwards are being published by the Labour Bureau, Ministry of Labour, Employment and Rehabilitation, Govt. of India for 15 States, or group of States together with all India figures, regularly every month in the Indian Labour Journal.

#### National Commission on Labour

The Government of India appointed in December 1966 the National Commission on Labour under the chairmanship of Shri P. B. Gajendragadkar, former Chief Justice of India, to review, among other matters, the existing legislative and other provisions intended to protect the interests of labour, to assess their working and to advise, inter-alia, how far these provisions serve to implement, in the field of labour, the Directive Principles of State Policy embodied in the Constitution. The Commission's report was submitted to Government on August 28, 1969.

## Code of Discipline

The Code of Discipline lays down certain do's and don'te both for managements and unions with a view to ensuring better discipline in industry. The Code applies to both the public and the private sectors,

More details were given in the 1968 Directory.

During the period January-September, 1969, the Central Implementation and Evaluation Division received 395 complaints of alleged breaches of the Code of Discipline and of the Industrial Truce Resolution in the Central sphere. Of these, 118 did not require any specific action as they had already been reported to other organisations and were referred to the Division only for information or pertained to cases which were subjudice or did not involve any union. Of the remaining 277 cases, 12 were not substantiated on enquiry; in 35 the parties were brought together and mutual settlements reached; in 59 the infringements were either got rectified or the parties were advised to avoid them in future; the remaining 171 cases have been taken up with the parties concerned for rectification or were under investigation.

#### Voluntary Arbitration

Settlement of disputes by voluntary arbitration is advocated both by the Code of Discipline and the Industrial Truce Resolution. During January-September 1969 employers and workers agreed to settle their disputes through voluntary arbitration in 48 out of 723 cases in the Central sphere in which conciliation had failed. In order to ensure that employers and workers take greater recourse to this voluntary approach, a National Arbitration Promotion Board was set up in July 1967 under the chairmanship of the Additional Secretary in the Department of Labour and Employment. The Board has, besides the Chairman, representatives of Govt., the central organisations of employers and workers and the public sector undertakings.

#### **Evaluation Studies**

Besides looking after the implementation of the Code of Discipline and the Industrial Truce Resolution, the Central Implementation and Evaluation Division in the Union Ministry of Labour, Employment and Rehabilitation has been regularly conducting evaluation studies into the industrial relations and implementation of labour laws, etc., in both public and private sector undertakings.

The case studies in the following undertakings were completed during 1969:—(i) Fertiliser Corporation of India Ltd., Trombay Unit; (ii) Surgical Instruments Ltd., Madras; (iii) Bharat Earth Movers Ltd., Bangalore; (iv) Hindustan Machine Tools, Kalamassery; (v) Tata Iron and Steel Company Ltd., Jamshedpur and (vi) Bararee and Jealgora Colliery, Dhanbad.

# JOINT MANAGEMENT COUNCILS

As of 30th September 1969, Joint Management Councils were functioning in 87 establishments 33 in the Public Sector and 54 in the Private Sector. These include manufacturing, mining, plantations and banking industries. The National Commission on Labour has recommended the following:—

"When the system of Union recognition becomes an accepted practice, managements and unions will be willing to extend cooperation in matters they consider to be of mutual advantage and set up a Joint Management Council. In the meanwhile, whenever the management and the recognised trade union in a unit so desire, they can by agreement enhance the powers and scope of the works committee to ensure a greater degree of consultation/cooperation. The functions of the two in this latter situation can as well be amalgamated."

## TRIPARTITE LABOUR MACHINERY

The Tripartite Labour Machinery at the Centre consists of (a) Indian Labour Conference, (b) Standing Labour Committee and (c) Industrial and other Committees. There is also the Labour Ministers' Conference, which though not tripartite in character, is closely associated with the tripartite labour machinery.

The Indian Labour Conference and the Standing Labour Committee advise the Government of India on all labour matters referred to it.

The Industrial Committees have been set up to consider the problems peculiar to individual industries and make suitable recommendations. The Tripartite Committee on Conventions considers questions relating to the implementation of I.L.O. Conventions and Recommendations.

# LABOUR ADMINISTRATION

Apart from the main Secretariat of the Ministry of Labour it has several attached and subordinate offices. The activities of some of these have been described in the relevant sections, such as Miners' Welfare Fund, and notes on some others are briefly given below.

#### Chief Labour Commissioner

In the Ministry of Labour, Employment and Rehabilitation, the Chief Labour Commissioner is responsible for prevention and settlement of industrial disputes, enforcement of labour laws, promotion of labour welfare and maintenance of healthy relations in the undertakings falling in the Central sphere and verification of membership of trade unions. The Indian Institute of Labour Studies has also been set up under him for imparting specialised training to the officers of the industrial relations machinery at the Centre and in the States. There are four Deputy Chief Labour Commissioners, one Welfare Adviser, one Deputy Director, one Administrative Officer and eleven Regional Labour Commissioners working under him besides the

faculty staff in the above institute which consists of one Director, two Deputy Directors and four Assistant Directors.

#### DIRECTORATE GENERAL OF FACTORY ADVICE SERVICE AND LABOUR INSTITUTES

The Directorate-General, Factory Advice Service and Labour Institutes is concerned with the safety, health and welfare of workers in factories, research in occupational diseases and industrial Hygiene, Productivity, Techniques, staff training, industrial physiology and industrial psychology. The Directorate General has under it the Central Labour Institute at Bombay and Regional Labour Institutes at Kanpur, Calcutta and Madras. Each Regional Institute is under a Regional Director. The Directorate General is also the administering authority for the Indian Dock Labourers Act, 1934, the Indian Dock Labourers Regulations 1948 and the Dock Workers (Safety, Health and Welfare) Scheme, 1961.

#### EMPLOYMENT FOR HANDICAPPED

Special Employment offices for the physically handicapped are at present functioning at Bombay, Delhi, Madras, Hyderabad, Calcutta, Kanpur, Bangalore, Ahmedabad and Jullundur.

#### VOCATIONAL REHABILITATION CENTRES FOR PHYSICALLY HANDICAPPED

Two Vocational Rehabilitation Centres for the Physically Handicapped one each at Bombay and Hyderabad have been set up with the assistance of Social and Rehabilitation services, Department of Health, Education and Welfare of U.S.A., for the vocational evaluation and adjustment of Physically Handicapped persons.

#### INDIA AND THE I.L.O.

India joined this organisation at the very start and since 1922 has been one of the ten countries of chief industrial

importance and as such has been allotted a permanent seat on the Governing Body of the Organization. India also contributes liberally towards the finances of the Organisation. For 1969 India's contribution amounts to U.S. \$7,37,173 which is 2.77 per cent of the total contribution of all member States, as against United States' \$66,53,184 for 1968 which is 25 per cent of the total contribution of all member States. India's share in the appointments of the office is, however, somewhat inadequate.

India has been the venue of two Asian Regional Conferences, the first in 1947 and the fourth in 1957.

India has been receiving technical assistance from the I.L.O. in the spheres of manpower, vocational training, Rural Employment Promotion, Productivity, and so on and experts from India have been recruited by the I.L.O. for assignments in other underdeveloped countries in such subjects as Cooperation, Cottage Industries and Employment Information.

Out of 130 Conventions adopted by the International Labour Conference, India has so far ratified 30 Conventions. She has in addition incorporated into her national legislation the essential features of many other Conventions.

#### **BONUS**

The Rajya Sabha passed on February 26, 1969 the Payment of Bonus (Amendment) Bill, 1969, which seeks to replace an ordinance issued on January 10, 1969 in regard to the parent Act of 1965. The Bill has been passed to carry out the Governments' intention that the available surplus under section V of the Act should be so computed that the amount of tax rebate accruing to the employers on account of bonus paid or payable under the Act, becoms a part of the available surplus of the succeeding year instead of the same going entirely to the employer.

# INDUSTRIAL PRODUCTION 1969\*

#### INDUSTRIAL MACHINERY

Sugar Mill Machinery: No. of units 16; Production in Rs. lakhs 1,200 (1,159); Cement Mill Machinery: No. of units 10; Production in Rs. lakhs 1,000 (817.58); Boiler (Industrial Power): No. of units 13; Production in Rs. lakhs 2,200 (1,980·50); Conveyors & Wagon Tiplers: No. of units 18; Production in Rs. lakhs 600 (591.64); Drilling Machinery: No. of units 10; Production in Rs. lakhs 160 (136.79); Reduction Gear: No. of units 13 (14); Production in Rs. lakhs 370 (264.94); Gas Cylinders (L. P.): No. of units 6 (4); Production in Rs. lakhs 390 (292.32); Printing Machinery: No. of units 5; Production in Rs. lakhs 24 (10·27); Chemical & Pharmaceutical Machinery: No. of units 46; Production in Rs. lakhs 1,300 (1,100); Paper & Pulp Machinery: No. of units 12 (13); Production in Rs. lakhs 360 (271); Mining Machinery: No. of units 9; Production in Rs. lakhs 1,250 (299); Steel Plant Equipment: No. of units 2; 700† (1,020††); Metallurgical Machinery: No. of units 10; Production in Rs. lakhs 175 (135); Construction Machinery: No. of units 17; Production in Rs. lakhs 90 (104.58); Rayon Machinery: No. of units 3 (1); Production in Rs. lakhs 85 (58.48); Bread Plant & Bread making Machinery: No. of units 1; Production in Rs. lakhs: Nil (9.62); Tea

Processing Machinery: No. of units 6; Production in Rs. lakhs 135 (178); Weighing Machinery: No. of units 4; Production in Rs. lakhs 160 (165); Modern Rice Mills: No. of units 3 (1); Production in Rs. lakhs 25 (10.28); Pesticide Equipment, Agricultural Sprayers and dusters: No. of units 3; Production in Rs. lakhs 220 (219); Dairy Machinery: No. of units 3; Production in Rs. lakhs 122 (93); Asbestos Cement Production Plants: No. of units 1; Production in Rs. lakhs 50 (47); Industrial Filteration Equipment including centrifuges; No. of units 5; Production in Rs. lakhs 128 (74); Industrial Screens; No. of units 6 (5); Production in Rs. lakhs 87 (49); Electroplating Equipment: No. of units 2; Production in Rs. lakhs 43 (33); Feed Millplants: No. of units 1; Production in Rs. lakhs 37 (62); Book Processing Equipment including Bottling Machinery: No. of units 7 (6); Production in Rs. lakhs 23 (11); Rubber Machinery: No. of units 2; Production in Rs. lakhs 24 (17); Coil Winding & Impregnating & Coating Plants : No. of units 1 ; Production in Rs. lakhs 23 (21); Oil & Gas Firing Equipment: No. of units 5; Production in Rs. lakhs 23 (16); Industrial Drycleaning & Laundry Machinery : No. of units 1; Production in Rs. lakhs 57 (40); Ceramics Machinery: No. of units 1; Production in Rs. lakhs 8 (8); Paint & Varnish Machinery : No. of units 4; Production in Rs. lakhs 11.

\* Note: Against Production, the figures within brackets indicate production for 1968. Regarding the No. of units, it is generally the same for 1968 and 1969. Any difference is indicated by the figures in brackets which relate to the year 1968. Source: 1969-70 Report of the Ministry of Industrial Davelopment, Internal Trade and Company affairs, Govt. of India.
† This is only for steel plant equipment, Production in Rs. lakhs.
† This includes total production of HMBP. Production in Rs. lakhs.

# TOOLS AND ABRASIVES

Machine Tools: No. of units 72 (70); Production in Rs. lakhs 1,954 (1,721.56); Machine Tools Accessories: No. of units 14; Production in Rs. lakhs 97 (82.34); Wood Working Machines: No. of units 4; Production in Rs. lakhs 10.80 (5.92); Portable Tools: No. of units 7; Production in Rs. lakhs 159.68 (125.93); Other Metal Forming Machineries: No. of units 5 (4); Production in Rs. lakhs 70.90 (47.92); Plastic Working Machines: No. of units 3; Production in Rs. lakhs 124-20 (87-03); Furnances: No. of units 14; Production in Rs. lakhs 335.75 (307.32); Gas Welding & Cutting Equipment: No. of units 3 (2); Production in Rs. lakhs 75 · 28 (81 · 60); Electric Welding : No. of units 2; Production in Rs. lakhs 67.64 (56.95); Other (Rerolling Plant etc.): No. of units 4; Production in Rs. lakhs 52.20 (42.33); Grinding Wheels: No. of units 4; Production in Kgs. 41,54,576 (37,30,276); Coated Abrasives: No. of units 3; Production in reams 1,46,065 (1,47,057); Steel Files: No. of units 6; Production in '000 Nos. 13,094 (12,220·8); Twist Drills: No. of units 7 (6); Production in '000 Nos. 10,378 (8,462·9); Reamers: No. of units 14 (10); Production in Nos. 2,07,564 (2,03,262); Threading Tools: No. of units 10 (9); Production in Nos. 18,23,168 (21,87,213); Milling Cutters: No. of units 16 (13); Production in Nos. 2,84,500 (2,54,498); Bandsaw Blades (Wood): No. of units 5; Production in RM 7,38,576 (7,56,185); Bandsaw Blades (Metal): No. of units 4; Production in RM 10,94,564 (8,79,125); Hacksaw Blades: No. of units 5; Production in '000 Nos. 29,837.2 (30,790.7); Tungstan Carbide (s): No. of units 5; Production in Kgs. 1,08,928 (60,932); Lathe Tools (Tool Bits): No. of units 10 (8); Production in Nos. 8, 34,928 (7,38,469); Diamond Drill Bits: No. of units 5 (4); Production in Nos. 14,005 (15,262); Tungstan Carbide Tipped Tools: No. of units 7; Production in Nos. 5,22,400 (5,61,323); Broaches: No. of units 1; Production in Nos. 2,765 (1,576); Measuring Tapes: No. of units 2; Production in Nos. 17,74,164 (10,76,508); Industrial Knives: No. of units 5 (3); Production in Nos. 1,53,324 (89,837); Forged Hand Tools: No. of units 9 (8); Production in Rs. lakhs 426,36 (312.68); Micrometers: No. of units 1; Production in Nos. 8,772 (10,097); Hand Saws: No. of units 2; Production in Nos. 1,11,140 (1,30,664).

## AUTOMOBILE AND ANCILLARIES

Automobiles:

(a) Commercial Vehicles: No. of units 6; Production in Nos. 40,000 (35,947); (b) Jeeps: No. of units 1; Production in Nos. 9,000 (7, 790); (c) Cars: No. of units 3; Production in Nos. 36,000 (35,799).

Motor Cycles & Scooters, etc :

(a) Motor Cycles: No. of units 3; Production in Nos. 35,000 (31,164); (b) Three Wheelers: No. of units 3; Production in Nos. 5,250 (4,727); Scooters: No. of units 3; Production in Nos. 52,250 (39,609); (d) Mopeds: No. of units 4; Production in Nos. 10,000 (9,104).

Fuel Injection Equipment:

(a) Nozzles: No. of units 3; Production in Nos. 11,00,000 (10,48,690); Nozzle Holders: No. of units 3; Production in Nos. 6,00,000 (5,44,317); Elements: No. of units 4; Production in Nos. 12,00,000 (11,40,699); Delivery Valves: No. of units 3; Production in Nos. 12,00,000 (10,11,288); Single Cylinder Pumps: No. of units 3; Production in Nos. 4,00,000 (3,27,599); Multi-Cylinder Pumps: No. of units 1; Production in Nos. 55,000 (49,076); (b) Filter (Oil, Air, Fuel): No. of units 5; Production in Nos. 2,20,000 (2,13,737); Filter Inserts: No. of units 4; Production in Nos. 10,00,000 (9,41,121); (c) Thin Walled

Bearing: No. of units 3; Production in Nos. 75,00,000 (71,45,689); (d) Radiators: No. of units 6; Production in Nos. 95,000 (86,386); (e) Dynamos: No. of units 4: Production in Nos. 1,20,000 (1,14,997); (f) Starter Motors: No. of units 4; Production in Nos. 1,15,000 (1,02,385); (g) Electric Horns: No. of units 6; Production in Nos. 2,25,900 (2,15,895); (h) Dash Board Instruments: No. of units 2; Production in Rs. lakhs 165 (157.72); (i) Gaskets: No. of units 3; Production in Nos. 5,25,00,000 (5,15,35,880) (j) Wheels & Rims: No. of units 2; Production in Nos. 6,00,000 (5,84,322); (k) Engine Valves: No. of units 4; Production in Nos. 40,00,000 (37,25,128); (l) Oil Seals: No. of units 7; Production in Nos. 60,00,000 (56,71,313); (m) Piston Rings: No. of units 3; Production in Nos. 1,40,00,000 (1,33,88,522); (n) Pistons: No. of units 4; Production in Nos. 18,00,000 (16,71,426); (o) Cylinder Liners: No. of units 3; Production in Nos. 2,50,000 (2,42,885); (p) Shock Absorbers: No. of units 6; Production in Nos. 10,00,000 (8,95,076); (q) Clutch Facings: No. of units 3; Production in M. Tons 140,000 (127,058): (r) Brake Linings: No. of units 5; Production in M. Tons 1800.000 (1740.514); (s) Clutch Assembly: No. of units 1; Production in Nos. 1,40,000 (1,28,067); (t) Spark Plugs: No. of units 2; Production in Nos. 20,00,000 (18,25,609); (u) Tie Rod Ends: No. of units 2; Production in Nos. 5,00,000 (4,74,358); (v) Taxi Meters: No. of units 1; Production in Nos. 1,500 (1,108); (w) Propeller Shafts: No. of units 1; Production in Nos. 75,000 (72,566); (x) Fly Wheel Ring Gears: No. of units 1; Production in Nos. 65,000 (59,013); (y) Carburettors: No. of units 3; Production in Nos. 40,000 (39,645); (z) Wiper Motors: No. of units 2; Production in Nos. 1,00,000 (95,416); Wiper Arms & Blades: No. of units 1; Production in Nos. 4,50,000 (4,43,479).

#### LIGHT ELECTRICAL ENGINEERING INDUSTRIES

G. L. S. Lamps: No. of units 10 (8); Production in Million Nos. 94 (84.51); Fluorescent Tubes: No. of units 7 (6); Production in Million Nos. 9.50 (7.69); Miniature Lamps: No. of units 6 (5); Production in Million Nos. 36 (27.44); Electric Fans: No. of units 16 (15); Production in Nos. 15,00,000 (14,66,339); Storage Batteries: No. of units 6; Production in Nos. 10,40,000 (8,70,472); Dry Batteries: No. of units 6 (4); Production in Million cells 460 (408.54); Domestic Refrigerators: No. of units 6 (5); Production in Nos. 50,000 (49,897); Room Air Conditioners: No. of units 7; Production in Nos. 13,000 (12,933); Electrical Wiring Accessories: No. of units 4; Production in Nos. 62,00,000 (64,10,847); Brass Lamp Holders: No. of units 4; Production in Nos. 6,90,000 (7,00,396); Industries Air Conditioners Refri. Equipment: No. of units 18; Production in Rs. lakhs 560 (574); Industrial Cooling Tower: No. of units 3; Production in Rs. lakhs 157 (162).

### HEAVY ELECTRICAL INDUSTRIES

Electric Motors: No. of units 20 (19); Production in Million H.P. 2 (1·91); Transformers: No. of units 21; Production in Million KVA. 5 (4·84); Motor Starters: No. of units 11 (12); Production in Nos. 4,30,000 (3,52,920); Elec. Steel Sheets: No. of units 1; Production in M. Tonnes 28,000 (28,112).

Cables & Wires: VIR & PVC Cables: No. of units 25 (26); Production in KM 3,90,000 (3,68,434); ACSR & AAC; No. of units 30 (27); Production in M. Tonnes 70,000 (64,860).

Winding Wires: (a) Enamelled Wires: No. of units 25 (24); Production in M. Tonnes 4,200 (8,894); (b) Paper Cotton Covered Wires and Strips: Production in M. Tonnes 10,000 (2,800).

(a) Paper Insulated Power Cables: No. of units 7; Production in KM 2,300 (2,358); (b) PVC Power Cables: No. of units 10; Production in KM 14,200 (11,677); Bare Copper: No. of units 4; Production in M Tonnes 1,700 (1,007).

### HEAVY ENGINEERING INDUSTRIES

Steel Castings: No. of units 41 (42); Production in MT 43,100 (47,202); M.T. Castings: No. of units 14; Production in MT 12,700 (11,100); S. G: Castings: No. of units 13 (12); Production in MT 1,460 (892); C. I. Castings (incl. Alloy Iron): No. of units 95 (127); Production in MT 1,58,000\* (1,75,700\*).

C. I. (Spun Pipes): (a) C. I. Spun Pipes: No. of units 8; Production in M.T. 1,20,000 (1,33,078); (b) Vertically Cast: No. of units 10 (12); Production in MT 10,000 (2,316); C.I./Steel Shorts and Grits: No. of units 3 (2); Production in MT 2,600 (1,400 est.).

#### INSTRUMENTS

Industrial Process Control Instruments: No. of units 7 (9); Production in Rs. Million 26 (21·8); Scientific and Surveying Optical Instruments, Mathematical Instruments: No. of units 12; Production in Rs. Million 17 (26·17); Water Meters: No. of units 6; Production in lakh Nos. 1·25 (1·07); X-Ray Electromedical Equipment: No. of units 5; Production in Rs. Million 15 (16·14); Medical/Surgical Instruments Equipment: No. of units 7; Production in Rs. Million 8 (7·15); Photographic Industry: No. of units 2 (1); Production in Nos. 80,000 (74,492); Electrical Measuring Instruments: No. of units 8; Production in lakh Nos. 1·5 (1·2); House Service Meters (Poly Phase and Single Phase): No. of units 14; Production in lakh Nos. 15 (13·2).

## HEAVY MECHANICAL INDUSTRIES

Bright Bars: No. of units 9; Production in M. Tonnes 47,000 (31,000); Seamless Steel Tubes: No. of units 1; Production in M. Tonnes 27,000 (24,429); E.R.W. Tubes: No. of units 6 (4); Production in M. Tonnes 27,000 (21,301); Black & Gray Tubes: No. of units 11 (13); Production in M. Tonnes 3,00,000 (2,55,495); Welding Electrodes: No. of units 20 (18); Production in M. R. Metres 230 (217); Steel Wire Ropes: No. of units 10 (9); Production in M. Tonnes 17,110 (13,372); Railway Wagons: No. of units 16; Production in Nos. in terms of 4-Wheelers 16,000 (14,500); Lifts: No. of units 4; Production in Nos. 540 (402); Cranes (other than Trucks & Crawler mounted): No. of units 27 (23); Production in M. Tonnes 7,000 (5,572); Steel Structural Fabrication like Tr. Towers, buildings structures, Bridges, Penstocks, Hydraulic structures and other light and medium structures: No. of units 116 (107); Production in M. Tonnes 1,70,000 (1,41,957); Electric Hoists: No. of units 9 (8); Production in Nos. 700 (427); Chain Pulley Blocks: No. of units 5; Production in Nos. 2,500 (2,098).

## LIGHT MECHANICAL INDUSTRIES

Bicycles Complete: No. of units 12; Production in Nos. 19,50,000 (19,52,176); Bicycle parts and accessories: No. of units 31 (28); Production in Rs. Million 146·86 (106); Ball & Roller Bearings: No. of units 6; Production in Mill. Nos. 13·20 (12·09); Duplicators: No. of units 2 (3); Production in Nos. 4,980 (4,012); O. P. Lamps: No. of units 1; Production in Nos. 46,475 (53,750); Stoves: (1) Pressure Types: No. of units 2 (1); Production in Nos. 22,422 (18,545); (ii) Non-Pressure Types: No. of units 2; Production in Nos. 4,99,588 (4,34,203); Sewing Machines: No. of units 5; Production in Nos. 3,94,039 (4,23,220); Typewriters: No. of units 4; Production in

Nos. 39,925 (45,665); Zip Fasteners: No. of units 2; Production in Metres 36,29,844 (31,79,962); Steel Balls: No. of units 3; Production in 100 Nos. 1,03,00,000 (1,01,69,937); Needles: (i) Gramophone: No. of units 2; Production in Mill. Nos. 360 · 510 (466 · 267); (ii) Hand Sewing: No. of units 2; Production in Mill. Nos. 236-702 (190.385); (iii) Sewing Machines: No. of units 2; Production in Mill. Nos. 7.47 (6.85); Addressing Machines: No. of units 2; Production in Nos. 690 (584); Data Processing Machinery: No. of units 2; Production in Nos. 3,000 (2,793); Calculating & Adding Machines: No. of units 1; Production in Nos. 6,300 (4,741); Expanded Metals: No. of units 1; Production in Tonnes 85-102 (138·292); Grinding Media: No. of units 5 (6); Production in Tonnes 1,200 (9197·506); Auto Leaf Springs: No. of units 11; Production in Tonnes 22,967 · 2 (20,144 · 26); Industrial Coil Springs: No. of units 2; Production in Tonnes 659.6 (505.074); Machine Screws: No. of units 7 (6); Production in Mill. Nos. 408 (417.057); Wood Screws: No. of units 5; Production in Mill. Nos. 1,316 (1.363.589); Building Hardware: No. of units 8 (6); Production in Tonnes 4,702 (810.501); Razor Blades; No. of units 5; Production in Mill. Nos. 850 (757.53); Crown Corks: No. of units 2; Production in Mill. Nos. 1,400 (1,141); Hurricane Lanterns: No. of units 5; Production in Mill. Nos. 2.88 (3.23); Time Pieces: No. of units 6 (4); Production in Mill. Nos. 0.64 (0.54); Watches: No. of units 2; Production in Mill. Nos. 0.42 (0.36); H.T. Bolts & Nuts: No. of units 5; Production in Tonnes 5,200 (4,350·676); Collapsible Tubes: No. of units 5; Production in Mill. Nos. 241 (237·616); Umbrella Ribs; No. of units 1; Production in Mill. Doz. Sets 0.38 (0.43); Steel Link Chains: No. of units 2; Production in Tonnes 880 (724.575); Wire gauge, wire netting and chain link fencing: No. of units 3 (2); Production in Tonnes 1,120 (348); Bolts, Nuts, Rivets & Dogspikes: No. of units 18; Production in Tonnes 37,300 (28,332.25); Clocks: No. of units 3; Production in Mill. Nos. 0.078 (0.078); Valves & Cocks: No. of units 7 (8); Production in Mill. Nos. 0.85 (0.89); Steel Furniture: No. of units 13; Production in Tonnes 21,160 (26,112); Agricultural Implements: No. of units 24 (21); Production in Tonnes 20,000 (22,000); Agricultural Machinery: No. of units 8; Production in Tonnes 2,000 (1,275); Industrial Roller Chains: No. of units 4; Production in Rs. lakhs 103.30 (13.38); Buckets: No. of units 9; Production in Tonnes 5,292 (4,509.15).

#### CEMENT

Cement: No. of units 45 (44); Production in Tonnes 13,500,000 (11,943,373).

# CARBON PRODUCT

Cinema Arc Carbons: No. of units 2; Production in Million pairs 4 (5·18); Calcined Petroleum Coke: No. of units 1; Production in Tonnes 66,000 (65,338); Pencils: No. of units 3; Production in lakh gross 5 (5); Midget electrodes: No. of units 1; Production in Million pieces 313 (324·8); Graphite electrodes: No. of units 1; Production in Tonnes 2,991 (2,402); Carbon Paste: No. of units 1; Production in Tonnes 3,944 (2,593); Carbon black: No. of units 1 (Nil); Production in Tonnes 38.

#### CERAMICS

Refractories: No. of units 43; Production in Tonnes 6,50,000 (6,61,610); Insulators H.T.: No. of units 7; Production in Tonnes 15,500 (13,280); Insulators L.T. No. of units 14 (13); Production in Tonnes 2,000 (1,236); Sanitaryware: No. of units 13; Production in Tonnes 13,000 (12,772); Glazed Tiles: No. of units 4; Production in Tonnes 17,000 (14,080); Crockery: No. of units 19;

<sup>\*</sup> This does not include the figures of units which have ceased reporting statistical data.

Production in Tonnes 12,800 (10,680); Stoneware Pipes: No. of units 11; Production in Tonnes 32,000 (35,001); Stoneware Containers: No. of units 11; Production in Tonnes 12,530 (9,949); Abrasive Grains: No. of units 1; Production in Tonnes 2,400 (1,935).

#### PAPER INDUSTRY

Paper & Paper Board: No. of units 56; Production in Tonnes 6,80,000 (6,48,000); Newsprint: No. of units 1; Production in Tonnes 45,000 (30,800); Rayon Grade Pulp: No. of units 1; Production in Tonnes 60,000 (55,800); Paper Grade Pulp: No. of units 1; Production in Tonnes 20,000 (4,000).

### TIMBER INDUSTRY

Plywood: (a) Teachest: No. of units 27 (71); Production in Million Sq. Mtrs. 6,703 (11,585); (b) Commercial: Production in Million Sq. Mtr. 17·793 (16·836); Hard Board: No. of units, 3; Production in Million Sq. Mtrs. 6·934 (4·815); Insulation Board: No. of units 1; Production in Metric Tonnes 2,172 (1,813); Particle Board: No. of units 8; Production in Million Sq. Mtrs. 0·974 (0·755); Cork Products: (a) Cork Stoppers: No. of units 2; Production in Million gross 2·224 (1·430); (b) Cork Discs: No. of units 2; Production in Mill. gross 8·880 (9·588); (c) Cork Sheets: No. of units 2; Production in Mill. gross 1·639 (1·145); Safety Matches: No. of units 6; Production in Mill. Boxes 32·470 (30·729).

### LEATHER INDUSTRY

Vegetable Tanning & Hides: No. of units 33; Production in Cow Hides (1 buff. hide-2 cow hides) 23,28,000 (28,35,422); Chrome tanning of hides: No. of units 12; Production in Hides 8,25,000 (8,09,878); Western type of leather footwear: No. of units 9; Production in pairs 95,00,000 (96,00,706); Indian type leather footwear: No. of units 9; Production in pairs 85,00,000 (85,57,509); Glue: No. of units 4; Production in Kgs. 21,16,000 (18,61,310); Pickers: No. of units 1; Production in Nos. Nil. (5,35,680); Myrobalan Extracts: No. of units 2; Production in Tonnes 700 (954).

# RUBBER MANUFACTURES

Automobile Tyres: No. of units 8; Production in Nos. 41,00,000 (34,38,351); Automobile Tubes: No. of units 7; Production in Nos. 41,00,000 (32,98,060); Bicycle Tyres: No. of units 11 (12); Production in Nos. 24,00,000 (246,19,926); Bicycle Tubes: No. of units 11 (13); Production in Nos. 18,00,000 (181,89,869); Camel Back: No. of units 11; Production in M. Tons 12,000 (11,649); Rubber & Canvas Footwear: No. of units 14 (17); Production in Million Pairs 56 (57:235); Fan & Vee Belts: No. of units 6; Production in Nos. 55,00,000 (52,76,278); Carbon Black: No. of units 2; Production in M. Tons 32,000 (27,496); Reclaimed Rubber: No. of units 4; Production in M. Tons 10,000 (9,906).

# PAINTS AND SURFACE COATING MATERIALS

Paints: No. of units 17 (50); Production in Tonnes 46,676 (64,663); Titanium Dioxide: No. of units 1; Production in Tonnes 4,089 (4,909); Aluminium Paste/Powder: No. of units 3; Production in Tonnes 845 (674); Zinc Oxide: No. of units 4 (6); Production in Tonnes 3,519 (6,586); Red Lead: No. of units 3 (4); Production in Tonnes 2,074 (3,396); White Lead: No. of units 1; Production in Tonnes 485 (651); Synthetic Resins: No. of units 18 (22); Production in Tonnes 9,746 (12,041); Chrome Colours: No. of units 5 (9); Production in Tonnes 1,461 (1,427); N.C. Lacquers (Pigmented and Ancillaries):

No. of units 4 (8); Production in Million Litres 1,944 (1,924).

# COSMETICS AND TOILET PREPARATIONS

Soap: No. of units 43; Production in M. Tons 2,35,000 (2,16,494); Glycerine: No. of units 20; Production in M. Tons 11,000 (10,236); Metallic Stearates: No. of units 6; Production in M. Tons 120 (216); Fatty Acids: No. of units 10; Production in M. Tons 21,000 (12,968); Synthetic Detergents: No. of units 5 (4); Production in M. Tons 21,600 (18,675); Textile Auxiliaries: No. of units 13; Production in M. Tons 16,900 (12,426); C.M.C.: No. of units 2; Production in M. Tons 3,500 (3,302); Resin Finishes: No. of units 7 (6); Production in M. Tons 5,800 (5,676); Tooth Powder: No. of units 5; Production in Kgs. 4,34,600 (4,48,188); Tooth Paste: No. of units 8; Production in kgs. 48,25,800 (38,01,689); Talcum Powder: No. of units 16; Production in Kgs. 39,63,000 (37,72,775); Face Powder: No. of units 11; Production in Kgs. 12,709 (3,97,227); Face Cream & Snow: No. of units 13 (5); Production in Kgs. 6,72,000 (11,91,900).

#### FOOD PROCESSING INDUSTRIES

Biscuits: No. of units 32 (30); Production in Tonnes 62,600 (61,789); Confectionery: No. of units 29; Production in Tonnes 9,879 (15,862); Flour Milling: No. of units 129 (111); Production in Tonnes 15,64,860 (13,70,907); Cigarettes: No. of units 13; Production in Mill. pieces 59,423 (60,416); Breakfast Foods: (i) Corn & Wheat Flakes: No. of units 1; Production in Tonnes 167 (350); (ii) Processed & Rolled Oats: No. of units 1; Production in Tonnes 331 (300); (iii) Processed Pearl Barley: No. of units 3; Production in Tonnes 1,910 (1,700); Malt Extract: No. of units 2; Production in Tonnes 2,025 (2,166); Guargum: No. of units 5; Production in Tonnes 5,800 (10,476); Fruit & Vegetable preservation: No. of units 36; Production in Tonnes 48,600 (45,000); Meat & Meat Products: No. of units 4; Production in Tonnes 737 (483); Filter Rods for cigarettes: No. of units 1; Production in Mill. pieces 590 (428); Aerated Water: No. of units 22 (21); Production in 100 bottles 60,41,051 (45,41,000); Protein Isolates: No. of units 1; Production in Tonnes 57 (68); Open Top Sanitary Cans: No. of units 8; Production in Tonnes 11,696 (12,645); Liquid Glucose: No. of units 5; Production in Tonnes 22,000 (21,949); Dextrose: No. of units 2; Production in Tonnes 9,500 (9,300); Industrial Enzymes: No. of units 1; Production in Tonnes 1,062 (513); Chocolate & Cocoa Powder : (i) Chocolate & Drinking Chocolate : No. of units 3; Production in Tonnes 1,300 (1,296); (ii) Cocoa Powder: No. of units 3; Production in Tonnes 200 (191); Sweetened Condensed Milk: No. of units 4; Production in Tonnes 6,440 (8,144); Infant Milkfood: No. of units 5; Production in Tonnes 14,225 (11,829); Milk Powder, whole and skim: No. of units 7; Production in Tonnes 8,000 (8,154); Malted Milk Foods: No. of units 7; Production in Tonnes 9,130 (8,864); Weaning Foods: No. of units 2; Production in Tonnes 295 (246); Protein Foods: No. of units 3; Production in Tonnes 284 (222); Instant Tea: No. of units 2; Production in Tonnes 228 (88); Instant Coffee: No. of units 2; Production in Tonnes 717 (873); Modified Milkfood for Infants: No. of units 2; Production in Tonnes 401 (376); Starch: No. of units 8; Production in Tonnes 1,06,150 (77,000).

### GLASSWARE AND ALLIED INDUSTRIES

Glass and Glassware: No. of units 46; Production in Tonnes 3,00,000 (2,50,000); Enamelware: No. of units 6; Production in Million pieces 25 (25.6); Synthetic Stones: No. of units 1; Production in Kgs. 16,000 (15,600).

# INDUSTRIAL GASES AND MISCELLANEOUS CHEMICALS

I. Industrial Gases: 1. Oxygen: No. of units 50; Production in thousand cubic meters 35,000 (34,444); D. Acetylene Gas: No. of units 34; Production in thousand cublic meters 5,700 (5,646); Nitrogen Gas: No. of units 11; Production in thousand cubic meters 2,500 (1,930); Hydrogen Gas: No. of units 6; Production in thousand cubic meters 700 (659); Argon Gas: No. of units 3; Production in thousand cubic meters 130 (145); Nitrous Oxide: No. of units 3; Production in thousand cubic meters 215 (213); Carbondioxide Gas: No. of units 24; Production in thousand cubic meters 10,200 (10,127).

II. Basic Electroplating Salts: Nickel Sulphate: No. of units 7 (6); Production in Tonnes 430 (415); Nickel Carbonate: No. of units 3; Production in Tonnes 2 (4); Nickel Chloride: No. of units 5; Production in Tonnes 75 (76); Cadmium Oxide: No. of units 2; Production in Tonnes 10 (10); Chromic Acid: No. of units 5; Poduction in Tonnes 500 (507).

III. Heat Treatment Salts: Cyanide type: No. of units 3; Production in Tonnes 800 (784); Non-cyanide type: No. of units 3; Production in Tonnes 650 (609); Tempering salts: No. of units 1; Production in Tonnes 35 (33); Economisers, Tempering salts & Cutting oils: No. of units 2; Production in Tonnes 400 (399).

IV. Water Treatment Salts: Sodium Hexameta Phosphate: No. of units 1; Production in Tonnes 450 (465); Aloflo Powder: No. of units 1; Production in Tonnes 600 (639); Sodium Tripoly-phosphate: No. of units 1; Production in Tonnes 4,000 (3,889); Sodium Aluminate: No. of units 2; Production in Tonnes 600 (639).

V. Fluxes: Gas Welding: No. of units 3; Production in Tonnes 15 (17); Soldering: No. of unit 1; Production in Tonnes 5 (5); Submerged Arc Welding: No. of units 2; Production in Tonnes 200 (192).

VI. Foundry Chemicals: Fluxes: No. of units 1; Production in Tonnes 750 (711); Binders: No. of units 3; Production in Tonnes 800 (786); Dressings: No. of units 2; Production in Tonnes 450 (463); Dioxiding Tubes: No. of units 1; Production in Tonnes 200 (203); Exothermics: No. of units 1; Production in Tonnes 200 (207); Misc. Compounds: No. of units 1; Production in Tonnes 250 (245).

VII. Barium Salts: Barium Sulphate: No. of units 1; Production in Tonnes 300 (437); Barium Nitrate: No. of units 3; Production in Tonnes 1,000 (800); Barium Carbonate: No. of units 2; Production in Tonnes 1,500 (1,500).

VIII. Catalysts: Vanadium Pentoxide Catalyst: No. of units 1; Production Kilo Litres 120 (116); Platinum Rhodium Catalyst: No. of units 2; Production in Kgs. 225 (234); Nickel Catalyst: No. of units 2 (1); Production in Tonnes 125 (121).

IX. Miscellaneous Chemicals: Activated Bleaching Earth: No. of units 1; Production in Tonnes 2,200 (2,224); Activated Carbon: No. of units 2; Production in Tonnes 500 (586); Rare Earth Chloride: No. of units 1; Production in Tonnes 4,000 (4,091); Potassium Permanganate: No. of units 2 (1); Production in Tonnes 1,000 (746).

#### AGRO-INDUSTRIES

Agricultural Tractors: No. of units 5; Production in Nos. 16,000 (13,799); Power Tillers: No. of units 1; Production in Nos. 300 (228); Diesel Engines (stationery): No. of units 30; Production in Nos. 1,25,000 (11,847); Petrol Kerosene Engine: No. of units 1; Production in Nos. 1,300 (998); Power driven pumps: No. of units 32; Production in Nos. 3,40,000 (3,30,672); Petrol Dispensing Pumps: No. of units 1; Production in Nos. 1,300 (998).

#### CONSTRUCTION EQUIPMENT

Loco|Diesel Shunters: No. of units 1; Production in Nos. 75 (58); Air Compressors: No. of units 11; Production in Nos. 5,362 (6,267); Road Rollers: No. of units 6; Production in Nos. 343 (142); Fort Lift Trucks: No. of units 7; Production in Nos. 672 (502); Fans & Blowers: No. of units 9; Production in Nos. 17,187 (17,960); Mobile Cranes: No. of units 1; Production in Nos. 75 (87); Shovels|Excavators: No. of units 2; Production in Nos. 74 (74).

#### INDUSTRIAL EXPLOSIVES

Blasting Explosive: No. of units 1; Production in Tonnes 26,000 (24,393); Safety Fuse: No. of units 2; Production in Mill. Colis 8·536 (9·37); Detonators: No. of units 2; Production in Mill. Nos. 108·23 (86·14); Detonating Fuse: No. of units 1; Production in Mill. Mets. 10·348 (8·0); L.O.X. Explosives: No. of units 1; Production in Tonnes 1,920 (1,712).

# BROADCASTING

# EXPANSION OF MEDIUM WAVE

THE high power 1,000 Kw medium wave transmitter, ordered from USSR, has started transmission from Aug. 15, 1969 from the Calcutta region for about four hours daily. Its rated capacity is for a 16-hour output a day.

The other similarly powerful medium wave transmitter is being set up near Rajkot.

## COMMERCIAL BROADCASTING

Commercial Broadcasting on the Vividh Bharati channel for Bombay, Poona and Nagpur was extended to Calcutta from Oct. 15, 1968 and to Delhi and Madras-Tiruchi from April 1 and April 13, 1969 respectively. The present total duration of the Vivid Bharati Commercial Service at all the 14 centres is 14 hours every day. A proposal to extend the Commercial Service to Chandigarh-Jullundur,

Bangalore-Dharwar, Ahmedabad-Rajkot, Kanpur-Lucknow-Allahabad and Hyderabad-Vijayawada is under consideration.

During 1968-69, the Bombay-Poona-Nagpur, Calcutta and Delhi Commercial Service brought Rs. 82,22,548.03 and during the six months of 1969-70 the above areas and Madras-Tiruchi area together brought Rs. 1,12,91,065.25.

As on Dec. 31, 1969, there were 107 Advertising Agencies on the rolls of Commercial Broadcasting Service.

An important innovation during 1969-70 was the introduction of nine headline-bulletins with a duration of a minute and a half in Hindi in the Delhi Commercial Service.

#### AIR CODE

In consultation with all parties and State Governments Government of India have finalised a 9-point code for broadcasts by individuals. Under it, AIR will not allow any broadcasts containing:

- (i) criticism of friendly countries,
- (ii) attack on religion and communities,
- (iii) any thing obscene or defamatory.
- (iv) incitement to violence or any thing against maintaining law and order,
- (v) any thing amounting to a contempt of court,
- (vi) aspersions against the integrity of the President, Governors and Judiciary,
- (vii) attack on a political party by name,
- (viii) hostile criticism of any State of the Union or the Union Government, and
- (ix) any disrespect for the Constitution.

#### BUDGET

For the financial year 1969-70, against the sanctioned grant of Rs. 11,87,57,000 under Demand No. 63 — Breadcasting (excluding 41 — Capital Outlay on Broadcasting) the expenditure incurred up to the end of December 1969 was Rs. 7,27,86,900.

As regards Revenue Receipts for 1969-70, against the Budget Estimates of Rs. 15,09,46,500, the anticipated revenue as extimated on the basis of the Revised Estimate for 1969-70 would be Rs. 15,55,27,000 showing an increase of Rs. 45,81,200 which is mainly due to increase in Broadcast Receiver Licences and more revenue from the Commercial Broadcasting Service.

#### **TELEVISION**

The Experimental Television in Delhi is gaining ground—although slowly. At present there are in all less than 8,000 TV licensed sets in the capital: schools have 595 and the villages round about 75 sets installed for special agricultural programmes. The Department of Atomic Energy has made these available to the villages. The DAE (Department of Atomic Energy) of India and NASA of USA, have entered into an agreement to try TV in four clusters of about 500 community receiving sets in each of them, by direct reception from the synchronous

satellite. For the first stage of the experiment, NASA is putting a satellite into orbit and making it available to India for the experiment. The next satellites to replace this would be entirely of Indian make. NASA's Satellite after 6 months of trial and testing will be available for reception in India by the beginning of 1973.

Two attempts to introduce TV in India in a big way are at work side by side. All India Radio is moving to have studios in Bombay, Calcutta, Madras and elsewhere and then the facilities will be extended to other eities and towns. This may be called TV for the classes; while the other attempt, sponsored by the Department of Atomic Energy and NASA is exclusively for the masses of neglected localities, cut off from other means of communication. In the AIR's proposition, individual viewing will be encouraged while in the DAE-NASA project emphasis is exclusively on community viewing.

### **PROGRAMMES**

Memorial Lectures: Dr. Rajendra Prasad Memorial lectures (Hindi) were started by All India Radio in 1969. Dr. Hazari Prasad Dwivedi delivered the first series (Dec. 1969) on Guru Nanak. Sardar Patel Memorial lectures for 1969 were delivered by Dr. K. G. Saiyidin, (Dec. 29-31, 1969) on Significance of Gandhiji as Man and Thinker.

#### Language Lessons

All India Radio is helping study of languages by broadcasting language lessons from many stations. Sanskrit is taught in 52 lessons. In the light of comments and suggestions received so far, it is proposed to recast the lessons for an all-India service.

Hindi lessons continue to be broadcast from non-Hindi speaking regions. For the year 1970-71, Hyderabad, Bangalore and Punjab will use these lessons for their respective regions. Other language lessons that were broadcast from the stations were: Bhopal (Malayalam); Jaipur (Kannada); Lucknow and Delhi (Tamil); Patna (Telugu); Ranchi (Punjabi). Allahabad is wanting to introduce Oriya or Assamese and Delhi, Bengali during the current year.

# BROADCAST RECEIVER LICENCES AS ON 31-12-1969

(by Postal Circles) Concessional Total Possession Name of Domestic -Com-De-Licence Fee circle Cheap Com-School Hosincluding mercial mons-Dealer Nonmunity Surcharge pital tration dealer 2 3 4 5 7 6 9 11 8 10 Rs. Andhra 8,61,820 1,97,439 8,689 95,20,026.00 2,679 101 12,216 682 3,383 250 1,35,572 Assam 13,467 3,013 229 20.57,397.00 21 1,451 179 451 11 Bihar .. 2,31,186 45,514 36,32,155.50 655 582 23 3,340 390 1,068 7 Delhi .. 3,01,647 1,52,230 48 125 8,725 291 58,91,264.50 2,463 88 Gujarat 7,18,068 1,12,325 1,624  $\substack{1,12,07,437\cdot 50\\15,44,744\cdot 00}$ 807 304 9,501 420 2,771 124 J. & K. 92,016 27,542 1,876 22 989 183 394 3 Kerala 2,39,376 18,584 3,790 1,254 40,79,304.00 7,639 90 855 48 Mysore 4,93,739 56,717 71,22,291.50 6,110 2,077 319 10,374 195 1,508 3,828 Maharashtra ... 11,93,828 1,14,824 21,227 1,97,50,638.00 1,159 60 19,470 497 3,467 698 Madhya Pradesh 3,99,356 52,14,386.50 47,607 3,229 83 7.183 110 440 1,351 Orissa ... 1,38,331 24,504 1,340 13,10,584.00 436 74 1,939 494 662 61 Punjab 6,54,000 1,29,54,231.00 3,62,964 3,645 1,051 407 14,340 600 3,522 126 Rajasthan 2,55,870 35,71,516.00 61,879 825 1.115 235 6,666 271 446 1,036 Tamil Nadu 8,68,787 96,441 1,42,21,427.00 16,204 2,689 95 17,062 272 596 2,550 Uttar Pradesh 7,80,919 1,16,99,691.00 3,27,633 4.056 1,963 117 13,904 237 4,535 67 West Bengal .. 6,29,806 1,06,51,239.00 4,63,699 1,120 1,912 121 8,887 163 269 4,580 C.B.P.O. 85,774 9,24,143.50 8,565 24 5 Total 80,80,095 12,53,52,476.00 21,31,934 77,451 18,637 2,014 1,43,686 6,151 6,009 34,601

#### Television Licences (on 31-12-69)

Name of Circle		No. of TV		Revenue re	alised (Rs.)	Total	
		Licences	Licence Fee	Surcharge	Total		
Delhi	97.			11,957	2.76,915.00	32,333.00	3,09,248.00
Punjab	1000			133	2,428.50	806.00	3,234.50
Uttar Pradesh				123	4.454.00	497.00	4,951.00
Maharashtra				90	1,359.50	120.00	1,479.50
Total				- 12,303	2,85,157.00	33,756.00	3,18,913.00

Total No. of Licences (TV & Radio) 1,05,12,881 Total Revenue Realised Rs. 12,56,71,389 · 00

National Programmes.—The Saturday National Programmes of music lasting 90 minutes have been quite popular. It is generally so planned that Northern and Southern (Karnatic) music alternate every Saturday. Arrangements are being made to have this item originate at other places. At present most of the Saturday concerts originate from Delhi and all stations relay them.

Talks.—Important topics of a national character are dealt with by an accepted authority in a nation-wide broadcast on Sundays and Wednesdays at 8.30 p.m. Since its inception in 1953, this programme has featured 527 talks and discussions.

Development Projects, Factories.—In order to make the country plan-minded, a feature on some of the bigger national projects is arranged once a month, and it is put out on the air simultaneously from all the stations.

Vividh Bharati.—The Vividh Bharati Service entered its 13th year of service on October 3, 1969. The Service has an output of 12 hours and 25 minutes of broadcast daily, while on Saturdays its transmission is extended till 23·10 hours, providing an alternate programme to the National Programme of Music.

The Vividh Bharati programmes are broadcast on medium wave transmitters from 33 centres. Between April-December 1969, 2,17,008 copies were produced at the high speed duplicating section.

The most popular feature of the Vividh Bharati Service is the film music programme entitled "Jayamala" broadcast specially for the armed forces and presented by well-known film personalities every week.

The number of listeners' letters received in 1969 was about four lakhs.

#### NEWS SERVICES DIVISION

In addition to the Centralised News Services at Delhi, All India Radio has 25 regional centres supplying regional news. Out of a total of 201 news bulletins which AIR broadcasts daily, 155 are in the Home Service. Delhi broadcasts 73 and 82 are broadcast by the regional stations. For the Home Service, 18 languages and 30 dialects are used. In the External Services, 41 news bulletins are broadcast daily in 22 languages. The total output of the news bulletins is thus about 30 hours every day. Commentary from regional news centres on current topics is introduced, twice a week.

Radio News Reels.—Twice a week, radio news reels of 10 mts. duration, prepared by the News Service Division are broadcast from Delhi for an all-India consumption, and once a week in Hindi. On special occasions such as receptions to visiting dignitaries, or of our leaders visiting other countries, extra "editions" of the radio news reels are broadcast. English, Hindi and other languages are used for these "newspapers of the air."

External Services:—For projecting Indian image abroad and for maintaining contact with Indian residents outside India, the External Services Division of A.I.R. broadcasts programmes round the clock daily in 21 languages,—six Indian and 15 foreign languages including English—for a total duration of 44 hours and 45 minutes. The foreign language broadcasts are put out in 25 transmissions a day and account for 22 hours and 40 minutes of daily broadcast time. The Indian language services are radiated in 16 transmissions a day for a total duration of 22 hours 5 minutes.

When dignitaries from abroad visit India, special programmes are broadcast to regions from which they hail and suitable arrangements are made for correspondents accompanying the dignitaries, to send despatches for broadcasting.

Programme publicity of the overseas broadcasts is achieved through *India Calling*, printed monthly in English and 10 quarterly folders in Arabic, Burmese, Chinese, French, Indonesian, Nepali, Persian, Pushto, Swahili and Tibetian. At present about 20,000 persons are on the mailing list for programme Journals and various folders. Up to November 1969, 1,74,909 listeners' letters were received.

#### AIR STATIONS

Medium-Wave Stations. The first figure within brackets indicates the wavelength in metres and the second figure the frequency in kilocycles per second: Agartala (236.2; 1,270); Ahmedabad-A (352.9; 850); Ahmedabad-B (214.3; 1,400); Aijal (326·1; 920); Ajmer (500·0; 600); Allahabad-A (315.8; 950); Allahabad-B (211.3; 1,420); Bangalore-A (491.8; 610); Bangalore-B (365.9; 820); Baroda (352.9; 850); Bhadravati (375.0; 800); Bhagalpur (204·1; 1,470); Bhopal-A (197·4; 1,520); Bhopal-B (250·0; 1,200); Bhuj (232·6; 1,200); Bikaner (225·6; 1,330); Bombay-A (288·5; 1,040); Bombay-B (545·5; 550); Bombay-C (243.9; 1,230); Calcutta-A (447.8; 670); Calcutta-B (300; 1,000); Calcutta-C (194.8; 1,540); Calieut A (441.2; 680); Calieut-B (275.2; 1,990); Chandigarh\* (245.9; 1,220); Coimbatore (297; 1,010); Cuddappah (333.3; 900); Cuttack-A (310.9; 965); Cuttack-B (222.2; 1,350); Delhi-A (370.4; 810); Delhi-B (280.4; 1,070); Delhi-C\* (219.0; 1,370); Delhi-D (191.1; 1,570); Dharwar-A (220.6; 1,360); Dharwar-B (258-6; 1,160); Gauhati-A (411-0; 730); Gauhati-B (291·26; 1,030); Gulbarga (270·27; 1,110); Gwalior (215·8; 1,390); Hyderabad—A (405·4; 740); Hyderabad— B (282.0; 1,060); Hyderabad-C (245.9; 1,220); Imphal (215.8; 1,390); Indore-A (461.5; 650); Indore-B (188.7; 1,590); Jabalpur (254·2; 1,180); Jaipur-A (202·7; 1,480); Jaipur-B(S.W.) ( . . ; . . ); Jaipur-C (236·2; 1,480); Jaipur-B(S.W.) ( . . ; . . ); Jaipur-C (236-2; 1,270); Jammu (303-0; 990); Jeypore (205-5; 1,460); Jodhpur\* (365.9; 820); Jullundur-A (337.1; 890); Jullundur-B (422.5; 710); Jullundur-C (222.2; 1,350);

<sup>\*</sup> For Vividh Bharati only. Note: When there are only A & B transmitters, B is for Vividh Bharati and when there are A, B & C transmitters, C is earmarked for Vividh Bharati.

Kanpur\* (208·3; 1,440); Kohima (201·3; 1,490); Kurseong (S.W.) (..; ...); Lucknow-A (394·7; 760); Lucknow-B (..; ...); Lucknow-C (329·7; 910); Madras-A (416·7; 720); Madras-B (211·3; 1,420); Madras-C (193·5; 1,550); Mathura (196·1; 1,530); Nagpur-A (508·5; 590); Nagpur-B (454·5; 660); Panaji (340·9; 880); Pasighat (NEFA) (283·0; 1,060); Patna-A (483·9; 620); Patna-B (200·0: 1,500); Pondicherry (400·0; 750); Poona-A (384·6; 780); Poona-B (309·3; 970); Port Blair (208·3; 1,440); Raipur (300·0: 1,000); Rajkot-A (329·7; 910); Rajkot-B (211·3; 1,420); Rampur (294·1: 1,020); Ranchi-A (535·7; 560); Ranchi-B (243·9; 1,230); Sambalpur (348·8; 860); Sangli (240·0: 1,250); Shillong (250·0: 1,200); Siliguri (192·3; 1,560); Simla (S.W.) (93·09; 3,223); Srinagar-A (267·9: 1,120); Srinagar-B (201·3; 1,490); Teju (225·6; 1,330); Tiruchirapalli-A (319·1; 940); Tiruchirapalli-B (202·7; 1,480); Tirunelveli (250·0; 1,200); Trivandrum-B (263·2; 1,140); Udaipur (256·4; 1,170); Varanasi (241·9; 1,240); Vijayawada-A (357·1; 840); Vijayawada-B (200·0: 1,500); Vishakhapatnam (322·6; 930).

Medium wave length remains unchanged throughout the year; its coverage after sunset gets considerably extended.

BBC — Medium wave broadcasts are directed to India among other countries of South Asia from a high-powered transmitter in the Persian Gulf region. This is on 213 m & 428 m from 6·30 a.m. to 8 a.m. and on 428 m only for the greater part of the day (11 a.m. to 7 p.m.) when the other wavelength also becomes operative.

# BROADCAST LICENCES & PRODUCTION OF RECEIVING SETS

Broadcast receiver licences are issued at all head and

sub-post offices at a fee of fifteen rupees per year, and cover the use of receiving sets throughout India.

Broadcast Receiver Licences are issued to Municipalities or other public bodies for the reproduction of broadcast programmes in public places by the Postmaster-General of the State.

A licence issued for this purpose covers the use of one wireless receiver only.

A separate Broadcast Receiver Licence is, however, necessary in the case of clubs, institutions, messes, etc., for reproducing broadcast programmes at dances, concerts, bazaars, etc., to which the public are admitted.

Licence Books of the size of Post Office Savings Bank Account pass-books are now issued at concessional rates for three years or more. Separate books are given for each receiving set. Specially issued stamps of the value of the fee, are affixed on the book and cancelled by the licence issuing authority.

### INDIAN INSTITUTE OF MASS COMMUNICATION

Indian Institute of Mass Communication, (Ministry of Information and Broadcasting) offers practical training to information personnel in the use of different media of mass communication.

The training programme is limited to members of the Central Information Service and information personnel of States. Some places, in each training course, will be offered to candidates under the Colombo Plan and the Special Commonwealth Assistance Programme.

Director : L. R. Nair.

# COMMUNITY DEVELOPMENT PROJECTS AND PANCHAYATS†

A<sup>T</sup> the Centre the Ministry that is responsible for community development projects is the Ministry of Food, Agriculture, Community Development and Cooperation. The Ministry is responsible also for village panchayats.

The entire country has now been covered by the C. D. programme. Out of 5,265\frac{1}{3} blocks into which the entire rural India stood delimited 672 were in stage I, and 2,275 in stage II as on 30th Sept. 1969 and 2,318\frac{3}{4} in the post stage II phase.

Besides 43 Special Multi-purpose Tribal blocks and 415 Tribal Development blocks started during the Second and Third Plan periods respectively, another 31 Tribal Development blocks had been established in different states during 1966–67. No new Tribal Development blocks have been allotted thereafter.

#### COMMUNITY DEVELOPMENT

An outlay of Rs. 20.51 crores had been approved by the planning Commission for different States for 1968-69.

Appraisal of progress during 1968-69 reveals an upward trend as compared to the previous year in the activities pertaining to the distribution of chemical fertilisers and pesticides, minor irrigation, supply of improved seeds, castration of stud bulls, artificial insemination of cattle, adult literacy, pavement of village lanes and construction and improvement of katcha roads.

## PANCHAYATI RAJ

Panchayati Raj system is yet to be fully introduced in Bihar, Jammu & Kashmir, Kerala and Madhya Pradesh. In Kerala, it is under active consideration of a select committee of the Legislature. In Bihar, the three-tier setup exists only in the three districts of Ranchi, Bhagalpur and Dhanbad. The Panchayati Raj institutions are expected to be established in Bihar by Sept. 30, 1970 after the elections to Panchayati Raj bodies are completed.

All the Union Territories except Pondicherry, and Laccadive, Minicoy, and Amindivi Islands, have village panchayats. For the Union Territory of Delhi a Bill providing a two-tier structure of Panchayati Raj with panchayats and panchayat samitis and Rural Area Advisory Committee at the apex level is being considered by the Delhi Metropolitan Council. The Bill to introduce Panchayati Raj in Himachal Pradesh has been passed by the H. P. Assembly and now awaits the President's assent.

There has been an increasing devolution of powers and resources in favour of the Panchayati Raj institutions at various levels in severa listates.

The team appointed to study the role of Community Development and Panchayati Raj Agencies in the basic Land Reform Measures, has submitted its report. It has recommended that it may not be appropriate to invest the Panchayati Raj bodies with statutory executive functions during their present stage of evolution. They could,

\* For Vividh Bharati only. Note: When there are only A & B transmitters, B is for Vividh Bharati and when there are A, B & C transmitters, C is earmarked for Vividh Bharati.

† Source: Report for 1969-70 of the Ministry of Food, Agriculture, Community Development and Cooperation (Department of Community Development), Government of India.

however, be associated with various processes connected with the maintenance of land records, in an advisory capacity. The Committee is also of the opinion that the Panchayati Raj institutions could help foster among the tenants awareness about their rights. The recommendations have been referred to the State Governments and Union Territories for their consideration.

Nyaya Panchayats: Nyaya Panchayats are functioning in all the States except Assam, Andhra Pradesh, Tamil Nadu, parts of Mysore, Kerala, West Bengal and Nagaland. The Circle Panchayats in the Union Territory of Delhi are proposed to be replaced by Nyaya Panchayats. In the Union Territory of Manipur, the entire rural areas in the valley continue to be covered by Nyaya Panchayats.

Local Resources Mobilisation: The quantum of local resources mobilised through taxation by the Panchayati Raj institutions increased from about Rs. 10·15 crores in 1961–62 to Rs. 25 crores approximately in 1965–66. The tax collections during 1968–69 are estimated to be Rs. 26·5 crores. Panchayati Raj bodies in Maharashtra, Gujarat and Tamil Nadu accounted for 65 per cent of the total tax collections in the country; their per capita tax incidence was Rs. 2·66, Rs. 2·53 and Rs. 2·29 respectively.

#### TRAINING AND EDUCATION

The training and orientation of block level and other intermediate personnel continued to be organised at the Composite Training Centres. Training programmes are implemented in the States where the personnel for training are also drawn. Ad hoc assistance to cover the recurring expenditure involved in running the Composite Training Centres continued to be paid to the State Governments during 1969–70 also.

National Institute of Community Development: The objective is to act as an apex institute for providing orientation and training in the philosophy and aims of Community Development and Panchayati Raj to key personnel both officials and non-officials, working at policy making levels; to undertake programmes of study and research in Applied Social Sciences with particular emphasis on planned change through community development; to provide academic guidance to the training centres in different parts of the country and impart training to their instructional staff, and to function as a clearing house for information on Community Development and Panchayati Raj.

The institute conducted six orientation courses during 1969 for senior officials and non-officials and has programmed for some more such courses for the year 1970. A seminar on Panchayati Raj was organised during the year.

Community Development in Universities: Research activities were undertaken through the universities. Research fellowships were awarded to those who were assigned projects. Research projects on Community Development, Panchayati Raj and Co-operation continued to be assigned to universities.

Training of Extension Officers (Industries): Twenty extension officers were given training during the year bringing the total number of Extension Officers (Industries) trained so far to 424.

Training of Youth and Women: The Training of Youth Workers and Leaders and Training of Associate Women Workers are being stepped up during the Fourth Plan period, the former carrying a total Plan outlay of Rs. 10 lakhs and the latter Rs. 24 lakhs. These training programmes carry 100 per cent Central assistance when they are to be implemented through the State Governments.

Training in Applied Nutrition: About 14,890 officials and non-officials were imparted training during the year bringing the cumulative total of persons trained to 80,400. Summer schools were held at the Agricultural University, Ludhiana, the Home Science College, Coimbatore, Orientation and Study Centre, Rajendranagar, Hyderabad and the Agricultural Science College, Bangalore. In all, 107 teachers from various agricultural, veterinary and home science colleges attended.

Fisheries: The fishery programme, both coastal and inland, registered an advance during the year. Increased water area was brought under culture and the cumulative total by March 1969 was 34,427 hectares. Persons who received training in pisciculture during 1969 were 3,104 against 923 persons during the previous year.

Poultry: The achievement in regard to setting up of poultry units was considerable. By the end of March 1969, 1,950 block poultry units were set up with 10,652 village units against 1,186 block poultry units and 6,364 village units in the previous year.

Village and Small-Scale Industries: During the year ending March 1969, 1,431 common facility-cum-service workshops were in existence. These workshops provide facilities for repair and maintenance of one or more industrial crafts of the surrounding areas. 332 rural and semi-urban industrial estates with 1,605 industrial units, and a capital investment of Rs. 3·76 crores, were set up upto March 1969. Of these, 270 rural estates with 802 units and an investment of Rs. 113·92 lakhs were located in villages with a population of 5,000 or less. The rest of the industrial estates were located in towns with population ranging from 5,000 to 50,000.

Rural Artisans: Financial assistance for industrial purposes was provided in the shape of loans as well as grants and subsidies. 54,820 rural artisans received loans amounting to Rs. 127 lakhs and Rs. 9·5 lakhs were given as grants to 7,535 artisans during 1968–69.

Health (1968-69): 4,700 primary health centres were functioning in 4,595 C.D. blocks and 670 blocks were without a primary health centre.

Family Planning continued to be an integral part of the Block activities. By March 1969, 8,600 Family Planning Centres were functioning in the blocks. During 1968-69, 9,70,274 sterilization operations were performed in the health centres and contraceptives worth Rs. 19,64,700 were distributed.

Adult Literacy: During the year 1968-69, there were 5,89,823 centres in the blocks which imparted literacy to some 15·2 million adults. The number of centres started and adults made literate during the year ending September 1969 was 59,629 and 21,32,537 respectively as against 42,501 and 14,53,264 respectively in the previous year.

The Rural Man-power Programme: This programme, which is to provide additional employment opportunities in rural areas, is now in the State Sector with the States having option to continue the programme as a State Plan scheme to meet the requirements of specially backward areas and to provide necessary outlays within their plan ceilings. The Governments of Madhya Pradesh, Mysore, Tamil Nadu, Punjab, Uttar Pradesh and West Bengal opted to continue the above programme and an outlay amounting to Rs. 178·16 lakhs has been provided by the above States during 1969–70 for the programme.

The expenditure on Rural Man-power Programme during 1968-69 was Rs. 422.86 lakhs and the employment created was 82.26 lakh man days.

Central Panel: The Government of India has decided to set up a high power central committee for coordination

of rural development and employment to look after the various rural development programmes in the Fourth Plan. The Fourth Plan incorporates various special programmes for the benefit of the weaker sections of the rural population including the development of dry, arid and other areas of defined categories aimed at creating larger opportunities of rural employment. There are plan programmes totalling Rs. 115 crores for small but potentially viable farmers, agriculture labourers and rural artisans.

Tribal Development: Emphasis continues to be laid on pooling of resources available with the development departments for taking up comprehensive programme for economic betterment of the tribals. From 1969-70, the total life of Tribal Development Blocks was extended from 10 years to 15 years by providing a new Stage III. In the new stage there is to be a special central assistance of Rs. 10 lakhs per block.

Youth and Mahila Mandals: Youth and Mahila Mandals continued to be actively associated with the production aspects of the programme. A total number of 9,840 Mahila Samitis had associated themselves with the programme. In March 1969 their membership stood at 1,80,687, 6,333 Youth Clubs had also joined the programme activities with a membership of 1,61,304.

The tentative allocation of funds for training of associate women workers for 1969–70 was Rs. 3,50,000.

During the year 1969-70, 200 'A' grade awards, valued Rs. two lakhs, 400 'B' grade awards valued Rs. 2·4 lakhs and 1,400 'C' grade awards valued Rs. 5·6 lakhs respectively were distributed to Mahila Mandals.

The youth Clubs, Mahila Mandals and other voluntary organisations continued to play their part in providing protective food to benificiaries. The programme of demonstration feeding was also expanded. During the year 1968-69, the number of child-days benefiting children under the programme of demonstration feeding was 297-36 lakhs,

and the corresponding figures for women-days over which nursing and expectant mothers had the advantage of the feeding programme were 30.7 lakhs.

## ACHIEVEMENTS OF C.D. PROGRAMME DURING THE YEAR ENDING SEPTEMBER 1969\*

Agriculture: Improved seeds distributed (quintals) 50,02,900; Chemical fertilizers distributed (quintals) 4,87,33,600; Chemical pesticides distributed (quintals) 3,93,824; Improved implements distributed (Nos.) 5,25,943; Agricultural demonstrations held (Nos.) 4,45,500; Compost Pits dug (Nos.) 21,45,300.

Land Improvement: Net additional area irrigated (hectares) 16,00,560; Land reclaimed (hectares) 3,02,597; Area bunded & terraced (hectares) 15,07,995.

Animal Husbandry: Improved animals supplied (Nos.) 20,671; Improved birds supplied (Nos.) 15,57,476; Animals castrated (Nos.) 35,66,700; Animals artificially inseminated (Nos.) 14,48,301.

Health & Rural Sanitation: Rural latrines constructed (Nos.) 41,509; Pucca drains constructed (mctres) 11,02,149; Village lanes paved (sq. metres) 11,54,993; Soakage pits constructed (Nos.) 90,240; Drinking water wells constructed (Nos.) 22,322; Drinking water wells renovated (Nos.) 30,474.

Social Education: Adult literacy centres started (Nos.) 59,629; Adults made literate (Nos.) 21,32,537; Functional Gram Sahayak camps organised (Nos.) 8,587; Leaders trained (Nos.) 2,85,345.

Communications: New Kacha roads constructed (kms.) 29,774; Existing Kacha roads improved (kms) 46,732; Culverts constructed (Nos.) 16,672.

Village and Small Industries: Value of improved tools and appliances distributed (Blacksmiths) Rs. 2,29,640; (Carpentry) Rs. 3,29,346.

## STATE-WISE DISTRIBUTION OF C.D. BLOCKS AND COVERAGE AS ON SEPTEMBER 30, 1969.

States/Territor	ies	No. of delimited Blocks	Stage I	Blocks allotted Stage II	Post Stage II	Population (lakhs)	Coverage Villages ('00)	Area Sq. Km ('00)
Andhra Pradesh		4451	The Park	201	244	334	271	2,749
Assam		160	9	89	62	118	257	1,220
Bihar		375	119	158	298	452	677	1,739
Gujarat		224	45	60	119	194	186	1,870
Haryana		82		32	50	70	71	436
Jammu & Kashmir <sup>2</sup>		70	D. T. ST. D.	8	62	32	66	1,233
Kerala <sup>3</sup>		143	30	45	68	162	16	387
Madhya Pradesh	14 11 11 11	4164	18	226	172	309	704	4,431
Maharashtra		425	119	144	162	328	359	3,066
Mysore <sup>5</sup>		268	99	701	983	217	264	1,920
Nagaland		21	6	8	7	4	8	165
Orissa		307	13	170	124	174	465	1,558
Punjab		116	10	53	63	91	129	617
Rajasthan <sup>5</sup>		232	23	89	120	189	322	3,423
Tamil Nadu		375	1	197	177	303	141	1,302
Uttar Pradesh		8996		549	350	690	1,126	2,936
West Bengal		341	157		75	301	385	874
Andaman & Nicobar		5	3	109		0.6	4	83
Dadra & Nagar Hav	roli	2	2	2		0.6	1	5
Chandigarh		1 1	4	Mary Mary Town		0.2	Archielle .	
Delhi		5	Marie and the	3			3	1
Goa, Daman & Diu <sup>5</sup>		11		AND THE RESERVE	5	3.0	2.5	37
Himachal Pradesh		697		11		5.5	117	448
Maniana	La train		9	27	33	45	19	223
ATENTA A S		14	1	6	7	6.7		814
	OF 11:00	41	16	13	12	3.4	22	5
Pondicherry	2000	4	ALP THE REAL PROPERTY.	2	2	3.7	4	105
Cripura		15	2	5	8	9.4	49	The second secon
TOTAL		5,26518	672	2,2747/12	2,3183	4,046	5,669	31,661
the same of the sa	The same of the same of	The state of the s		110				Ameil S

<sup>\*</sup> Provisional. ¹ Redelimited into 321 Blocks. ° The stage-wise distribution of Blocks is based on departmental records. ° As on April 2. 1968. ° Redelimited into 218 Blocks. ° As on Oct. 2, 1968. ° Redelimited into 678 Blocks. ° Excludes three Blocks already sanctioned. ° Excludes 101‡ C.D. Blocks on account of T.D. Blocks additionally allotted to States/U. Territories.

# SPORTS

The sports come within the purview of the Ministry of Education.

An advisory body, called the All India Council of Sports, composed of 20 persons eminent in the field of sports and games advises the Ministry in all matters relating to development of Sports in the country.

The Government of India have set up a National Institute of Sports at Patiala to provide adequate facilities for the training of coaches of the highest calibre in various games and sports.

#### TOURNAMENTS

Below we give the results of the national tournaments and principal sporting events of the year 1969-70:

#### Athletics

Men's Events

100 metres: A. P. Ramaswamy (Mysore); 200 metres: F. D'Souza (Bihar); 400 metres: B. S. Bajra (A.P.); 800 metres: Purushottaman (Kerala); 1,500 metres: R. S. Pandey (U.P.); 3,000 metres steeplechase: Gurdial Singh (Delhi); 5,000 metres: E. Sequeira (Maharashtra); 10,000 metres: Mohan Singh (U.P.); 110 metres hurdles: Nirmal Singh (Punjab); 400 metres hurdles: Abdul Husan (Kerala); Long Jump: Labh Singh (U.P.); High Jump: Gopinath Nair (Kerala); Triple Jump: M. Labh Singh (U.P.); Pole Vault: P. L. Pande (U.P.); Javelin Throw: Rajsingh (A.P.); Discus Throw: Baldev Singh (Punjab); Shot Put: Joginder Singh (A.P.); Hammer Throw: Joginder Singh (A.P.); 4 × 100 metres relay: Madras; 20 k.m. walk: Kishen Singh (Punjab); Marathon: D. Y. Biredkar (Mysore); Decathlon: S. Puttar (Bihar); Team Championship: U.P.

#### Women's Events

100 metres: Nirmala Uthiah (Mysore); 200 metres: Janic Satur (Mysore); 400 metres: P. Bhamodkar (M.P.); 800 metres: P. Bhamodkar (M.P.); 4 × 100 metres relay: Mysore; 100 metres hurdles: Manjit Walia (Punjab); High Jump: Jesey Pais (Mysore); Long Jump: I. Saldanha (Mysore); Javelin: V. R. Mary (Mysore); Discus: Subrata Paul (Bengal); Shot Put: Sital Kaur (Punjab); Pentathlon: Rosamma (Madras).

#### Aquatics Men

100 metres freestyle: K. N. Roy (Services); 100 metres backstroke: Hav. Chand Ram (Services); 100 metres breaststroke: M. R. Sharma (Services); 100 metres breaststroke: M. R. Sharma (Services); 100 metres butterfly: V. H. Takle (Maharashtra); 200 metres freestyle: M. S. Rana (Services); 200 metres backstroke: Hav. Chand Ram (Services); 200 metres breaststroke: Ram Deo Singh (Services); 200 metres butterfly: Roshan Singh (Mysore); 400 metres freestyle: M. S. Rana (Services); 1,500 metres freestyle: M. S. Rana (Services); 4 × 100 metres freestyle relay: Services; 4 × 100 metres freestyle relay: Services; 4 × 100 metres individual medley: Tingoo Khatau (Maharashtra); High Board Diving: Bhanwar Singh (Services); Spring Board Diving: Hardayal Singh (Services); Water Polo: Railways; Team Championship: Services.

#### Women

100 metres freestyle: M. Ambrosie (Maharashtra); 100 metres backstroke: M. Ambrosie (Maharashtra); 100 metres breaststroke: D. Solanki (Maharashtra); 100 metres butterfly: M. Ambrosie (Maharashtra); 200 metres

breaststroke: D. Solanki (Maharashtra); 200 metres freestyle: M. Ambrosie (Maharashtra); 400 metres freestyle: M. Ambrosie (Maharashtra);  $4\times100$  metres freestyle relay: Maharashtra;  $4\times50$  metres individual medley: M. Ambrosie (Maharashtra); Team Championship: Maharashtra.

#### Badminton

Men's Singles: Dipu Ghosh (Railways); Men's Doubles: Dipu Ghosh and Romen Ghosh (Railways); Mixed Doubles: Suresh Goel and Damayanti Subedar; Women's Singles: Damayanti Subedar (U.P.); Women's Doubles: Shobha Murthy and Maureen Mathias (Maharashtra); Boys' Singles: Malvinder Dhillon (Punjab); Girls' Singles: Maureen Mathias (Maharashtra); Team Championship: Railways (Men); Maharashtra (Women) and Kerala (Juniors).

#### Basketball

Men: Services; Women: Maharashtra; Junior Boys': Maharashtra.

#### Billiards

Michael Ferreira (Maharashtra); Snooker: Shyam Shroff (Maharashtra).

#### Boxing

Lightfly: M. S. Vishnakarma (Services); Fly: Narayanan (Services); Bantam: S. K. Thappa (Mysore); Feather: M. Venu (Services); Light: Khim Bahadur (Services); Lightwelter: Bhagwat Singh (Services); Welterweight: Shivaji Bhosle (Services); Light-middle: Ajit Singh (Services); Middle: Hukum Singh (Services); Light-heavy: Gop Kumar (Mysore); Heavyweight: Hawa Singh (Services). Team Championship: Services.

#### Bridge

Team-of-four duplicate: Dr. Naran's team (Delhi): Dr. D. R. Narang, J. Kohli, H. Verma, P. L. Soni, H. S. Virk and D. Kumar; Master Pairs: Dr. C. Balakrishna Rao and K. Appa Rao (A.P.); Mixed Pairs: Mrs. S. S. Yederi and Mario Rodrigues (Bombay).

#### Cricket

India and New Zealand 3-Test series ended with one win for both sides, with one drawn.

First Test: At Bombay: India with 156 and 260 beat New Zealand with 229 and 127.

Second Test: At Nagpur: New Zealand with 319 and 214 beat India with 257 and 109.

Third Test: At Hyderabad: New Zealand with 181 and 175 for 8, deel. drew with India with 89 and 76 for 7.

Australia beat India by 3 matches to 1; one drawn. First Test: At Bombay: India with 271 and 137 lost to Australia with 345 and 67 for 2.

Second Test: At Kanpur: India with 320 and 312 for 7, decl. drew with Australia with 348 and 95 for no loss.

Third Test: At Delhi: Australia with 296 and 107 lost to India with 223 and 181 for 3.

Fourth Test: At Calcutta: India with 212 and 161 lost to Australia with 335 and 42 for no loss.

Fifth Test: At Madras: Australia with 243 and 153 beat India with 163 and 171.

Ceylon vs. India (Schoolboys): Ceylon won two Tests and three others were drawn.

Ranji Trophy: Bombay; Irani Trophy: Bombay; Duleep Trophy: Bombay; Rohinton Baria Trophy (Universities): Bombay; Cooch Behar Trophy (Schools): South Zone; C. K. Nayudu Trophy: Delhi.

# Cycling

Men

1,000 metres sprint: Not held; 400 metres individual pursuit: D. S. Randhawa (Services); 1,600 metres massed start: Amar Singh (Bihar); 4,000 metres team pursuit: Punjab; 1,000 metres time trial: D. S. Randhawa (Services); 1,600 metres team time trial: Punjab; 200 k.m. race: Chetan Singh (Services).

#### Women

2,000 metres lap race: Miss Lina Lobo (M.P.); 1,000 metres massed start: Miss Suman Chadda (Delhi).

#### Football

Santosh Trophy: Bengal; Rover's Cup: East Bengal; Durand Cup: Gorkha Brigade; I.F.A. Shield: Not held.

#### Golf

Men: Chien Chung Chenz (Taiwan); Women: Mrs. Anjani Desai.

#### Hockey

National: Punjab and Railways shared; Gold Cup: Border Security Force; Aga Khan: Not played; International Hockey: West Germany; Beighton Cup: Western Railway.

#### Kabbadi

Men: Maharashtra; Women: Maharashtra.

#### Kho Kho

Men: Gujarat; Women: Madhya Bharat.

#### National Chess

Manuel Aaron (Madras).

#### Squash

Men: S. A. Ispahani; Juniors': D. Nayak.

#### Rugby

Ceylon Rugby Union.

#### Shooting

Men: Dr. Karni Singh (Bikaner); Women: Rajkumari Rajashree (Bikaner).

## Weight-lifting

Flyweight: A. Mondal (Railways); Bantam: S. Vellaisamy (Tamil Nadu); Feather: A. Navis (Services); Light: A. K. Das (Railways); Middle: S. L. Salwan (Services); Light-heavy: A. S. Virk (Services); Middle-heavy: V. Raghavan (Services); Heavy: Balbir Singh (Services); Team Championship: Services.

#### Body Beautiful

Tall Class: T. J. Mathai (Services); Medium: Tapan Mukherjee (Bengal); Short: V. P. Dhand (Services).

#### Table Tennis

Men's Singles: Mir Kasim Ali (Andhra Pradesh); Men's Doubles: F. R. Khodaiji and M. Vyas (Maharashtra); Mixed: F. R. Khodaiji and Kaity Chargeman; Women's Singles: Kaity Chargeman; Women's Doubles: Kaity Chargeman and Usha Mukunda; Junior Boys' Singles: N. R. Bajaj (Maharashtra); Junior Girls': Nayereh Mowla (Maharashtra); Team Championship: Men — Mysore; Women's — Maharashtra; Juniors' — Maharashtra.

#### Asian Tennis

Men's Singles: A. Metrevelli (U.S.S.R.); Men's Doubles: S. Minotra and S. Misra; Mixed Doubles: A. Metrevelli and Miss Ivanova (U.S.S.R.); Women's Singles: Miss Abzandaze (U.S.S.R.); Junior Boys' Singles: Shashi Menon.

#### **National Tennis**

Men's Singles: Premjit Lall; Men's Doubles: Premjit Lall and Jaideep Mukherjea; Mixed Doubles: A. Metrevelli and Miss Ivanova; Women's Singles: Miss Ivanova; Junior Boys' Singles: Shashi Menon.

#### Volleyball

Men: Punjab; Women: Punjab.

#### **Bombay Races**

1,000 Guineas: Mr. Suresh Mahindra's "Multigem"; 2,000 Guineas: Mrs. Talib, Mrs. Currim, Mrs. Rahimtullah & Mr. Kanga's "Loyal Prince"; Indian Oaks: Maharaja and Maharani of Gwalior's "Thunderbird"; Indian Derby: Messrs. Khasotia, Vaziralli and Karaka's "Thunderstorm"; Invitation Cup: Mrs. Talib, Mrs. Currim, Mrs. Rahimtullah & Mr. Kanga's "Loyal Prince".

#### Poona Races

Turf Club Cup: Mr. & Mrs. Mahmood Ali's "Hard Head".

#### Calcutta Races

Calcutta Derby: Mr. Suresh Mahindra, Mr. L. M. Thappar, and Mr. H. P. Au's "The Phoenician".

#### Madras Races

South India Derby: Messrs. M. A. M. Muthia's and A. N. Ramaswami's "Fair Court".

#### Delhi Races

Delhi Derby: Messrs. Chhabda and Mahindra's "Look Out".

#### National Wrestling

48 k.g.: Ved Prakash (Delhi) and Lala Ram (Railways) joint winners; 52 k.g.: M. V. Adkar (Maharashtra); 57 k.g.: Prakash Chand (Railways); 62 k.g.: Shyam Lal (Railways) and Bhaiya Lal (U.P.); 68 k.g.: Mukteshwar Singh (Railways); 74 k.g.: Raj Narain (Delhi); 82 k.g.: Mohd. Sabir (Railways); 90 k.g.: U. Rai (Railways); 100 k.g.: Nirmal Singh (Punjab); Over 100 k.g.: S. N. Singh (Railways); Team Championship: Railways.

# FOURTH FIVE YEAR PLAN\*

(1969-74)

## PLAN IN OUTLINE

THE National Development Council gave its formal approval to the revised draft of the IVth Five-Year Plan on March 22, 1970. The aggregate outlay of the revised Fourth Plan (1969–74) is Rs. 24,882 crores, Rs. 15,902 crores in respect of public sector and Rs. 8,980 crores for the private sector. The resources for the public sector Plan are now expected to increase by Rs. 1,504 crores while those for the private sector are expected to show a decrease of Rs. 1,020 crores, resulting in an overall improvement of Rs. 484 crores in resources for the Fourth Plan.

	TABLE 1	(F	s. crores)
	As in the Draft Fourth Plan	As now worked out	Change
A. Public Sector			
(i) Centre	. 7,934	8,871	+ 937
(ii) States	. 6,066	6,606	+ 540
(iii) Union Territorie	s 398	425	+ 27
Total (A) .	. 14,398	15,902	+1,504
B. Private Sector .	. 10,000	8,980	-1,020
Total (A + B) .	. 24,398	24,882	+ 484

Of the increase of Rs. 937 crores in the Centre's Plan, a sum of Rs. 260 crores will be by way of Central support to financing institutions that will supplement the programmes in the States and Rs. 54 crores will be spent on Centrally sponsored schemes. The increase in Central schemes and institutional support to Central programmes will be Rs. 493 crores and Rs. 130 crores respectively.

The assessment of resources for the Fourth Plan (1969–74) has taken into account the Award of the Fitth Finance Commission, the nationalisation of 14 major commercial banks, acceleration in their branch expansion and deposit mobilisation, particularly in rural areas; reorientation of investment policies of the Life Insurance Corporation and the Employees' Provident Fund; and the more recent trends in receipts and expenditures of public authorities.

The scheme of financing the Fourth Plan marks a distinct departure from the previous Plans. It has been specially designed to serve the objective of growth with stability and promote progress towards self-reliance.

TABLE 2

Distribution of Public Sector Outlays: Centre, Centrally Sponsored, States and Union Territories
(Rs. crores)

Head of Development	Centre	Centrally Sponsored	States	Union Territories	Total
1	2	3	4	5	6
Agriculture and allied Sectors	1104 · 26	126.83	1418 · 21	70.30	2719-60
Irrigation and Flood Control	23.50		1061-11	12.48	1097-09
Power	424.95	22.00	1927 · 42	81.46	2455 · 83
Village and Small Industries	148.65	5.10	134 · 29	10.41	298.45
Industry and Minerals	3150.86		184-21	3.40	3338 • 47
Transport and Communications	2622.00	42.00	489.32	91.90	3245 - 22
Education	241.00	30.00	504.57	53.21	828.78
Scientific Research	140.26		-	A STATE OF THE PARTY OF THE PAR	140.26
Health	53.50	176.50	187-25	19.27	436.52
Family Planning	3000	315-00			315.00
Water Supply and Sanitation	3.80	2.00	343.00	43.20	392.00
Housing and Urban and Regional Development	48.60		149-48	20.55	218.63
Welfare of Backward Classes	0.50	59.50	77.38	5.04	142-42
ocial Welfare	27.43	2.00	10.59	1.41	41.43
abour Welfare and Craftsmen Training	10.00		27.24	2.78	40.02
Other Programmes	90.68		92.35	9.59	192.62
TOTAL	8989.99	780-93	6606 • 42	425.00	15902 · 34

<sup>\*</sup> Source: Fourth Five Year Plan - Revised outlay 1969-74 - by the Planning Commission, Govt. of India, March 1970.

#### REVISED OUTLAY FOR STATE PLANS

The revised outlays for the State Fourth Plans, approved by the National Development Council are (Rs. crores): Andhra Pradesh 420·50; Assam 261·75; Bihar 531·28; Gujarat 455·00; Haryana 225·00; Jammu & Kashmir 158·40; Kerala 258·35; Madhya Pradesh 383·00; Maharashtra 898·12; Mysore 350·00; Nagaland 40·00; Orissa 222·60; Punjab 293·56; Rajasthan 302·00; Tamil Nadu 519·36; Uttar Pradesh 965·00; West Bengal 322·50.

For the Union Territories, the revised outlays are (Rs. crores); Andaman & Nicobar Islands 14·00; Chandigarh 7·75; Dadra & Nagar Haveli 2·30; Delhi 162·65; Goa, Daman and Diu 39·50; Himachal Pradesh 101·40; Laccadive, Minicoy & Amindivi Islands 2·00; Manipur 30·25; NEFA 17·99; Pondicherry 12·50; Tripura 34·66.

TABLE 3
Fourth Plan Sectoral Outlay 1969-74—States

			(Rs. erores)
Head of Development			Revised Outlay (Provisional)
1			2
I. Agricultural Programmes	#. Ja		1212-51
Agricultural Production			336 - 71
Minor Irrigation			494.53
Soil Conservation			121-40
Area Development			21.04
Animal Husbandry			72.38
Dairying and Milk Supply			40.45
Forests	*:*:		74.66
Fisheries	150 00		44.88
Warehousing and Marketing			6.46
II. Co-operation and Community	Devel	op-	
ment			205.70
Co-operation			114.71
Community Development			83.64
Panchayats			7.35
III. Irrigation and Power			2988-53
Irrigation			954.72
Flood Control		* *	106.39
D	**		1927.42
	11000	*	
IV. Industry and Mining			318.50
Large and Medium Industries			157.25
Mineral Development			26.96
Village and Small Industries			134.29
V. Transport and Communications			489.32
Roads			386.33
Road Transport		-	77.32
Ports and Harbours	I SET		12.55
Other Transport			3.40
Tourism			9.72
VI. Social Services			1299-51
General Education			451-19
Technical Education	CONTRACTOR OF THE PARTY OF		53.38
Health			187-25
Water Supply	AND DE		343.00
Housing			88.00
Urban Development			61.48
Welfare of Backward Classes			77-38
Social Welfare			10.59
Labour Welfare and Craftsmen Tra	ining		27-24

VII. Miscellaneous			 92.35
Statistics			 3.27
Information and Publicity			 5.81
State Capital Projects		10000	 26.75
Special and Backward Areas			 49.20
Evaluation Machinery			 0.51
Others			 6.81*
Grand Total	**		 6606 • 42

<sup>\*</sup> Includes Public Co-operation.

### TABLE 4

# Fourth Plan Sectoral Outlays 1969-74-Union Territories

(Rs. crores)

	Head of Development		(I	Revised Outlay Provisional
	1		1 16.	2
I.	Agricultural Programmes			60.42
	Agricultural Production			22.19
	Minor Irrigation			6.19
	Soil Conservation			5.42
	Area Development		**	5.39
	Animal Husbandry		- 15	1.93
	Dairying and Milk Supply Forests	424		14.32
	Forests			4.35
	Warehousing and Marketing			0.63
11.	Co-operation and Community		velop-	
				9.88
	Co-operation			4.10
	Community Development			4.66
	Panchayats		***	1.12
III.	Irrigation and Power		1.0	93.94
	Irrigation			4.56
	Flood Control			7.92
	Power			81.46
IV.	Industry and Mining			13.81
	Large and Medium Industries			3.16
	Mineral Development			0.24
	Village and Small Industries			10.41
V.	Transport and Communication	8		91.90
				71.80
	Road Transport		10	13.36
	Ports and Harbours			2·82 3·23
	Other Transport		**	0.69
	Tourism	• •		145.46
VI.	Social Services			47.71
	General Education			5.50
	Technical Education			19.27
	Health			43.20
	Water Supply	* *		10.28
	Housing Urban Development		Sheet	10.27
	Welfare of Backward Classes		100	5.04
	Social Welfare		-	1.41
	Labour Welfare & Craftsmen	Tra	ining	2.78
VII.	Miscellaneous			9.59
-	Statistics			0.53
	Information and Publicity			2.16
	State Capital Projects			4·00 0·06
	Evaluation Machinery			2.84
	Others			425.00
	GRAND TOTAL			420.00

TABLE 5

# Estimates of Resources for the Fourth Plan

(Rs. crores)

	rores		
	Revise	d Fourth Estimates	
	Centre	States	Total
1	2	3	4
I. Domestic Budgetary resources other than negotiated loans from LIC and State enterprises, market borrowings—			
<ol> <li>Balance from current revenues at 1968-69 rates of taxation</li> <li>Contribution of public enterprises at 1968-69</li> </ol>	1625	48*	1673
fares, freights and tariffs			
(a) Railways	265		265
(b) Posts and Telegraphs	225		225
(c) ARC, IDC, DVC, REC, and Central			ara
Power Generation	259 785		259 1280
(d) Others 3. Retained profits of	100	433	1200
Reserve Bank	165	37	202
4. Market borrowings of			
Central and State		515	1415
Govts. (net)	900	313	1410
5. Borrowings by finan- cial institutions in-			
cluding FCI			
(a) Food Corporation	100		155
of India (b) Others	158 250		250
6. Small Savings	274		769
7. Annuity deposits,			
compulsory deposits,			
prize bonds and gold	-104	Maria 11 22	-104
8. State provident funds	200		660
9. Miscellaneous capital		THE WAY	
receipts (net)	209	E	
TOTAL I	723	2 1502	8734

(Rs. crores)

	Revised Fourth Plan Estimates				
	Centre	States	Total		
1	2	3	4		
II. Additional resource mo- bilisation					
(a) by Centre (i) 1969-70 measures	725	+	725		
(ii) Measures to be un- dertaken in sub-					
sequent years	1375	-	1375		
TOTAL (a)	2100	-	2100		
(b) by States		414	414		
(i) 1969-70 measures (ii) Measures to be		414	414		
(ii) Measures to be undertaken in					
subsequent years		684	684		
TOTAL (b)	20 P. L	1098	1098		
TOTAL II	2100	1098	3198		
<ul> <li>II. Loans from LIC and State enterprises, market bor- rowings (gross)</li> <li>1. LIC loans to State</li> </ul>					
Govts. for housing and water supply		100	100		
2. Market borrowings of State enterprises		261	261		
3. LIC loans for State					
enterprises		145	145		
TOTAL III	The same	506	506		
IV. Total Domestic Budgetary resources	9332	3106	12438		
V. Budgetary receipts corres ponding to external assist ance (net)					
(a) Other than PL 480.	2234		2234		
(b) PL 480 assistance .	380		- 380 - 2614		
TOTAL V .	2614		850		
VI. Deficit financing .	. 850				
VII. Aggregate resources .		) 5100	10002		
VIII. Assistance for State	3500	3500	) -		
IX. Resources for the Plan.		10000			

# HOUSING\*

IT has been estimated that at the beginning of the Fourth Five Year Plan, the shortage of housing is roughly 837 lakh units—119 lakhs in the urban areas and 718 lakhs in the rural areas. If the entire shortage is to be wiped off, the total investment will have to be of the order of Rs. 30,000 crores, whereas the amount allocated is Rs. 216-60 crores in the final document of the IVth Plan. The overall housing shortage is estimated to increase by more than 20 lakh units annually. Against this, the annual rate of new construction, including that in the private sector, is estimated to be about three lakh units only.

Up to the end of March 1969, the Central Government allocated plan funds amounting to Rs. 279.52 crores to the State Governments and Union Territories as financial assistance towards implementation of the Social Housing Schemes of this Department. The States, etc., however, utilised only a sum of Rs. 214.04 crores up to the end of March 1969.

To supplement Government funds, arrangements were made with the Life Insurance Corporation to advance loans amounting to Rs. 113·14 crores (including Rs. 14 crores for 1969-70) to State Governments for housing schemes during the period from 1959 to 1968-69. These loans have

<sup>\*</sup> Source: 1969-70 Report of the Ministry of Health and Family Planning, Works, Housing and Urban Development (Department of Works, Housing and Urban Development), Govt. of India.

been utilised by the States mainly for financing the Middle Income Group Housing Scheme, the Rental Housing Scheme for State Government Employees and the Land Acquisition and Development Scheme.

Under the various housing schemes, according to progress reports so far received, 4,97,968 houses were sanctioned for construction, out of which 3,83,271 were completed. 22,197 acres of land were acquired and 14,371 acres developed for housing purposes.

#### Allocation to some States for 1970-71

The Union Department of Works, Housing and Urban Development has allocated Rs. 6.35 crores to six States for financing housing programmes during the current financial year.

The amount has been provided out of the total loan of Rs. 14 crores to be made available by the Life Insurance Corporation for this purpose.

The State-wise break-up of the amount is as under: Andhra Pradesh Rs. 1·20 crores, Punjab Rs. 85 lakhs, Rajasthan Rs. 80 lakhs, Tamil Nadu Rs. 1·50 crores, Uttar Pradesh Rs. 1 crore and West Bengal Rs. 1 crore. The balance of Rs. 7·65 crores will also be released to the State Governments shortly.

The details of progress, under individual Housing Schemes administered by the Ministry of Works, Housing and Urban Development are indicated below.

# PROGRESS UNDER THE SOCIAL HOUSING SCHEMES

#### Integrated Subsidised Housing Schemes for Industrial Workers and Economically Weaker Sections of Community:

Central assistance amounting to Rs. 67.05 crores was disbursed to the State Governments and Union Territories up to 31st March 1969 for the implementation of the Integrated Subsidised Housing Scheme.

Housing for Industrial Workers: It is intended for lowpaid workers whose wages do not exceed Rs. 350 p.m. The rents recoverable from the workers are based on 50 per cent of the approved cost of construction. If a workerallottee of the house under the scheme crosses the wage limit of Rs. 350 p.m. the State Government have been advised to provide alternative accommodation under the Low Income Group Housing Scheme to such allottee worker. It has been decided that an allottee worker who declines such alternative accommodation when offered to him, should be evicted instead of his being allowed to retain the house even on payment of some additional charges until his wages cross the limit of Rs. 500 per month. It has also been decided that sale of houses under the Scheme should be discouraged as a rule so as to benefit the eligible workers who are actually engaged on productive activity. Requests from the State Governments for the sale of such houses to their present occupants in specific cases, will, however, continue to be considered on merit. Upto the end of September 1969, the States and Union Territories sanctioned projects for the construction of 1,94,314 houses, out of which 1,67,032 houses were completed.

Housing for Economically Weaker Section of Community: Under this Scheme, subsidised rent based on 50 per cent of the cost of construction is charged from the allottees as in the case of houses meant for industrial workers. Upto the end of September 1969, the construction of 6,587 houses was sanctioned, out of which 3,607 have been completed.

## Low Income Group Housing Scheme

Loans under the scheme can be granted for (i) purchase of new ready-built houses from reliable building agencies and (ii) for construction of new houses including residential portions of the premises which are intended to be used for shop-cum-residential purposes. Upto 30th September 1969, 1,71,654 houses were sanctioned, out of which 1,29,717 were completed. Central assistance amounting to Rs. 94·78 crores was drawn by the State Governments and Union Territories upto 31st March 1969.

#### Subsidised Housing Scheme for Plantation Workers

The scheme provides for the grant of financial assistance to planters to the extent of 75 per cent of the approved cost of houses (25 per cent subsidy and 50 per cent loan) for the construction of rent-free houses for their workers. The balance of 25 per cent is to be contributed by the planters. In the case of co-operatives of the plantation workers, financial assistance is given up to 90 per cent of the approved cost of a house — 65 per cent loan and 25 per cent subsidy. The balance of 10 per cent is to be arranged by the co-operatives themselves. The scheme is at present being implemented in Assam, Kerala, Mysore, Tamil Nadu, West Bengal and in the Union Territory of Tripura. The approved cost of a house in Kerala, Mysore and Tamil Nadu is raised from Rs. 3,200 per house and in West Bengal, Assam and Tripura Rs. 4,000 per house.

Upto the end of December 1969, 2,443 houses were sanctioned for construction since the inception of the scheme and 1,614 houses have been completed. A sum of Rs. 37.55 lakhs has been disbursed by the State Govts. upto the end of December 1969 under the scheme.

#### Village Housing Projects Scheme

This scheme provides for the grant of loan assistance to villagers (construction of new houses or for improvement of existing houses) upto 80 per cent of the cost of construction/improvement subject to a maximum of Rs. 3,000 per house. The scheme provides for 100 per cent grants to State Govts. etc., for provision of house-sites to landless agricultural workers and for laying of streets and drains for improving the sanitation of the villages. Technical guidance is provided to villagers and local authorities through the State Rural Housing Cells. 50 per cent of the cost of pay and allowances of the staff of the cell is met from Central grants. As far as possible, assistance under the scheme is to be utilised in selected villages in conjunction with the rural programmes of other Ministries/ Departments. Upto the end of December 1969, 72,453 houses were sanctioned out of which 43,492 have been completed. Loans sanctioned to villagers amount to Rs. 12.01 crores of which Rs. 9.21 crores have been disbursed.

### Middle Income Group Housing Scheme

Under this scheme, persons whose income is between Rs. 7,201 and Rs. 15,000 per annum are eligible to get loan assistance upto 80 per cent of the cost of house including the cost of land, subject to a maximum loan of Rs. 25,000 per house. In the case of houses constructed by the State Governments and their designated agencies, loan assistance equivalent to 100 per cent of the cost of construction, subject to a maximum of Rs. 30,000 per house, is admissible. Loans can also be granted to eligible persons for purchase of ready-built houses from reliable house building agencies.

In the States, the scheme is financed by the loans advanced by the Life Insurance Corporation of India. The

funds required for the Union Territories are provided by the Central Government.

Upto the end of December 1969, loan amounting to Rs.  $45\cdot45$  crores was sanctioned for the construction of 27,718 houses. Rs.  $45\cdot28$  crores have been disbursed and 19,427 houses completed.

# Rental Housing Scheme for State Govt. Employees

This scheme gives loans to the State Governments for constructing residential accommodation for their employees. The funds are provided by the Life Insurance Corporation. The houses constructed are exclusively meant for the State Govt. employees. Upto the end of December 1969, the State Governments sanctioned construction of 22,799 houses at a cost of Rs. 24·64 crores. Of these, 18,382 houses have been completed. The expenditure so far incurred is Rs. 22·17 crores.

#### Land Acquisition & Development Scheme

This scheme assists the State Governments and Union Territory Governments/Administrations to acquire and develop land on a large scale in urban areas to enable them to provide house sites at reasonable rates to prospective builders in the Low Income brackets. Its object is to stabilise land prices and promote urban development by setting up composite housing colonies in a planned way. The scheme is being implemented in the States from the funds made available by the Life Insurance Corporation of India. In the case of Union Territories, requisite funds are being provided by the Government of India.

Upto the end of September 1969, 444 projects for acquiring and developing 57,000 acres of land at a cost of Rs. 68·75 crores were sanctioned. 22,197 acres of land have been acquired and 14,371 acres developed. The expenditure incurred by the State Governments amounts to Rs. 30·37 crores.

#### House Building Advances to Central Government Employees

Central Government employees including those governed by the Payment of Wages Act, 1936, are eligible for loan assistance. Advances for building houses, or for the purchase of ready-built houses/flats by a Government or semi-Government agency or an autonomous institution like the improvement trusts, etc. are granted to the Central Government Employees, subject to certain conditions. The quantum of advance admissible is 48 times the pay of an employee or Rs. 35,000 or the cost of construction/ building, whichever is less provided that the total cost of the building (excluding the cost of land) does not exceed 60 times the pay of the employee or Rs. 80,000 whichever is less. In the case of low-paid employees, however, the ceiling limit applicable is 60 times the pay or Rs. 20,000, whichever is more. Advances are also admissible under this scheme for enlargement of existing houses subject to a maximum of Rs. 12,500.

From 1st April 1969 to 30th November 1969, 1,243 applications for advances aggregating to Rs. 216-96 lakhs

were approved as against 819, aggregating to Rs. 125·07 lakhs during the corresponding period of the last year. Twenty-eight applicants have been sanctioned an advance of Rs. 5·38 lakhs by the Union Territories. Since the inception of this scheme in 1956 till the end of November 1969, 8,645 applications for advances aggregating to over Rs. 11·84 crores of loans have been approved. Out of this amount, approximately Rs. 9·10 crores have been disbursed.

Houses for Central Government Employees: The Union Works and Housing Ministry had sanctioned construction of over 2,200 houses, primarily for low-income Central Government employees in Delhi. Of these, about 1,300 residential units were expected to be available for allotment by June 1970. The new houses would, however, meet only a fraction of the needs. Out of the 1,00,099 Central employees, only 41,690 have been provided Government accommodation, according to the Housing Ministry's report. After the new construction, the Ministry will still be short of 56,209 houses, the number of employees remaining the same.

#### Slum Clearance/Improvement Scheme

Since the inception of the Scheme in May 1956, upto the end of March 1969, a sum of Rs. 34.32 crores has been disbursed to the State Governments. During the same period, 1,13,550 dwelling units were sanctioned, out of which 72,584 units have been completed. The Scheme has now been transferred to the State sector and the State Governments are to execute the schemes with funds given to them as "block loans" within the State Plan ceilings.

#### Jhuggi & Jhopri Removal Scheme

The Scheme aims at providing alternative accommodation on rental basis to unauthorised squatters on Government and public lands in Delhi, numbering about 50,000 families, whose occupation dates from before July 31, 1960. During the year 1969, Government provided Rs. 90 lakhs for the scheme. About 6,000 plots for pre-July 1960 squatters and 4,000 camping sites for post-July 1960 squatters were expected to be ready by the end of the year. In addition, about 1,500 tenements forming part of a continuing project, were expected to be ready by that date.

#### REVOLVING FUND

In pursuance of the Conference of Ministers of Housing and Urban Development, held at Bangalore in June 1969, the Government of India has decided to constitute a Revolving Fund for housing and urban development, with a corpus of Rs. 200 crores to be built up over a period of years, from Governmental allocation and other sources. The Fund will be utilised to finance economically viable projects which have regenerative features. The returns from the projects will be reinvested in further projects to ensure a continual increment of the initial seed capital and progressive building activity.

# INDO-PAKISTAN RELATIONS

Some individual items, incidents that marked Indo-Pakistan relations in the period under review — June 1969 to May 1970:—

1969—June 4: A Pakistan Government spokesman made a strong attack on India in a statement in Islamabad. He said that it seemed to him that India did not intend to eliminate the basic cause of tension and that there could be no cooperation with India unless the Kashmir issue was settled. He also reiterated a previous charge that India's attitude on Kashmir was hardening.

July 4-5: The representatives of India and Pakistan at a meeting in the Pakistan capital of Islamabad signed about 1,500 maps and documents thus setting their seal on the alignment of the border in Kutch, as fixed by the

International Tribunal that enquired into the question. The final agreement was preceded by year-long talks on the exact demarcation on the ground of the boundary in the Rann of Kutch, an issue that had led to hostilities between the two countries earlier. It could be assumed that this question is now finally settled. It may be of interest to note that Pakistan got 350 sq. miles of territory, about one-tenth of what she had claimed.

July 26: A joint communique was issued in New Delhi at the conclusion of the talks between India and Pakistan on the Farakka Barrage dispute. The talks had lasted 12 days. The communique said that another secretariat-level meeting would be held in Islamabad in about four months' time to finish the discussion on technical aspects and get started on the substantive questions. The leader of the Pakistan delegation made four suggestions in this regard. First, there should be guarantees to Pakistan of fixed minimum deliveries of water from the Ganges on a monthly basis at agreed points. Secondly, construction and maintenance in India of such works as may be necessary in connection with the construction of the Ganges Barrage in Pakistan have to be arranged. Thirdly, there should be a permanent Ganges Commission for implementation of the agreement. Finally, machinery and procedures should also be agreed on to settle possible dispute consistent with international usage in this matter.

August I: President Yahya Khan replied to an earlier suggestion made by Mrs. Gandhi in which she had proposed the establishment of joint machinery to examine various issues between the two countries. He said that he was ready to enter into talks for improving relations if there was a guarantee that the talks would include all outstanding issues, and the purpose was to find a solution. He added that Pakistan's concept of a joint body had been conveyed to Mr. Kewal Singh, Secretary for External Affairs, during the latter's visit to Rawalpindi. President Yahya explained as though in reply to India's contention that the smaller differences might be expected to fade away in the course of normal dealings. But the bigger issues vitiated the atmosphere and poisoned relations. It is they that must be eliminated first.

Sept. 2: The External Affairs Minister, Mr. Dinesh Singh said in reply to a letter from a member of Parliament that all the indications were that Pakistani leaders were inflexibly opposed to the resumption of trade with India. India wanted normalization of trade and travel and had taken several steps in this direction and had also made specific proposals. But then there was also evidence that the people of Pakistan realised the benefits of trade with India and wanted its resumption. A leading Pakistani paper, for instance, had published several articles strongly urging the normalization of trade and the resumption of other contacts.

Dec. 13: At a two-day conference of Governors one of the items was a statement by Mr. Dinesh Singh on the assumptions underlying Indian foreign policy. In the course of his speech he expressed the view that there was no danger of a major conflict with Pakistan, though local incidents could occur.

Dec. 20: Reports came of firing by East Pakistan Rifles into Indian territory across the Punarbhaba River in Malda District. The general impression was that it was an attempt to divert attention from domestic difficulties by creating tension in the border. A cease-fire came after the firing lasted about 22 hours.

1970—Jan. 26: It was learnt that India had lodged a strong protest with the Pakistan authorities against the continued sale of Indian properties illegally seized by them during the 1965 conflict. This included in the latest list put

out for sale two rice mills, an ice factory, an oil and a flour mill. The Indian note warned that such a transaction would be illegal, and that the sale should therefore be stopped. It would also be a violation of the Tashkent agreement. India again declared that she was ready to start talks about the restoration of seized property in accordance with the Tashkent agreement.

March 4: The Defence Minister confirmed in the Lok Sabha that the Soviet Union had supplied T-54 and T-55 tanks to Pakistan. He added that there was a perceptible increase in the striking capacity of the Pakistan Air Force since the conflict of 1965. But India's superiority in air remains.

March 6: The West Bengal Chief Minister announced in the State legislature that armed Pakistani soldiers had kidnapped five Forest officers and employees with their rifles and also three fishermen in the 24-Parganas District.

March 27: India protested to Pakistan against the assistance being given by that country to Naga, Mizo and other rebels. It was pointed out that this was against international law, a violation of the Tashkent declaration and a gross interference into India's internal affairs.

April 3: Pakistan turns down India's proposal for West Bengal-East Pakistan border demarcation demanding prior demarcation of Berubari.

April 4: The Indus Waters Treaty expired on March 31 and Pakistan declared that she had no intention to ask for an extention of the transition period since she was not dependent any more on the waters of the eastern rivers.

April 8: Mr. Swaran Singh concedes that eastern border is uneasy as the Chinese continued to face India in strength and Pakistan had augmented her troops. But the border had not become in any sense suddenly live.

April 15: In a speech on foreign affairs in the Lok Sabha, Mr. Dinesh Singh referred to Indo-Pakistan relations. He said that India was willing to discuss all outstanding problems with Pakistan, but there was no encouragement from that country. On the Farakka Barrage, he said that Pakistan had not supplied full technical data, which shows reluctance to enter into constructive talks. India has no objection to Pakistan's participation in non-aligned conferences provided she ceases to be a member of military pacts and so becomes truly non-aligned.

April 30: Concern is expressed in Parliament over the continued large-scale exodus of the minority community from East Pakistan. Energetic measures are demanded to stop the migration and to provide rehabilitation facilities for those who have crossed over.

May 7: In a note delivered to Pakistan the External Affairs Ministry says that the seizure of the property of the minority community as enemy property and other difficulties faced by the minority in East Pakistan particularly were matters of considerable concern to the Indian Government. Steps should be taken to implement the Prime Minister's agreement and the Tashkent declaration.

May 7: The Deputy Minister for External Affairs, Mr. Surendra Pal Singh said in the Lok Sabha that Pakistan's treatment of the minorities especially in the eastern wing was just as bad as the apartheid policy of South Africa. He stated that upto April 29, about 34,500 people of the minority community had arrived in India from East Pakistan. The cause was disabilities and hardships the minority suffered—insecure conditions, economic distress, discriminatory treatment.

May 13: Pakistan Foreign Office hands in a note of protest to the Indian High Commission over the riots in Maharashtra.

There was no basic change in Indo-Pakistan relations during the period under review. Mrs. Gandhi's proposal for a joint machinery to sort out differences and normalize relations held the field. There was no formal outright rejection of this offer, but the fundamental difference in the two opposing stand-points remained. India contended that we should proceed from the less to the more difficult, while Pakistan insisted that attempts at improvement of relations must start with Kashmir and Farakka. Thus in January General Yahya sent a message to the Indian Prime Minister in which he said that Tashkent provided the framework within which outstanding differences can be settled. Earlier Sher Ali Khan, Pakistan's Information Minister declared in New York (Oct. 1969) that Pakistan was ready to hold talks without condition. Again in March 1970, General Yahya Khan said he was ready to meet Mrs. Gandhi to talk things over. But at the back of it all

the essential stand-point never changed. It did not seem that there was much that Pakistan could do by way of any dynamic action. She could not activate affairs in Kashmir with any chance of success. There was little prospect of the issue being raised at the U.N. with any practical benefit to Pakistan. She could not have entertained hopes that China could be induced to exert pressure on India. Pakistan's primary aim throughout was to strengthen her relations with China and to amass as much armaments as possible. Pakistan might also have thought that Russia being somewhat more neutral than before, might be willing to pressurize India a little more than in the past.

Pakistan succeeded in keeping India out of the Rabat conference, while India appeared equally determined to keep Pakistan out of non-aligned conferences. Pakistan consistently turned down proposals for resumption of trade or air services, ease travel restrictions, restore goods seized during the 1965 hostilities and pay compensation for Indian property that was auctioned.

# SINO-INDIAN RELATIONS

THERE was an internal change in China, which can be regarded as being of significance to countries which have had close relations, friendly or otherwise with her. This is that the more acute phase of the cultural revolution was over and China seemed to be getting ready to return to the international arena from which she seemed to have retired voluntarily when the cultural revolution was at its height. One tangible evidence of this was that a number of Chinese ambassadors who had been previously recalled had now started returning to their posts. All this meant that old links would have to be taken up and adjustments made in readiness for China's re-entry. But so far as India was concerned there was nothing to support any assumption that Chinese policy had changed.

A point of view was growing in India that the freeze in Sino-Indian relations should be broken and some initiatives taken, though there was a good deal of vagueness when one came down to hard practical details. Few in India had ever thought of Sino-Indian differences as having been fixed for all time, and the Government had through the appropriate spokesman made it clear that India was prepared to seek a settlement consistent with her national interests and national honour. On one occasion the Prime Minister went to the extent of saying that we were prepared to talk to China without any pre-conditions, though, one may add, the chances of agreement on the border issue are slim.

The Indian attitude may be summed up in some such way as this: we have no enmity with the people of China. We wish them well. We also do not wish to interfere in China's internal affairs. But where China violates the norms of international behaviour and threatens our security or when China attempts subversion in our country we must be ready to meet them. Chinese policies will have to change one day. We cannot say when this will happen. But when it does we shall not be found wanting when it comes to responding to the new situation that may be created. There are no real grounds for Chinese suspicions of India. It is true that we have friendly ties with both Russia and the United States, but we have no intention of joining anyone in an effort to encircle China, if that is what China is afraid of, assuming, of course, that anyone

has any such intentions. That is our attitude. But on the Chinese side there is no evidence that China is anxious to have an honourable settlement with India.

One may next consider some of the reasons why some people in India are asking that there should be some flexibility in our handling of Sino-Indian relations. Vast changes are taking place all round us. For instance, there are obvious attempts to improve Russo-Chinese as well as U.S.-Chinese relations despite the many major obstacles to any such understanding. Russia is engaged in negotiations with China even when the two armies are facing each other in a hostile posture. The United States has unilaterally relaxed travel and trade restrictions at the very time when the Chinese are using such abusive language about American leaders. But relations between India and China increase Indian dependence on the Soviet Union beyond a point that can be regarded as healthy. Prolonged and implacable hostility between India and China can only be to the benefit of Pakistan. There is also a case for saying that a strong attempt should be made to see whether India's defence burden can be reduced. A final settlement may not be feasible, but negotiations by the very fact that they are happening can sometimes contribute towards a reduction of tensions.

But the difficulties in the way of Sine-Indian understanding cannot be under-estimated. China attacked this country in 1962 and is now in possession of Indian territory in Aksaichin. She is continually inciting trouble on our north-eastern border. She is trying hard to destroy Indian influence in the three Himalayan kingdoms in an effort to isolate them completely. She arms and inspires Naga and other rebels, and tries subversion by encouraging guerilla and separatist movements. She maintains a sizable force on our border, and is not above staging diversionary attacks. Finally she conspires with Pakistan against this country, endorses Pakistan's stand on Kashmir and promotes a spirit of intransigence in that country. All this imposes a heavy defence burden on India.

It does sometimes seem as though Sino-Pakistan relations are so close that it is unlikely that either of them will agree to any final solution of the difficulties without the tacit consent of the other.

The difficulties are indeed formidable. But those who ask that we should be ready to take active steps in the direction of Sino-Indian understanding would still contend that this does not negative their basic stand. Such a policy would still amount to a demonstration of goodwill, of our readiness to come to an honourable settlement, when China wills it so. It may actually reduce tension. In any case, it will certainly not enhance them. Some individual items, incidents that marked Sino-Indian relations during the period under review — June 1969 to May 1970:—

1969 — June 25: India sends a strong protest note to China through the Chinese Embassy in Delhi against a road built by Pakistan with the help of Chinese labour in the Pakistan-occupied part of Kashmir. It was pointed out that Kashmir is part of India and that neither Pakistan nor China has a locus standi in the area concerned. The road served as a link between Pakistan-held Kashmir and Chinese Sinkiang. The road cut across the Karakoram Range and could be of great strategic value. Another note of protest on the same subject was handed in simultaneously at the Pakistan High Commission in New Delhi.

The road is of strategic importance, because as the note to Pakistan pointed out, it connects the Sinkiang-Tibet net-work of roads to territory in north Kashmir, and will give the Chinese easy access to areas in Kashmir. Since the road is not necessary for trade and commerce, the reason for building it can only be for purposes of military expansionism. It thus becomes a potential threat to peace and tranquillity in the region. India deplored that Pakistan should be seeking Chinese help in creating further tension, something that is a clear violation of the Tashkent spirit.

In the note to China the Government of India made the point that this was one more proof of China's collusion with Pakistan in undermining Indian sovereignty, her intention to make trouble between India and Pakistan and in the process abet Pakistan's illegal occupation of Indian territory.

It was officially explained in Delhi that the road has dangerous potentialities because it will help to cut the distance between Tibet and Ladakh on the one hand and Gilgit on the other from 1,000 to a bare 200 miles.

July 1: At a news conference in D'jakarta the Prime Minister, Mrs. Gandhi said that she could not see any real danger from China at the moment and that she believed that China posed no real threat to India despite the border issue. If war did at all break out it would be the conventional kind of war.

July 31: In the course of a news conference in New Delhi, Mrs. Gandhi referred to China and said that although the armies of India and China faced each other at some points on the long border, it cannot be called an active confrontation, there was plenty of propaganda war.

Dec. 13: At the two-day conference of Governors in New Delhi, among others Mr. Dinesh Singh also spoke. With reference to China he said that his assessment was that China was still to settle down after the excitement created by the cultural revolution. He gave the impression that India was prepared to reciprocate any genuine gesture of goodwill from China. Mr. Dinesh Singh apparently seemed to feel that Chinese attitude might be more flexible than some people might think.

1970-Jan. 2: It became known that the Chinese had extended their air base at Phari Dzong in the Chumbi

Valley. The purpose of the extension was to improve communications and logistics on China's border with India. It was believed that this could bring some sensitive northeast Indian targets within the reach of Chinese aircraft.

March 9: The Dalai Lama made an appeal to all freedom-loving countries to support Tibet's struggle for freedom from the Chinese grip.

April 15: In a speech on foreign affairs in Lok Sabha, Mr. Dinesh Singh referred to India's relations with China. He said that India was prepared to discuss all differences with China keeping in view India's national honour and interest. India would consider the question of exchanging ambassadors when the time was right.

April 27: Concern was expressed in the Lok Sabha at the successful launching of a space satellite by China. There was a feeling that this affected India's defence, and a statement by the Government was necessary.

April 28: There was a debate in the Lok Sabha en a motion which called attention to the launching of a satellite by the Chinese. The Defence Minister, Mr. Swaran Singh, declared that India was re-examining her space programme now geared to a ten-year time frame to see if it can be speeded up. The Defence Minister conceded that China was well on the way to developing intercontinental ballistic missiles, though problems of re-entry and terminal guidance remained to be solved. In reply to suggestions that India should go in for nuclear weapons, Mr. Swaran Singh simply reiterated the Government's firm contrary stand. India should be reconciled to the fact recognized elsewhere that there was no safeguard against a nuclear attack. He also emphasized that though India had her bilateral problems with China, India would not be a party to a policy of mere containment.

May 13: Mr. Dinesh Singh rejects demands (made in the Lok Sabha) for any type of recognition of Taiwan (Formosa). In fact there is no such country as Taiwan in the U.N. sense.

May 18: Mr. B. R. Bhagat says (in answer to a motion in the Rajya Sabha) that the Government stood by its policy not to have trade dealings with China, until that country vacated all Indian territory. But Mr. Bhagat appears to have hedged this with qualifications which seemed to make the statement somewhat ambiguous. One was a remark that trade itself was a means of normalising relations. He also endorsed a view-point put forward in the Rajya Sabha that there should be some separation between trade and politics. The trend all over the world was in the direction of such separation.

#### Chinese Satellite

The Chinese satellite led many to think again about Sino-Indian relations. Some people asked whether there should be any change in India's own nuclear policies in view of the fact that China now appeared to be capable of firing an ICBM. The old points both pro and con once again came under review. The Government stuck to its old decision not to use nuclear power for military purposes. But some observers seemed to have doubts about the wisdom of the decision. In logic, it should make little difference considering that when China first exploded her atom bomb the future course of development was all foreseen. The ICBM itself does not affect India, as China already has her IRBMs which do. But those who urged a change in policy argued on grounds of prestige as well as of protection against possibilities of blackmail.

# GENERAL ELECTIONS (1967)

NDIA, the second most populous country in the world went to the polls on February 15, 1967 for the fourth time after she attained independence on August 15, 1947.

# POLITICAL PARTIES AND SYMBOLS\*

For the 1967 Election, the Election Commission had prescribed 23 symbols. Sixteen of them were "Reserved Symbols" and the remaining seven "Free Symbols."

The Commission classified political parties as recognised and others. A political party which contests in more than one State and secures more than 4 per cent of the votes cast in the country as a whole in a general election is classified as a recognised multi-state party for the next general election. Each recognised party is allotted a reserved symbol and the candidates sponsored by it for contesting from different States are allotted the same symbol.

#### RECOGNISED MULTI-STATE PARTIES

There are now eight recognised multi-state parties. Their names and symbols allotted to them are: 1. Indian National Congress: Two bullocks with the yoke on. After the split of the Indian National Congress into two, one led by Mr. Nijalingappa and the other led by Mr. Jagjiwan Ram both have applied for the same symbol. The dispute is before the Election Commission. Till the time of going to press, no final decision has been made. 2. Communist Party of India: Ears of corn and sickle; 3. Swatantra Party: Star; 4. Communist Party of India (Marxist): Hammer, sickle and star; 5. Bharatiya Jana Sangh: Lamp; 6. Praja Socialist Party: Hut; 7. Samyukta Socialist Party: Tree; and 8. Republican Party of India: Elephant.

# RECOGNISED PARTIES IN DIFFERENT STATES

The names of recognised State Parties, their States and symbols† respectively are:

- 1. Muslim League ; Kerala ; Ladder.
- 2. Kerala Congress; Kerala; Horse. 3. (i) Dravida Munnetra Kazhagam, Tamil Nadu; (ii) United Goans (Furtado Group); Rising Sun.
- 4. Peasants and Workers' Party; Maharashtra; Cart. 5. (i) Shiromani Akali Dal (Master Tara Singh Group); Punjab; United Goans (Sequeira Group), Goa, Daman and
- Diu : Hand. 6. (i) Forward Bloc, West Bengal; (ii) Maharashtra-
- wadi Gomantak, Goa, Daman and Diu; Lion. 7. All Party Hill Leaders' Conference, Assam; Flower.
- 8. Shiromani Akali Dal (Sant Fatch Singh Group),
- Punjab; Scales. 9. Jammu and Kashmir National Conference, Jammu and Kashmir; Plough.
- 10. Republican Party (Maharashtra); Elephant.
- 12. Naga National Organisation, Nagaland.
  13. Jana Congress (Original)
- 14. Bangla Congress (West Bengal).

Shiromani Akali Dal (Master Tara Singh Group) in Punjab, the Democratic National Conference in Jammu & Kashmir, Frente Populare and the United Goans (Furtado Group) in Goa, Daman & Diu have failed to obtain sufficient electoral support and their recognition has been withdrawn.

The following symbols, though reserved for multi-state parties (Tree for S.S.P. and Elephant for the Republican Party) have also been made available to:

- 1. Democratic National Conference; Jammu and Kashmir: Tree.
- 2. (i) Frente Populare; Goa, Daman and Diu; (ii) People's Front, Pondicherry : Elephant.

#### FREE SYMBOLS

The free symbols, as already stated, are available for allotment to candidates of political parties which are not recognised and to independent candidates, such candidates can indicate the free symbol which they wish to be allotted. The Election Commission has laid down the procedure to be followed if two or more candidates indicate their preference for the same symbol. If one of the candidates is a sitting member of the Lok Sabha or the State Assembly and had been allotted that symbol at the previous election, the returning officer will allot the symbol, to that candidate. In all other cases the allotment will be by draw of lots.

### ELECTION OF PRESIDENT AND VICE-PRESIDENT

After the demise of President Zakir Hussain in May 1969, the polling for the next President took place on Aug. 19, 1969. The result was declared on Aug. 20. Mr. V. V. Giri was elected President.

The polling for the Vice-Presidentship took place on Aug. 30, 1969 and the result was declared on the same day. Mr. G. S. Pathak was elected Vice-President.

## LOK SABHA-ALL-INDIA ANALYSIS

Electorate: 249,003,334. Votes polled: 152,724,611. Polling percentage: 61:33. Valid votes: 145,866,510. Invalid votes: 6,830,460. Percentage: 4.68.

Votes polled by parties:

Name of pa	rty	Valid votes	Percentage
1. Congress		59,402,754	40.73
2. Jan Sangh		13,715,931	9.41
3. Swatantra		12,659,540	8.68
4. S.S.P		7,171,627	4.92
5. C.P.I		7,564,180	5.19
6. C.P.I. (M)		6,140,738	4.21
7. P.S.P		4,456,487	3.06
8. Republican		3,607,711	2.48
	and Inde-		
9. Other parties pendents	and Indo-	31,147,542	21.37

# ASSEMBLIES-ALL-INDIA ANALYSIS

Electorate: 247,104,213. Votes polled: 151,793,713. Polling percentage: 61.43. Valid votes: 146,256,509. Invalid votes: 8,535,072. Percentage: 5.96.

Votes polled by parties :

Name of party	Valid votes	Percentage	
1. Congress 2. Jan Sangh 3. Swatantra 4. S.S.P 5. C.P.I. (M)		57,252,357 12,567,918 9,519,231 7,424,633 6,579,652 5,906,109	39·96 8·78 6·65 5·19 4·60 4·13
6. C.P.I. 7. P.S.P. 8. Republican 9. Other parties and In pendents	de-	4,868,720 2,188,973 36,948,731	3·40 1·53 25·81

<sup>\*</sup> Symbols of the first ten are given.

\* The Election Commission has allotted the following four additional symbols to Kersla, viz.

(1) Water Wheel and Plough (Halchaka), (2) Pot, (3) Camel and (4) Flaming Torch.

Below we give particulars about the electorate and the number of seats, valid votes polled, uncontested gains and number of Scheduled Caste and Scheduled Tribe members in Lok Sabha and Assemblies in the 1967 General Elections:

sac ad a		Lok Sabha					Assemblies				
States and Union Territories	Electorate	Seats	Sche- duled Castes	Sche- duled Tribes	Un- con- tested gains	I votes	Seats	Sche- duled Castes	Sche- duled Tribes	Un- con- tested gains	Valid votes polled
Andhra Pradesh	20,569,096	40	6	2	_	13,574,005	5 285	40	11		13,853,086
Assam	5,326,341	13	1	1	_	2,987,767	120	8	20		3,107,184
Bihar	27,729,950	53	7	5	-	13,646,162	318	45	29		13,538,623
Gujarat	10,692,948	24	2	3	_	6,479,211	168	11	22		6,381,092
Haryana	4,386,711	9	2		-	3,052,219	81	66	15		3,029,941
J&K	1,581,140	4		The last		842,624	53	47	6		799,572
Kerala	8,616,556	19	2	_	_	6,271,477		11	2	A STATE OF	6,280,942
Madhya Pradesh	18,393,340	37	5	8		9,254,773		39	61		9,115,360
Maharashtra	22,225,473	45	3	3	_	14,391,706		15	16		13,371,735
Mysore	12,778,996	27	4			7,661,418	214	29	2		7,508,894
Nagaland	214,951	1			1		46		Maria		
Orissa	9,883,171	20	3	5		4,061,992	140	22	34		4,028,258
Punjab	6,311,501	13	3			4,284,551	104	23			4,257,113
Rajasthan	12,176,265	23	4	3		6,814,419	184	31	21		6,756,264
Tamil Nadu	20,796,700	39	7			15,439,094	234	42	2		15,310,702
Uttar Pradesh	42,131,487	85	18			21,783,680	425	89			21,467,966
West Bengal	20,249,169	40	8	2		12,862,101	280	55	16		12,663,030
Andaman & Nicobar Islands	47,064	1				36,732	200	_			-
Chandigarh	76,232	1	_		_	49,155					
Dadra & Nagar Haveli	29,564	1		Maria Maria		21,248		_			
Delhi	1,684,714	7	1			1,121,161		TE T			
Goa, Daman & Diu	418,394	2		T. W.	_	277,786	30				274,921
Himachal Pradesh	1,542,315	6	1		_	776,764	60	14	3		766,119
Laccadive, Mini- coy & Amindivi Islands	14,505	1				11.00					
Manipur	483,049	2	The same			11,807	-	-			312,015
Pondicherry	216,689	1	1 11	11/19/1		315,162	29	8			-
Cripura	601,964	2	TO A NEW	1		158,872 438,758	0	3	9		433,692
Total 2	349,003,334		77	36		15,866,510		498		Mary .	3,256,509

# PARTY POSITION-LOK SABHA

		Con	ıg.	Swa	h.	CPI	. (	CPI(	M)	PS	P	SSI	,	JS		Rep		Othe	ers	Ind.	Site.
States and Union Territories	Seats	Contested	Won	Contested	Won	Contested	Won	Contested	Won	Contested	Won										
Andhra Pradesh	40	40	34	19	3	22	1	9	_	1		3	_	6	-	2	_	_	_//	61	2
Assam	13	13	9	1	_	4	1	-	-	4	2	2	_	3	_	-	_	1	1*	18	-
Bihar	53	53	34	25	_	17	5	2	-	32	1	34	7	48	1		-	5	1†	99	4
Gujarat	24	24	11	21	12	2	-	-		3	_	2	_	-	_	2	_	-		28	1
Haryana	9	9	7	2	-	3	_	2	-	1	-	5	_	7	1	2	-	-	-	36	1
Jammu & Kashmir	4	4	3	1	-	-	-	-	_	_	_	-	-	2		-	-	5	1‡	1	
Kerala	19	19	1	3	_	3		9	9	1	-	3	3	4	-		_	7	2§	12	1
Madhya Pradesh	37	37	24	2	1	6	-	_	-	15	-	11	-	32	10	7	-	3@	Щ	61	2
Maharashtra	45	45	37	4	-	7	2	-	-	8	1	5	2	26	-	17	-	110	2c	62	1
Mysore	27	27	18	11	5	_	-	2	-	5	2	2	1	5	3	3	-	-	-	45	1
Nagaland	_		_	-	_	_	-	4	-	-	-	-	-		-	-	-	-	-		
Orissa	20	20	6	17	8	3	-	_	-	5	4	2	1	2	-	-	_	_	-	16	1
Punjab	13	13	9	6	-	3	-	2	4	-		1	-	8	1	2	-	15d	3d	25	-
Rajasthan	23	22	10	14	8	3	-	1	-	1	-	3	-	7	3	1	-	-	-	64	2
Tamil Nadu	39	39	3	8	6	7	-	5	4	1	-		1	4	-	2	-	25b	25b	36	1
Uttar Pradesh	85	85	47	38	1	17	5	6	1	27	2	43	8	77	12	24	1	_	_	190	8
West Bengal	40	40	14	3	_	11	5	16	5	2	1	3	1	7	1	1		13e	7e	44	7
Andaman & Nicobar Islands	1	1	1	1	_	-	_		_	-	_			_	_	-	-	_	_	4	_
Chandigarh	1	1	_	1	_	_	_	_	1	_	-	-	-	1	1	-	-	-	-	6	-
Dadra & Nagar Haveli	1	1	1	1	-	-	-	1	-	1	-	-	-	1	-	_	-	_		-	-
Delhi	7	7	1	-	_	-		_	-	-	-	2	-	7	6	6	-	-	-	24	-
Goa, Daman & Diu	2	1		_		1	-	-	-	1		_	-	_	_		-	3	11	10	1
Himachal Pradesh	6	6	6	1		1		. 1	-	1	-	-	-	3	4	1	_	-	49	11	-
Laccadive, Minicoy & Amindivi Islands	1			_	_		-	-				-			_	_	-		_	5	1
Manipur	2	2	-	_	-	1	1	-	-	-		1	-		_	-	-		-	6	1
Pondicherry	1	1	1	_	-		_	_	-	-	-	_	-		_	-	-	1	-	1	
Tripura	2	2	2	-	-	-	-	2	1	-	-	-	-	-	-	-	-	E .	-	MIL ST	-
All India Total	515	512	279	179	44	110	23	58	19	109	13	122	23 2	51	35	70	1	89	43	865	35

#### PARTY POSITION—ASSEMBLIES

		•	Cong.	Sw	- 666	J	S		SSP		CPI
States and Union Territories	Seats	Contested	Won	Contested	Won	Contested	Won	Contested	Won	Contested	Won
Andhra Pradesh	285	285	163	90	29	80	3	8	1	104	11
Assam	120	117	70	13	2	20		17	4	22	7
Bihar	318	318	128	126	3	271	26	199	68	97	24
Gujarat	168	167	93	147	66	16	1	14			
Haryana	81	81	48	12	3	48	12	23		12	1700
Jammu & Kashmir	53	53	39	-		29	3	No. of the last		3	
Kerala	133	133	9	6	100	24		21	19	22	19
Madhya Pradesh	296	296	167	21	7	265	78	114	10	33	1
Maharashtra	269	269	202	40	-	165	4	48	4	41	10
Mysore	214	214	124	45	16	37	4	17	6	6	1
Nagaland	46					6100 2		The Sales		_	de anti
Orissa	140	140	31	101	49	19	-	9	2	31	7
Punjab	104	100	47	10		49	9	8	ĩ	20	5
Rajasthan	184	182	89	107	48	63	22	38	8	20	1
Famil Nadu	234	234	50	27	20	24		3	2	32	2
Uttar Pradesh	425	425	199	207	12	401	98	254	44	96	13
West Bengal	280	280	127	21	1	58	1	26	7	62	16
Delhi				558 L						-	
Goa, Daman & Diu.	30	STATE OF	200								3 12
Himachal Pradesh	60	60	34	5	1	33	7	1		11	2
Manipur	29	28	15	3	-	00		12	4	6	1
Pondicherry	30			S S		HART R			-		
Pripura	30	30	27			5	NE.	1		7	1
All India Total	3,453	3,412	1,661	976	257	1.607	268	813	180	625	121

	S1 -	S. Gal		CPI	(M)	P	SP	Re	p.	Ot	thers	s shirt	Ind.
States and Unio	n Te	erritories	,	Contested	Won	Contested	Won	Contested	Won	Contested	Won	Contested	Won
Andhra Pradesh	11.00			83	9	3		11	1			401	68
Assam			1 400	14		35	5	-	-	10*	7*	239	25
Bihar				32	4	182	18	2	1	60†	13†	739	33
Gujarat			104.4			37	. 3	4		AL		228	5
Haryana				8		3		24	2	-	-	260	16
Jammu & Kashmir	r			ST-ME		3				58‡	8‡	_	
Kerala				59	52	7				76a	19a	75	15
Madhya Pradesh	1	1	9 6	9		110	9	38		336	26	634	22
Maharashtra				11	1	65	8	79	5	59d	19d	464	16
Mysore	1			10	Î	52	20	12	1	1e	-	331	41
Nagaland						-	-0		-		No.	-	1985-
Orissa				10	1	33	21			47f	26f	213	3
Punjab				12	3	9		17	3	120g	26g	257	10
Rajasthan	190 pro			22		17		5		4h		434	16
Tamil Nadu				22	11	4	4	13		174c	138c	245	7
Uttar Pradesh	100			57	1	167	11	168	10	1110		1238	37 31
West Bengal		See of	4	135	43	26	7	100		122i	47i	327	31
Delhi		The state of	**	100			CATALON OF THE PARTY OF THE PAR	1		1220		-	Mark The State of
Goa, Daman & Din			-					The latest		62j	28j	156	2
Himachal Pradesh		**		0					T	ALCOHOLD TO SERVICE	201	147	16
76			7 90	6		2		4		The same		99	9
	***			5	The state of	5			-			_	7 10
Pondicherry	110	**		10					The state of			28	-
Tripura		****	**	16	2		-	-	·			-	
All India Total				511	128	768	106	378	23	826	333	5,554	376

<sup>\*</sup>All party Hill Leadets' Conference; † Jana Kranti Dal; † J. & K. National Conference; a. Kerala Congress and Muslim League (61-5; 15-14); b. Jana Congress; c. Dravida Munn:tra Kazhagam; d. Peasants & Workers' Party; c. Peoples Front; f. Jana Congress; g. Akali Dal (Sant Fatsh Singh Group 59-24 & Master Tara Singh Group 61-2); h. Janata Party; i. Forward Bloc 42-13 and Bangla Congress 80-34; j. Maharashtra wadi Gomantak (26-16), United Goans (6-0), United Goans — Sequeira Group (30-12).

#### 1967 ELECTIONS

Lok Sabha: No. of seats 523; No. of constituencies 523; No. of contesting candidates 2,369.

Legislative Assemblies: No. of seats 3,563; No. of constituencies 3,487; No. of contesting candidates 16,503; Period of poll days 9.

Percentage of Poll: Parliamentary constituencies 61·10; Assembly constituencies 60·66; Number of polling stations 260,000; Number of ballot boxes 1,300,000; Number of ballot papers 500,000,000; Electorate 250,681,530.

#### **MID-TERM ELECTIONS**

The mid-term general elections in West Bengal, Bihar and Punjab took place on Feb. 9, 1969, and in Uttar Pradesh on Feb. 5, 7, 9 and 20. In Nagaland the second general election took place on Feb. 6, 8 and 10. In Pondicherry the mid-term elections took place on March 9, 1969.

The following tables give details of the elections in the respective States.

#### BIHAR

No. of voters in the State; 29,281,772 No. of votes polled: 15,455,159.

No. of votes rejected: 4,50,301.

Party		Seats contested	Seats won
Indian National Congress	7	317	118
Swatantra Party		41	3
Bhartiya Jana Sangh		302	34
Communist Party of India		161	25
Samyukta Socialist Party	1/1	190	52
Communist Party of India (Mar	rxist)	30	3
Praja Socialist Party		93	18
Bhartiya Kranti Dal	AVS.	87	6
Backward Classes Party of Indi	a	32	
Bihar Prantiya Sudharvadi Par		2	
Akhil Bhartiya Hindu Mahasab	ha	3	-
Janata Party	10 500	137	14
Lok Tantrik Congress		98	9
Proutist Bloc of India		49	
Bihar Prant Hul Jharkhand		15	5
Republican Party of India	10.79	13	
Akhil Bharatiya Ramrajya Pari	shad	4	-
Revolutionary Socialist Party		5	-
Shoshit Dal		100	6
Forward Bloc		2	1
Socialist Unity Centre of India		12	1
Independents		449	24
		2,142	318

#### NAGALAND

No. of voters: 177,480.

No. of votes polled giving also percentage: 1,39,328 (78.75).

No. of votes rejected: 265.

Party	Seats con- tested	Seats won	Valid votes polled	Percentage
Independents Nagaland Nationa-	74	8	54,792	39.59
list Organisation United Front of	40	10	53,507	38.66
Nagaland .	30	22	30,109	21.75

#### PUNIAB

No. of voters: 66,30,000

No. of votes polled giving also percentage: 48,00,000 (72.03).

No. of votes rejected: 1,27,000.

Party	Seats contested	Seats won	Valid votes polled	Per- centage
Congress	102	38	1,834,569	39.28
Akali Dal	65	43	13,81,916	29.59
Jana Sangh	29	8	4,12,623	8.84
C.P.I	28	3	211,886	4.54
C.P.I.(M)	10	2	144,610	3.10
SSP	7	2	39,109	0.84
Swatantra	6	1	42,649	0.91
S.P	3	1	23,617	0.51
R.P.I.	22	Nil	51,148	1.10
Janta Party	14	1	66,068	1.41
R.P.I Amb.	10	Nil	21,328	0.40
Independents	75	4	59,899	9.42

#### UTTAR PRADESH

No. of voters: 4,48,66,491

No. of votes polled giving also percentage: 24,264,995 (54·08)

No. of votes rejected: 800,860 Valid votes: 23,464,135

Party	Seats contested	Seats	Valid votes polled	Per- centage
Congress	424	211	7,884,050	33.60
Bharatiya Kranti Dal	403	99	4,931,552	21.02
Jana Sangh	393	49	4,157,459	17.71
C o mmunist Party of India	104	4	693,773	2.96
Communist Party of I n d i a (Marxist)	19	1	97,311	0.41
Samyukta Socialist Party	256	33	1,798,019	7.66
Swatantra	68	5	291,190	1.24
Republican Party of India	158	1	718,952	3.06
Independents and others	951	19	2,476,305	10.55
Forward Bloc	11		24,820	0.11
Praja Socia- list Party	84	3	390,704	1.67
Total	2,871	425	23,464,135	

#### WEST BENGAL

No. of voters: 20,628,394

No. of votes polled giving also percentage: 13,405,304, (66.75).

00 10).					The second second second second				
No. of votes	rejected: 3	53,786, (2	2.58)	BALL BALL	Lok Dal	56		135,648	1
			Valid		Progressive				
Party	Seats	Seats	votes	Per-	Muslim	40		000	926
Larry	contested	won	polled	centage	League	40	3	209,574	1
			poned		Bangla Jatiya Dal	16		0= 100	
1000000	280	55	5,547,969	41.39	Akhil Bharat	10		25,430	0
ongress	50		119,307	0.89	Hindu Maha-				
ana Sangh	30		119,507	0.00				10 000	
Party of					Socialist	8	0 0	19,627	0
India	36	30	938,472	7.00	Unity Centre				
	30	30	938,412	7.00			7	000 701	
o mm u nist					of India Lok Sevak	7		202,721	1
Party of						0		00.044	0
India	07	00	0.000.040	19.90	Sangha	6	4	99,844	0
(Marxist)	97	80	2,667,640	19.90	Revolutionary				
s a myu k ta					Communist				
Socialist	10	0	040 000	1.86	Party of		2	F1 101	0
Party	15	9	249,362	0.07	India	4	2	51,181	(
Swatantra	4		8,927	0.07	All India				
Praja Socia-	04		177 000	1 01	Gorkha	USI	4	71 005	0
list Party	24	5	175,890	1.31	League	4	4	71,665	U
Republican					Paschim				
Party of	0		10 700	0.00	Bangla Kri-			6,780	0
India	9	77	10,796	0.08	sak Samaj	3		0,780	U
ndependents	103	11	485,368	3.63	The Workers				
Bangla	10	00	1 000 044	0.15	Party of		2	47,391	0
Congress	49	33	1,093,644	8.17	India	2	2	47,391	U
Forward Bloc	28	21	671,664	5.01	Bhartiya				
Revolutionary					Biplabai				
Socialist	10	10	077 000	0.00	Communi s t			7,512	0
Party	17	12	375,983	2.80	Party	2		1,012	
Indian					The Minorities			372	
National Democratic					League	2		312	
The state of the s	97	F	110.070	0.00	Marxist For-		1	27,143	0
Front Proutist Bloc	97	1	118,950	0.89	ward Bloc	1	1	21,143	0
0 T 31	59		90 944	0.97		1.010	280	13,405,304	100
of India	99	1	36,344	0.27		1,019	200	10,400,004	100

#### PONDICHERRY

The mid-term election took place on March 9, 1969. No single party was able to secure absolute majority. The party position was D.M.K. 15, Congress 10, Communists 3 and Independents 2.

# LEGISLATIVE COUNCILS\*, LEGISLATIVE ASSEMBLIES\*, LOK SABHA\* AND RAIYA SABHA

#### ANDHRA PRADESH LEGISLATIVE ASSEMBLY

Speaker: B.V. Subba Reddy@; Deputy Speaker: Vasudev Krishnaji Naik; Secretary: A. Shankar Reddi.

The party position in the Andhra Pradesh Legislative Assembly is as follows: Congress 173; Congress (Organisation) 15; Communist Party 10; Communist Marxists 8; Peoples Democratic Party 4; Telangana United Front 31; Swantantra 20; Jana Congress 7; Jan Sangh 3; Samyukta Socialist Party 1; Republican Party 2; Independents 12; Nominated 1; Vacant 1; Total 288.

P. Mahendra Nath (Cong.), (Achampet); Dasri Perumallu (Cong.), (Achanta); Dasri Prakasam (Cong.), (Addanki); Kastal Ramakistoo (C.P.I.), (Adilabad); T. G. L. Timmaiah (Cong.), (Adoni); Anireddy Punna Reddy (Cong.), (Alair); T. Chendra Sekhara Reddy

(Cong.), (Alampur); G. Timma Reddy (Cong.), (Allagadda); B. V. Ramanayya (Rep.), (Allavaram); Bezwada Papireddy (P.D.P.), (Allur); D. Govinda Doss (Cong.), (Alur); K. Prabhakara Rao (P.D.P.), (Amalapuram); Som Bhopal (T.U.F.), (Amrachinta); K. Govinda Rao (C.P.I.), (Anakapalli); A. Venkatareddy (Cong.), (Anantapur), V. Ramakrishna Chowdary (Cong.), (Anaparti); C. Rajanarasimha (Cong.), (Andole); T. Ranga Reddy (Cong.), (Armoor); K. Bhim Rao (Cong.), (Asifabad); M. M. Hashim (T.U.F.), (Asifnagar); P. Ramachandra Reddy (Swa.), (Atmakur); K. V. Narasimha Raju (Cong.), (Attili); S. R. P. Yarlagadda (Cong.), (Avanigadda); B. Veera Reddy (Cong.), (Badvel); G. Rajaram (T.U.F.), (Balkonda), P. Lakshmana Rao (Cong.), (Bandar); M. Munuswamy (Cong.), (Bangaripalem); M. Sreenivasa Rao (T.U.F.),

Valid

votes

polled

Per-

centage

Seats

won

Seats

contested

Party

<sup>\*</sup>As there has been frequent defections of members from one party to the other, it is not possible to give a correct picture of their party affiliations as also the party position in the various Assemblies and Lok Sabha. At the time of going to press as the election to the Legistative Councils was incomplete, it was not possible to give the correct list of the members. 

@ Resigned on July 31, 1970.

(Banswada); K. Prabhakar Rao¹ (Cong.), (Bapatla); K. Kannaiah Dora (Cong.), (Bhadrachalam); P. V. Gajapathi Raju (Ind.), (Bheemunipatnam); B. Vijayakumar Raju (Cong.), (Bhimavaram); K. Appadu Dora (Cong.), (Bhogapuram); K. Lakshman Bapuji (T.U.F.), (Bhongir); S. A. Devshah (Cong.), (Boath); R. S. R. Ranga Row (Ind.), (Bobbili); R. Bhoom Rao (T.U.F.), (Bodhan); Y. Mohan Reddy (Cong.), (Buggaram); Komaram Ramayya (Cong.), (Burgampahad); K. Veeranna (Cong.), (Burugupudi); N. Ramulu (Cong.), (Chalakurthi); Sultan S. Owasi (Ind.), (Charminar); Tadde Rama Rao (Cong.), (Cheepurupalli); Smt. N. G. Vimala Devi (T.U.F.), (Chennur); Boddu Abraham (C.P.I.), (Cheriyal); D. Satya Narayana (J.C.), (Chevella); C. B. Krishnam Raju (Cong.), (Cheyyeru), K. Butchaiah (Swa.), (Chilakaluripeta); K. Rajamallu (T.U.F.), (Chinnur); G. Vishnumurthy (Cong.), (Chintalapudi); D. Kondala Rao (Cong.), (Chintapalli); Pragada Kotaiah¹ (Cong.), (Chirala); D. Anjaneyulu Naidu (Cong.), (Chittoor); Vechalapu Palavelli (Cong.), (Chodavaram); Mohd. Rahmatulla (Cong.), (Cuddapah); R. Mahananda (J.C.), (Darsi); M. Ramamohan Rao (Cong.), (Dendulur); G. Narayana Reddy¹ (Cong.), (Deverkonda); Pallem Venkatesan (Swa.), (*Dharmavaram*); K. V. Krishnamurthy (Cong.), (*Dhone*); M. Bheem Reddy (Cong.), (*Dommat*); N. Ramachandra Reddy (T.U.F.), (Dornakal); A. Ramireddy (Cong.), (Duggirala); N. Satyanarayana (Cong.), (Elamanchilli); M. Venkatanarayana (Cong.), (Eluru); N. A. Narsu Naidu (Cong.), (Etcherla); Gopal Reddy (Cong.), (Gadwal); V. Krishnaji Naik (Cong.), (Gagan Mahal); P. Sambasiva Raju (Cong.), (Gajapatinagaram); G. Saidiah (T.U.F.), (Gajwel); K. Venkataratnam (Cong.), (Gannavaram); T. Lakshma Reddy (Ind.), (Ghanpur); D. Panduranga Reddy (J.C.), (Giddalur); G. Krishnam Naidu (Cong.), (Gompa); R. Ramachandra Goud (Cong.), (Gooty); T. Veera Raghavulu (Cong.), (Gopalapuram); Smt. Padma Bhaskara Reddy (Cong.), (Gorantla); Y. Subramaniam (Cong.), (Gudivada); V. Ramachandra Reddy (Cong.), (Gudur); Sanakkayala Ankamma (Cong.), (Guntur I); Chebrolu Hanumaiah (Cong.), (Guntur II); K. Venkateswarlu (Cong.), (Gurajala); K. Krishnamurthy (Swa.), (Harischandrapuram); R. Narasimharamaiah (T.U.F.), (Hasanparthy); K. Anjana Reddi (Cong.), (Hindupur); Polsani Narsing Rao (T.U.F.), (Huzurabad); A. Vasudevarao (Cong.), (Huzurnagar); M. N. Lakshmi Narasiah (Cong.), (Ibrahimpatnam); Landa Karaiah Reddy (Swa.), (Ichapuram); B. Lakshmikanta Rao (T.U.F.), (Indurthy); Laxminarasimha Reddy (T.U.F.), (Jadcherla): Pantam Kamaraju (Cong.), (Jaggampeta); R. B. Rama Seshayya Sresti (Cong.), (Jaggayyapet); K. L. Narasimha Rao (T.U.F.), (Jagtial); G. Butchi Apparao (Swa.), (Jami); Kunda Ramaiah (Swa.), (Jammalamadugu); Mohd. K. Ahmed (Cong.), (Jangaon); Vithal Reddy (Cong.), (Juk-kal); Bathina Subba Rao (Cong.), (Kadiam); K. V. Vema Reddy (Cong.), (Kadiri); C. Panduranga Rao (Cong.), (Kaikalur); C. V. K. Rao (Ind.), (Kakinada); B. G. Subbaramireddy (Cong.), (Kalahasti); S. Jaipal Reddy (Cong.), (Kalvakurthi); T. C. Mareppa (Cong.), (Kalyandura); K. V. Narayana Reddy (Cong.), (Kangalawa); durg); K. V. Narayana Reddy (Cong.), (Kamalapur); N. Pulla Reddy (Cong.), (Kamalapuram); P. Madhusudhan Reddy (T.U.F.), (Kamareddy); N. Chenchurama Naidu (Cong.), (Kandukur); P. Venkata Reddy (Cong.), (Kanigiri); A. Bhaskara Rao (Cong.), (Kankipadu); J. Chokka Rao (Cong.), (Karimbagar); G. Subbanaidu (Cong.), (Kavali); Nagam Krishna Rao (T.U.F.), Khaira tabad); Rajab Ali Mohd. (C.P.I.-M.), (Khamman); K. Achuta Reddy (T.U.F.), (Kodangal); P. Rajaratna Rao (Cong.), (Kodumur); G. Sriramulu (Cong.), (Kodur); B. V. Subba Reddy\* (Koilkuntla); B. Narasimha Reddy (Cong.), (Kollapur); C. Rosayya Naidu (Cong.), (Kondapi); M. V. Subba Raju (Cong.), (Kothapeta); Meenaka

Subbanna (Cong.), (Kothuru); Vemareddy Venkureddy¹ (Cong.), (Kovur); K. Butchi Rayudu (Ind.), (Kovvur); A. Bhagavantharao (Cong.), (Kuchinapudi); D. Venkatesam (P.D.P.), (Kuppam); K. E. Madanna (Cong.), (Kurnool); R. Rajagopala Reddy (Cong.), (Lakkireddipalli); J. V. Narasinga Rao (Cong.), (Luxettipet); V. Linga Reddy (Cong.), (Macherla); M. B. Raja Rao (Cong.), (Madakasira); A. Narasinga Rao (Cong.), (Madanapalle); Duggineni Venkaiah (Cong.), (Madhira); Smt. Rama Kumari Devi (Cong.), (Madugula); Badrivishalpetti (S.S.P.), (Maharajgunj); T. Satyanarayana (C.P.I.), (Mahbubabad); Mohd. Ibrahim Ali (Cong.), (Mahbubnagar); K. Ramachandra Rao (Cong.), (Makthal); Smt. Sarojini Pulla Reddy (Cong.), (Malakpet); B. Niranjana Rao (J.C.), (Malleswaram); T. Nageswara Rao (Cong.), (Mangalagiri); P. V. Narasimha Rao (Cong.), (Manthani); C. Vengaiah (Ind.), (Markapur); M. A. Ramachandra Reddy (Cong.), (Medak); Smt. Sumitra Devi (T.U.F.), (Medchal); C. Satyanarayana Rao (Cong.), (Metpalli); T. C. Krishna Reddy (T.U.F.), (Miryalguda); Gaddanna (Cong.), (Mudhole); Kaza Ramanatham (J.C.), (Mudinepalli); Santosh (T.U.F.), (Mulug); P. Goverdhan Reddy (Cong.), (Mungode); T. Anjiah (T.U.F.), (Musheerabad); Gadapalli Ramulu (Cong.), (Mydaram); S. P. Nagiroddy (Cong.) (Mydukur); C. Venkata Rao (Cong.), (Mylavaram); Gaddam Mahalakshmi (Cong.), (Nagaram); K. Gopal Naidu (Cong.), (Nagari); T. Papa Rao (Cong.), (Nagarikatakam); V. N. Goud (Cong.), (Nagarkurnool); S. P. Rudra Raju (Ind.), (Nagur); N. Raghava Reddy (C.P.I.-M.), (Nakrekal); C. Srinivasa Rao (T.U.F.), (Nalgonda); K. Ramachandra Reddy¹ (Cong.), (Nallamada); A. Suryanarayana Rao (Cong.), (Nandigama); C. Rambhupal Reddy¹ (Cong.), (Nandikotkur); S. B. Nabi Saheb (Cong.), (Nandyat); K. Sudarshen Reddy (Cong.), (Narasampet); S. Jagannadham (Swa.), (Narasannapeta); R. Satyanarayana Raju (C.P.I.-M.), (Narasapur); K. Brahmananda Reddy (Cong.), (Narasaraopet); Shetker Shiva Rao (T.U.F.), (Narayankhed); C. Jagannath Rao (T.U.F.), (Narsapur); S. Suryanarayana Raju (Cong.), (Narsipainam); A. Madhava Rao (J.S.), (Nellore); Gotte Bhoopathi (Cong.), (Nerella); K. Someswara Rao (Cong.), (Nidumolu); P. Narasa Reddy (Cong.), (Nirmal); K. V. Gangadhar (Cong.), (Nizumabad); Butti Rajaram (Cong.), (Nustulapur); M. R. Appa Rao (Cong.), (Nuzvid); C. Ramachandra Reddy (Cong.), (Ongole); T. Chitti Naidu (Cong.), (Paderu); P. Seshavataram (C.P.I.-M.), (Palacole); K. Santhaiah (Cong.), (Palair); Jammana Joji (Swa.), (Palakonda); T. C. Rajan (Swa.), (Palamaner); P. Pichaiah (Cong.), (Palwancha); S. Venkatareddi (Cong.), (Pamarru); Venkata Reddy (Cong.), (Panyam); G. Venkata Reddy (Cong.), (Parchur); Rama Reddy (Cong.), (Pargi); C. Janga Reddy (J.S.), (Parkal); S. R. A. S. Appalanaidu (Cong.), (Paravada); Venkata Rami Naidu (Cong.), (Parvatipuram); Pothula Gunnayya (Cong.), (Patapatnam); K. Easwara Reddy (C.P.I.-M.), (Pattikonda); G. Suryanarayana¹ (Cong.), (Payakaraopeta); Narayana Applanaidu Vanagapandu (Cong.), (Pedamanapuram); G. Ramaswamy Reddy (Cong.), (Peddakurapadu); J. Malla Reddy (T.U.F.), (Peddapalli); V. Narayana Murthu (C.P.I.), (Peddapuram); J. Lakshmayya (Cong.), (Penugonda); Narayana Reddyl (Cong.), (Penukonda); G. V. C. Reddy (Cong.), (Pileru); Y. Suryanarayana Murthy (Cong.), (Pithapuram); K. Narayanaswami (Cong.), (Podili); K. Rami Reddy (Cong.), (Polavaram); C. Satyanarayana (Swa.), (Ponduru); P. A. Prasadarao (Cong.), (Ponnur); M. Chinna Nagiah (Swa.), (Prathipadu); M. Veeraraghavarao (J.C.), (Pratipadu); (Prathipadu); M. Veeraraghavarao (J.C.), (Pratipadu); B. Ramasubba Reddyl (Cong.), (Proddatur); P. Basi Reddy (Cong.), (Pulivendla); V. Ramaswamy Reddy (Cong.), (Punganur); Gandhamaneni Sivayya (C.P.I.), (Puttur); C. P. Chowdary (C.P.I.), (Rajahmundry); B.

<sup>\*</sup> Speaker has no party affiliation.

<sup>1</sup> Congress Organisation.

Ratnasabhapathy (Swa.), (Rajampeta); N. Veerraju (Cong.), (Ramachandrapuram); V. Kasi Ram (Cong.), (Ramannapet); Smt. R. Ratnamma (T.U.F.), (Ramayanpet); A. Sanjiva Reddy (Cong.), (Rapur); M. Krishna Reddy (Cong.), (Rayachoti); Trippaswamy (Ind.), (Rayadurg); N. Ganeswara Rao (Cong.), (Razole); Y. Chennaiah (Cong.), (Repale); Rajayya Boina (Cong.), (Salur); C. Venkataratnam (Cong.), (Sampara); Narsimha Reddy (Cong.), (Sangareddy); V. C. Kesavarao (Cong.), (Santhanuthalapad); S. Vemayya (C.P.I.), (Sarvepalli); V. Gopalakrishnayya (Ind.), (Sattenapalli); K. Munuswamy (Swa.), (Satyavedu); K. S. Narayana (Cong.), (Secunderabad); Smt. V. Mankamma (S.C.) (Cong.), (Secunderabad Cantt. (R)); Dr. K. Naganna (Cong.), (Shadnagar); V. B. Raju (T.U.F.), (Siddipet); K. C. Sree Rangaiah (Cong.), (Singanamala); C. Rajeswar Rao (C.P.I.), (Sircilla); G. Sanjiva Reddy (Cong.), (Sirpur); Ahmed Hussain (Ind.), (Sitarambagh); G. Latchanna (Swa.), (Sompeta); T. Satyanarayana (Cong.), (Srikakulam); K. Appala Naidu (Cong.), (Srungavarampukota); P. Venkatasubbaiah (Cong.), (Sullurpet); Uppala Malsoor (C.P.I.-M.), (Suryapet); C. Subbarayudu (Cong.), (Tadpatri); A. Krishna Rao (Cong.), (Tadepalligudem); G. Venkata Rattaiah (Cong.), (Tadikonda); Ealy Vadapalli (Cong.), (Tallarevu); Manik Rao (T.U.F.), (Tandur); G. Satyanarayana Murthy (Cong.), (Tanuku); N. Ramulu (Swa.), (Tekkali); Smt. Doddapa-neni Indira¹ (Cong.), (Tenali); Smt. T. N. Anasuyamma

(Cong.), (Thamballapalle); B. N. Reddy (C.P.I.-M). (Thungaturthy); A. Easwarareddy (Swa.), (Tirupathi); V. Kurmayya (Cong.), (*Tiruvur*); V. Venkatakrishnan Raju (Cong.), (*Tuni*); D. Narasimhan (Swa.), (*Udayagiri*); Vacant (Undi); Ch. S. P. M. Raju (Cong.), (Ungutur); G. China Venkanna (Cong.), (Uravakonda); P. Thimma Reddy (Cong.), (Vayalpad); J. Vengala Rao (Cong.), (Vemsoor); Y. Venkata Rao (Swa.), (Vemur); O. Venkatasubbaiah (Cong.), (Venkatagiri); V. Muniswamappa¹ (Cong.), (Vepanjeri); A. Ramaswamy (Cong.), (Vicarabad); Dr. T. V. S. Chalapathi Rao¹ (Cong.), (Vijayawada-East); Appalaswamy Marupilla (Cong.). (Vijayawada-West); Smt. B. Jayaprada (Cong.), (Vinukonda); A. V. Bhanoji Rao (Cong.), (Visakhapatnam I); P. Sanyasirao (C.P.I.-M.), (Visakhapatnam II); V. Rama Rao (J.S.), (Vizianagaram); P. Mudile Babu (Swa.), (Vunukuru); K. Venkateswara Rao (J.C.), (Vuyyuru); Smt. J. Kumudini Devi (T.U.F.), (Wanaparthy); T. S. Murthy (P.D.P.,) (Warangal); T. Purushothama Rao (T.U.F.), (Wardhanapel; Khaja Nizamuddin (Ind.). (Yakutpura); G. Satyanarayana Rao¹ (Cong.), (Yellandu); Smt. J. Easwari Bai (Rep.), (Yellareddy); C. Mallikharjuna (Cong.), (Yellavaram); P. O. Satyanarayana Raju (Cong.), (Yemmiganur); P. Subbayya (C.P.I.), (Yerragondipalem); M. Baga Reddy (T.U.F.), (Zahirabad); Mrs. M. Godfrey (Nominated Anglo-Indian).

#### ANDHRA PRADESH LEGISLATIVE COUNCIL

Strength :- 90.

An estimate of party position is as follows:—Congress 52; Congress (O) 8; Telengana United Front 7; Bharatiya Jan Sangh 4; Communist Party of India (Marxist) 2; Communist Party of India 2; Swatantra 3; Nationalist Teachers' Front 3; Independent 5; National Democrats 3; Vacant 1.

Chairman: Pidathala Ranga Reddi; Dy. Chairman: Erram Satyanarayana; Secretary: G. V. Chowdary; Asst. Secretary: Sadasiva Reddy.

Local Authorities' Constituency (31): Mukkassir Shah (Cong.), (Adilabad); G. Nagabhushanam (Cong.), (Anantapur); Smt. Katta Subbamma (Cong.-O), (Chittoor); P. Narsimha Reddy (Cong.), (Chittoor); A. Chengal Reddy (Cong.), (Cuddapah); R. Ramalinga Raju (Cong.), (Godavari-East); V. Satyanarayana Murthy (Cong.), (Godavari-East); Subba Rao Chowdary Chitturi (Cong.), (Godavari-West); T. Veerabhadra Rao (Cong.), (Godavari-West); B. Adi Narayana Rao (Cong.), (Guntur); Vacant, (Guntur); Venkat Ram Reddy (T.U.F.), (Hyderabad); K. Prabhakar Reddy (Cong.-R), (Hyderabad); M. Chenna Kesava Reddy (Cong.), (Karimnagar); T. Venkatappayya (Ind.), (Khammam); Smt. V. Kamala Kumari (Cong.), (Krishna); G. Krishnamurty (Cong.), (Krishna); P. Ranga Reddy (Cong.), (Kurnool); M. Subba Reddy (Cong.), (Kurnool); Ramdevi Reddy (Cong.), (Mahboobnagar); C. Narsi Reddi (T.U.F.), (Mahboobnagar); S. Lakshma Reddy (T.U.F.), (Medak); Gunda Ram Reddy (Ind.), (Nalgonda); P. Veera Raghava Reddy (Cong.-O), (Nellore); S. Venkata Krishna Reddy (Cong.), (Nellore); P. Limba Reddy (Cong.), (Nizamabad); V. Krishnamurti Naidu (Cong.), (Srikakulam); P. Venkatappala Naidu (Cong.), (Srikakulam); N. V. Ganga Raju (Cong.), (Visakhapatnam); I. Satyanarayana (Cong.), (Visakhapatnam); Smt. K. Kanakaratnamma (T.U.F.), (Warangal).

Elected by the Legislative Assembly (31): Guntur Bapanayya (C.P.I.-M.); G. Brahmayya (Cong.-O); S. Siddha Reddy (Cong.); M. Shamsheer Baig (Cong.); V. Purushothama Reddy (Cong.); Joseph Appikatla (Cong.); Kondiah Chowdary Divi (Swa.); Y. V. Krishna Rao (C.P.I.); K. Vijaya Bhaskara Reddy (Cong.); R. Narapa Reddy (Cong.); J. Raghotham Reddy (Cong.); Abdul Rahman Khan (Cong.); I. Lingayya (T.U.F.); Nathaniel Milari Williams (Cong.-O); K. V. Pratap Reddy (Cong.); Meda Subbaiah (Cong.-O); Smt. Alluri Annapurnamma (Cong.); Smt. Rajamani Devi (Cong.); P. Venkataswami Reddy (Cong.); Pyndah Venkatanarayana (Swa.); K. Rosaih (Swa.); M. R. Sham Rao (T.U.F.); T. Ramaswami (Cong.); Kasu Vengal Reddy (Cong.); G. V. Sudhakar Rao (T.U.F.); V. V. R. K. Yachendra (Cong.); Akkala Kotaiah (Cong.); G. Appalaswamy (Cong.); A. Chitambara Reddy (Cong.-O); N. Durgamallikarjuna Prasada Rao (C.P.I.-M.); Smt. P. Vani Rama Rao (Cong.).

Graduates' Constituency (8): S. B. P. Pattabhirama Rao (Cong.), (Circars-Central); Ganapathi Raju (J.S.), (Circars-North); J. Yagna Narayana (J.S.), (Carcars-South); V. Rama Rao (J.S.), (Hyderabad); T. Panchajanyam (Cong.), (Hyderabad); Y. C. Ranga Reddy (J.S.), (Rayalaseema-East); B. V. Subbaraju (Cong.), (Rayalaseema-West); Katta Ramachandra Reddy (Ind.), (Telangana).

Teachers' Constituency (8): D. Satyasubramanyam (N.T.F.), (Circars-Central); S. T. P. V. Kurmacharyulu (N.D..), (Circars-North); M. Giridhara Rao (Ind.), (Guntur); K. Koteswara Rao (N.T.F.) (Krishna); S. Ramakrishnaiah (Ind.), (Rayalaseema-East); V. Vijayarama Raju (C.P.I.), (Rayalaseema-West); J. Mutha Reddy (N.T.F.), (Telangana-East); V. P. Raghavachari (N.D.), (Telangana-West).

Nominated by the Governor (12): A. Venkatasubbarao Alur alias Chakrapani (Ind.); M. A. Rasheed (Cong.); Smt. Zubeda Begum (Cong.); Smt. A. Shyamala Devi (Cong.); K. Koti Reddy (Cong.); Gurram Joshus (Cong.); S. Sambhu Prasad (Ind.); Nivarthi Venakasubbiah (Cong.); Ch. Bavayya Chowdary (Cong.); Smt. Roda Mistry (Cong.); P. Suryachandra Rao (Cong.) Sheik Adam Saheb (Cong.).

<sup>1</sup> Congress (Organisation),

# ASSAM LEGISLATIVE ASSEMBLY

Seats: 126 (S.C. 8; S.T 24); Electorate: 54,39,305.

Speaker: Mabi Kanta Das; Dy. Speaker: Ataur Rahman.

An estimate of party position is given below: Congress 71; Praja Socialist Party 5; Communist Party 7; Swatantra 2; R.C.P.I. 1; Samyukta Socialist Party 3; Independents and others 27; Vacant 10.

K. N. Baonikya (S.C.) (Ind.), (Abhayapuri (R)); John F. Hanliana (S.T.) (Ind.), (Aijal-East (R))†; A. Thanglura (S.T.), (Cong.), (Aijal-West (R))†; Pushpadhar Chaliha (Cong.), (Amquri); Maulana A. J. Chowdhury (Cong.), (Badarpur); J. U. Ahmed (Ind.), (Baghbar); Vacant (Baghbara (R)); D. R. Rongpi (S.T.), (Cong.), (Bathaga (R)); D. Biranda (R)); P. Baranda (R); P. Biranda (R); P. (Baithalangso (R)); Biswadev Sarma (Cong.), (Balipara); Surendranath Das (S.T.) (Cong.), (Barama (R)); Gaurisankar Bhattacharyya (Ind.), (Barbhag); Kehoram Hazarika (C.P.I.), (Barhampur); Dr. Surendranath Das (P.S.P.), (Barpeta); Dharanidhar Choudhury (Cong.), (Bhabanipur); Premadhor Bora (Ind.). (Bihpuria); Golak (Chandra Patgiri (Cong.), (Bijni); Giasuddin Ahmed (Ind.), (Bilasipara); K. P. Tripathi (Cong.). (Biswanath); Upendranath Sanatan (Cong.), (Bogdunq); Sasai Terang (S.T.) (Cong.), (Bokajan (R)); Lakheswar Das (S.C.) (Cong.), (Bokakhat (R)); M. N. Hazarika (S.C.) (Cong.), (Bokani (R))†; P. K. Choudhury (Cong.), (Boko)†; Mathura Mohan Sinha (Cong.), (Bongaigaon); A. H. Mazumdar (Cong.), (Borkhola); D. C. Barua (Ind.), (Charaibahi); A. N. Akran Hussain (Ind.), (Chhaygaon); A. R. Chaudhury (Cong.), (Chenga); Vacant (Cherrapunjee (R))†; Vacant (Dainadubi (R)); S. C. Baruah (Cong.), (Dalgaon); Narendranath Sarma (Cong.), (Dergaon); Nameswar Pegu (S.T.) (C.P.I), (Dhakuakhana (R)); Smt. Pushpa Lata Das (Cong.), (Dhekiajuli); Romesh Mohan Kouli (Swa.), (Dhemaji); M. Shamsul Huda (R.C.P.I.), (Dhing); S. B. Baidya (S.C.) (Cong.), (Dholai (R)); Syed Ahmed Ali (Cong.), (Dhubri)†; R. C. Barooah (Cong.), (Dibrugarh)‡; Jadu Nath Bhuyan (Cong.), (Digboi); Malia Tanti (Cong.), (Doom-Dooma); Sarat Chandra Rabha (S.T.), (C.P.I.), (Dudnai (R)); M. M. Choudhury (Cong.), (Gauhati-East); Govinda Kalita (C.P.I.), (Gauhati-West); Md. Azad Ali (P.S.P.), (Gauripur); Benoy Krishna Ghose (Ind.), (Goalpara-East); S. A. Jotder (P.S.P.), (Goalpara-West); Bishnulal Upadhyaya (Cong.), (Gohpur); Soneswar Bora (S.S.P.), In Upadhyaya (Cong.), (Gohpur); Solieswar Bora (E.S.T.), (Golaghat); K. C. Roy Pradhani (Ind.), (Golaghagna); Mathius Tudu (Cong.), (Gossaigaon); J. B. Hagjer (S.T.), (Cong.), (Haflong (R))†; A. M. Mazumdar (Cong.), (Hailakandi)†; Bisnuram Medhi (Cong.), (Hajo); Jonab Rahimuddin Ahmed (Swa.), (Hojai); Chatrasing Teron (S.T.) (Cong.), (Howraghat (R))†; Sailen Medhi (Ind.), (Jalukbari);

Lakshmi Prasad Goswami (Cong.), (Jamunamukh) ; Ataur Rahman (Cong.), (Jania)†; Jogen Saikia (Cong.), (Jorhat); Vacant (Jowai (R))+; Bhadra Kanta Gogoi (Ind.), (Joypur); Dandiram Dutta (Cong.), Kalaigaon); A. C. Goswami (S.S.P.), (Kaliabor); L. D. Chaudhury (P.S.P.), (Kamalpur); Rothindra Nath Sen (Ind.), (Karimganj-North); Prafulla Choudhury (S.C.), (Cong.), (Karimganj-South (R)); A. K. Nurul Haque (Cong.), (Katigora); Tazammul Ali Laskar (Ind.), (Katlicherra); R. Basumatari (S.T.) (Cong.), Kokrajhar-West (R))†; Rani Manjula Devi (Cong.), (Kokrajhar-East)†; Md. Abul Kasem (Cong.), (Laharighat); Smt. Lily Sen Gupta (Cong.), (Lahowal); Mera Chouba Singha (Cong.), (Lakhipur); S. Ranjan Sarkar (Cong.), (Lawhipur); Manjan Sarkar (Cong.), (Lawhipur); Ma (Lumding); Lalchunga Chinzeb (S.T.) (Ind.), (Lungleh (R))†; Ratneswar Konger (Cong.), (Mahmara); Mohidhar Pegu (S.T.) (Ind.), (Majuli (R)); Md. Matlebuddin (Ind.), (Mangaldoi); Zahirul Islam (Ind.), (Mankachar); Gajen Tanti (Cong.), (Mariani); Mohi Kanta Das (Cong.), (Missamari); Smt. Padma Kumari Gohain (Cong.), (Moran) ; Pitsing Konwar (S.T.) (Ind.), (Morigaon (R)); P. N. Choudhury (Cong.), (Nalbari-East); Dr. Bhumidhar Barman (Cong.), (Nalbari-West); Dr. Bhupen Hazarika (S.C.) (Ind.), (Naoboicha (R)); Karuna Kanta Gogoi (Cong.), (Nazira); Vacant (Nongpoh R)); Vacant (Nongstoin (R)); Govinda Chandra Bora (Cong.), (North Lokhimpur); Phani Bora (C.P.I.), (Nowgong); Abala Kanta Goswami (Ind.), (Palasbari); Hiralal Patwary (Ind.), (Panery); Bhubaneswar Barman (P.S.P.), (Patacharkuchi); Mobilal Kanoo (Ind.), (Patharkandi); Vacant (Phulbari (R))†; Sarat Chandra Goswami (Cong.), (Raha); Nakul Chandra Das (S.C.), (Cong.), (Rangamati (R)); K. M. Sarna (C.P.I.), (Rangiya); Bishwanath Upadhyaya (Cong.), (Ratabari); M. A. Musawwir Choudhury (Ind.), (Rupohihat); D. N. Hazarika (Cong.), (Saikhowa)†; D. K. Barooah (Cong.), (Samuguri); Matilal Nayak (S.C.) (Ind.), (Sarukhetri (R))†; (Schangari); Machai Nayak (S.C.) (Ind.), (Sarukelri (R)); C. G. Karmakar (Cong.), (Sarupathar); Vacant (Shillong); P. C. Gogoi (C.P.I.), (Sibsagar); Uttam Chandra Brahma (S.T.) (Cong.), (Sidli (R)); Satindra Mohan Dev (Cong.), (Silchar); M. H. Choudhury (Cong.), (Sonai); Bimala Prasad Chaliha (Cong.), (Sonari); Mrs. Pranita Talukdar (Cong.), (Sorphan); Bagil Ragit (Cong.), (South Salmara). (Cong.), (Sorbhog); Bazlul Basit (Cong.), (South Salmara); N. C. Bhuyan (Cong.), (Sootea); Maneswar Boro (S.T.) (Ind.), (Tamulpur (R)); Manik Chandra Das (Cong.), (Tengakhat); Tilok Gogoi (Cong.), (Teok); B. C. Bhagawati (Cong.), (Tezpur); Durgeswar Saikia (Cong.), (Thowra); (Cong.), (Tezpur); Burgeswar Sarka (Cong.), (Thours); Bhadreswar Gogoi (S.S.P.), (Tingkhong); Paramananda Gogoi (Cong.), (Tinsukia); Debeswar Sarmah (Cong.), (Titabar); Vacant (Tura (R))†; Bahadur Basumatary (S.T.) (Cong.), (Udalguri (R)); Jagannath Sinhs (Cong.), (Udharband).

# BIHAR LEGISLATIVE ASSEMBLY

(See page 367)

# BIHAR LEGISLATIVE COUNCIL

Seats: 96.

Chairman: Vacant. Deputy Chairman: Theodore

Bodra. Graduates (8)

Kaheswari Singh Mahesh (Ind.) Bhagalpur-cum-Saharsa-cum-Purnea); Lokesh Nath Jha (Cong.), (Darbhanga); Ramashraya Prasad Singh (U.O.), (Gaya-cum-Shahabad); Harendra Prasad Jha (Cong.), (Monghyr-cum-Santal Perganas-cum-Hazaribag-cum-Dhanbad); Jagnnath Mishra, (Muzaffarpur-cum-Saran-cum-Champaram); Ram Ishwar Singh (Cong.), (Patna); Purnendu Narain Singh

(U.O.), (Patna); Anil Kumar Sen (U.O.), (Randhi-cum-Singhbhum-cum-Palamau).

Teachers (8)

Vindhyeshwar Mishra (Ind.), (Bhagalpur-cum-Saharsa-cum-Purnea), Vacant, (Gaya-cum-Sahabad); Hargauri Tiwari (Ind.), (Monghyr); Padmadev Narayan Sharma (Cong.), (Patna); Mahendra Prasad (Ind.), (Ranchi-cum-Singhbhum-cum-Palamau); Shivachandra Jha (Ind.), (Santal Parganas-cum-Hazaribagh-cum-Dhanbad); Brinda Prasad Rai "Virendra" (Ind.), (Tirhut Division); Kailash Singh (Ind.), (Tirhut Division).

Local Authorities (34)

Narayan Prasad Singh (Cong.-R.), (Bhagalpur); Shiv Sankar Kanodia (Ind.), (Champaram); Smt. Prabhavati Gupta (Cong.-R.), (Champaram); Rajkumar Mahasett (Ind.), (Darbhanga); Smt. Kishore Devi (Cong.-R), (Darbhanga); Musay Nayak (Ind.), (Darbhanga); Brajmohan Agarwal (Cong.-R.), (Dhanbad); Tapeswar Dev (Cong.-R.) (Hazaribagh); Rameswar Prasad (Cong.-O), (Hazaribagh); Krishna Mohan Pyare Singh (Cong.-R), (Monghyr); Radhakrishna Prasad Singh (Cong.-R), (Monghyr); Raghunath Das (L.T.C.), (Muzaffarpur); Niteshwar Prasad (Cong.-O), (Muzaffarpur); Ram Lakhan Pandey (Cong.-R), (Palamau); Devsaran Singh (Cong.-R), (Patnacum-Gaya); Kumar Jha (Cong.-R), (Patna-cum-Gaya); Sayed Nazir Hyder (Cong.-R), (Patna-cum-Gaya); Beer Narayan Chand (Cong.-O), (Purnea); Ram Ratan Ram (Cong.-R), (Ranchi); Amant Ali (Cong.-R), (Ranchi); Narulla (Cong.-R), (Saharsha); Prithi Chand Kishku (Cong.-O), (Santal Parganas); Tara Chand Daruka (Ind.), (Santal Parganas); Ramanand Singh (Cong.-O), (Saran); Kashinath Gupta (Cong.-R), (Saran); Nageshwar Singh (Cong.-O), (Saran); Indra Kumar (S.S.P.), (Shahabad); Vishnu Shankar (Cong.-R), (Shahabad); Subodh Kumar Sen (U.O.), (Singhbhum); R. N. Rao (Ind.), (Singhbhum).

Legislative Assembly (36)

Abdul Ahamed Muhamed Noor (Cong.-R); Abdul Gafoor (L.T.C.); Abdul Sami Nadvi (Cong.-O); Brajmohan

Singh (Cong.-R); Bhola Prasad Singh (S.S.P.); Chand rika Ram (Cong.-R); Gajendra Prasad Singh (Cong.-O); Indradeep Sinha (C.P.I.); Jaghannath Sarkar (C.P.I.); Jageshwar Mandal (Cong.); Jageshwar Prasad Khalish (Cong.-O); Jagannath Singh (Cong.-O); Jamuna Prasad Sinha (Cong.); Justin Richard (Jharkhand); Kishto Kalinath Sahdev (Cong.-R); Maheshwari Prasad Sinha (Cong.-R); Mungerilal (Cong.-R); Pashupati Singh (Cong.-O); Ramzan Ali (S.S.P.); Ram Govind Singh (Cong.-R); Rajandhari Singh (Cong.-R); Smt. Rajishwari Saroj Das (Cong.-R); Ramraj Jajware (Cong.-R); Smt. Rampyari Devi (Cong.-R); Ram Kripal Sinha (Cong.-R); Ram Khelwan Singh (Cong.-O); Ram Praksh Rai (Cong.-R); Ram Sunder Das (S.S.P.); Subhodh Narain Yadav (Cong.-R); Sankar Dayal Sinha (Ind.); Sudhama Mishra (Cong.-R); Theodore Bodra (Cong.-R); Upendra Nath Jha (Cong.-R); Yamuna Prasad Sinha (Cong.-R).

#### Nominated (12)

Smt. Ahmedi Sattar (Cong.-R); B. P. Sinha (Cong.-R); Chintamani Saran Nath Sahadev (Cong.-R); Fazlur Rahman (Cong.-R); Gauri Shankar Dalmia (Cong.-R); Harman Lakra (Ind); Jaydev Prasad (Ind); Lady Anis Imam (Ind.); Mathura Prasad Singh (Cong. (O); Smt. Parwati Devi (Cong.R); Shri Kant Thakor Vidyalankari (Ind); Bipin Bihari Varma (Cong.-O).

#### GOA LEGISLATIVE ASSEMBLY

Seats: 30, Electorate: 4,18,394; Nominated 2.

Speaker: Gopal Apa Kamat.

Dy. Speaker: Monju B. Naik Gaonkar.

Secretary : R. L. Segel.

An estimate of party position is given below: Maharashtrawadi Gomantak 17; United Goans 12; Independent 2.

O. A. J. S. Lobo (U.G.), (Aldona); Mrs. Elu Jose Miranda (U.G.), (Benaulim); D. K. Chopdenkar (M.G.), (Bicholim); Valente Sequeira (U.G.), (Calangute); M. B. Naik Gaonkar (M.G.), (Canacona); Dr. L. P. Barbosa (U.G.), (Cortalim); R. S. Fernandes (U.G.), (Cuncolim); Abdul Razak (U.G.), (Curchorem); R. J. Barneto (U.G.), (Curtorim); M. M. Bhathela (Ind.), (Daman); Naraina S. Fugro (Ind.), (Diu);

Anthony J. D'Souza (M.G.), (Madrem); G. G. Mayekar (M.G.), (Mapusa); Dayanand B. Bandodkar (M.G.), (Marcaim); Anant N. Naik (U.G.), (Margao); Gajanan Patil (M.G.), (Mormugoa); Leo Mauricio Velho (U.G.), (Navelim); A. K. S. Usgaonker (M.G.), (Pale); Yeshwant S. Desai (U.G.), (Panaji); Babal L. Kinlekar (M.G.), (Pernem); Mrs. S. G. Kakodkar (M.G.), (Ponda); Shaba K. Desai (M.G.), (Quepem); Vasudev Datta Morajkar (M.G.), (Sanguem); T. F. Pereira (U.G.), (Santo Andre); Pratap Srinivas Bakal (M.G.), (St. Estevam); Dr. Jack de Sequeira (U.G.), (Santa Cruz); P. P. Achrekar (M.G.), (Siolim); K. B. Naik (M.G.), (Siroda); Jaisinghrao Rane (M.G.), (Tivim); Jiwa Bhagdo Gaonkar (M.G.), (Nominated); Shantaram M. Kamble (M.G.), (Nominated).

#### GUJARAT LEGISLATIVE ASSEMBLY

Constituencies 168; S.C. 11; S.T. 21.

Speaker: R. Leuva; Dy. Speaker: Vasantlal V. Mehta.

An estimate of party position is given below; Congress; 101; Swatantra: 55; P.S.P.: 3; S.S.P.: 1; Janta Parishad: 1; Jan Sangh: 1; Independent: 6; Vacant 1.

Premji Bhavanji Thacker (Cong.), (Abadasa); Shambhubhai Devji Patel (Cong.), (Alia); Narsinhdas Gordhandas Gondhiya (Cong.), (Amreli); Shankerbhai Desaibhai Vaghela (Cong.), (Anand); Smt. Nirmalaben Hassanand Gjawani (Cong.), (Anjar); Amrutlal Ambalal Patel (Cong.), (Ankleshwar); Manharlal Tuljashanker Shukla (Cong.) (Asarea); Jinabai Devrajbhai Kansagra (Cong.), (Babra); Natwarsinh Kesarisinhji Solanki (Swa.), (Balasinor); Ratanbhai Govindbhai Gavit (S.T.) (P.S.P.), (Bansda); Bhulabhai Vithalbhai Patel (Cong.), (Bardoli); Chandrakant Muljibhai Parikh (Swa.), (Baroda City); Khodubha Abhesinh Vaghela (Swa.), (Baroda (Rural)); Levjibhai Sadabhai Parmar (S.C.) (Swa.), (Bavla); Lalsinhji Kishorsinhji Rahewar (Swa.), (Bayad); Madhavsinh Fulsinh Solanki (Cong.), (Bhadran); Pratapray Tarachand Shah

(Cong.), (Bhavnagar); Ganpatlal J. Trivedi (Swa.), (Bhiloda); Dr. Mahipatray Mul Shankar Mehta (Cong.), (Bhuj); Ramanbhai Dhanabhai Patel (Cong.), (Borada); Pravinchandrasinghji Gambirsinhji (Cong.), (Botad); Chandrashanker Manishanker Bhatt (Cong.), (Broach); Keshavbhai Ratanji Patel (Cong.), (Bulsar); Madhavlai Bhailaibhai Shah (Cong.) (Cambay); Bhogilal Kanjibhai Patel (Swa.), (Chanasma); Bhaijibhai Garbadbhai Tadvi (S.T.), (Cong.), (Chhota Udepur); Smt. Arunaben Gambhirbhai Patel (S.T.), (Cong.), (Chichali); Urmilaben Premshanker Bhatt (Cong.), (Chorasi); Dharmendrasinghi Bahadursinghi Rana (Swa.), (Chotila); Narharilal Ishwarlal Purohit (Swa.), (Dabhoi); Fuljibhai Dosjibhai Patel (Cong.), (Danta); Trikamlal Jamnadas Patel (Cong.), (Dariapur-Kajipur); Chunilal Popatlal Chudgar (Swa.), (Dasada); Vadilal Lallubhai Mehta (Ind.), (Daskroi); Chunilal Swarupchand Shah (Cong.), (Deesaa); Manharbhai Chandulal Shah (Swa.), (Dehgam); Gumansinhj Viramshinhji Vaghela (Cong.), (Deedar); Jaideepsinhji (Swa.), (Devgadh-Baria); Vinubhai Bhagvandai

Kotdawala (Swa.), (Dhandhuka); Balashanker Jeyshanker Joshi (Swa.), (Dhanera); Bahadurbhai Kuthabhai Patel (S.T.) (Cong.), (Dharampur); Raghavji Thobhanbhai Leuva (S.C.) (Cong.), (Dhari-Kodinan); Kantilal Fulchandbhai Ghiya (Cong.), (Dholka); Mohanlal Gokal-bhai Patel (Cong.), (Dhoraji); H. M. Patel (Swa.), (Dhrangadhra); Javsinh Mansinh Solanki (S.T.) (Cong.), (Dohad); Kesubhai Gokaldas Raichura (Cong.), (Dwarka); Ratilal Khushaldas Patel (Ind.), (Ellisbridge); Ranjitsinhji Bhavsinhji Gohil (Swa.), (Gadhada); Thakorbhai Manibhai Desai (Cong.), (Gandevi); Shamalbhai Lallubhai Patel (Swa.), (Gandhinagar); Dhirajlal Bakordas Mehta (Cong.), (Ghogha); Gaurishankar Dhaneshwar Pathak (Swa.) (Godhra); Balubhai Harjibhai Patel (Cong.), (Gondal); Amarsinh Deepsinh Parmar (Cong.), (Halol); Daljitsinhji Hamatsinhji (Swa.), (Himatnagar); Manabhai Revabhai Bhambhai (S.C.) (Swa.), (Idar); Gonsaibhai Chhibabhai Patel (Cong.), (Jalalpore); Abdulrahim Tajuji Kundiwala (Swa.), (Jamalpur); Vinodchandra Chunilal Shah (Cong.), (Jambusar); Navinbhai Premjibhai Patel (Swa.), (Jam-Jodhpur); Liladhar Pranjian Patel (Swa.), (Jamnagar); Shivrajkumar Khachar (Swa.), (Jasdan); Naranbhai Kalidas Patel (Cong.), (Jetpur); Manekbhai Somabhai Tadvi (S.T.) (Swa.), (Jetpur); Zinabhai Ramsangbhai Vasava (S.T.) (Cong.), (Jhaghadia); Smt. Hiraben Lalchandbhai Ninama (S.T.) (Cong.), (Jahalod); Chandrasinghji Dipsinhji Jadeja (Swa.), (Jodiya); Vacant (Jotana); Prabhulal Kanji Dave (Cong.), (Junagadh); Palabhai Narandas Parmar (S.C.) (Swa.), (Kadi); Bhanji Bhimji Patel (Cong.), (Kalawad); Arjunsinh Bharatsinh Thakor (Cong.), (Kalol); Vijayshinh Bharatsinh Chauhan (Swa.), (Kalol); Manubhai Harilal Palkhiwala (S.S.P.), (Kalupur), Jesinghbhai Govindbhai Parmar (S.C.) (Cong.), (Kankaria); Jayantilal Virchand Shah (Cong.), (Kankrej); Kashturbhai Nagindas Doshi (Swa.), (Kapadwanj); Nagjibhai Govindbhai Arya (S.C) (Cong.), (Karjan); Abhesinh (Kodarbhai Parmar (Swa.), (Kathlal); Dharmasinhbhai Dahyabhai Patel (Swa.), (Keshod); Marthandaray Gangashanker Shastri (P.S.P.), (Khadia); Dwarkadas Vithaldas Barai (Swa.), (Khambhalia); Jethabhai Bhurabhai Rathod (S.T.) (Swa.), (Khedbrahma); Dr. Vasantlal Vrijlal Parikh (Ind.), (Kheralu); Bhagwanbhai Kanjibhai Patel (Swa.), (Kundla); Bechar Bhagvanji Gajera (Swa.), (Kutiyana); Smt. Sumitraben Hariprasad Bhatt (Cong.), (Lathi); Haribhai Ratanbhai Doria (S.C.) (Swa.), (Limbdi); Titabhai Meghjibhai Hathila (S.T.) (Cong.), (*Limdi*); Virsinh Bhulabhai Pasaya (S.T.) (Swa.), (*Limkheda*); Kamlashanker Bhuleshwar Dave (Swa.) (*Lunavada*); Amarsinh Bhupatsinh Vaghela (Swa.), (Mahudah); Chhotubhai Nathubhai Rathod (S.T.) (Cong.), (Mahuva); Chhabildas Pragjibha Mehta (Cong.), (Mahuva); Kanjibhai Kacharabhai Mori (Cong.), (Malia); Manharbhai Amrabhai Chavda (S.C.) (Cong.), (Manavadar); Jumakhlal Laxmichand Mehta (Cong.), (Mandvi); Prabhubhai Dhanabhai Patel (S.T.) (Cong.), (Mandvi); Naran Pala Gadhia (Cong.), (Mangrol); Ramjibhai Rupabhai Chaudhari (S.T.) (Cong.), (Mangrol); Chunibhai Ganeshdas Patel (Swa.), (Mansa); Smt. Gangaben Amritlal Vaghela (S.C.) (Cong.), (Matar);

Himatsinhji Jadav (Cong.), (Mehmedabad); Purushottamdas R. Patel (Cong.), (Mehsana); Naranbhai Shivjibhai Patel (Swa.), (Modasa); Vasantlal Vallabhdas Mehta (Swa.), (Morvi); Ramubhai Balubhai Jadav (S.T.) (Cong.), (Mota Pondha); Virji Bhimji Dafada (S.C.) (Cong.), (Mundra); Babubhai Jashbhai Patel (Cong.), (Nadiad); Himatbhai Mathurbhai Rajvadi (S.T.) (Cong.), (Nandod); Virumal Khushaldas Tarachandani (Cong.), (Naroda); Parshotambhai Ukedbhai Bhil (S.T.) (Cong.), (Naswadi); Suleman Eussuf Unia (Cong.), (Navsari); Hitendrabhai Kanaiyalal Desai (Cong.), (Olpad); Jashavantlal Saubhagyachand Shah (Cong.). (Padra); Anandlal Chimanlal Menta (Cong.), (Palanpur); Dalsukhbhai Jerambhai Patel (Cong.), (Palitana); Uttambhai Harjibhai Patel (S.T.) (Cong.), (Pardi); Vijaykumar Madhavlal Trivedi (Cong.), (Patan); Anvarbeg Ahmedbeg Mirza (Cong.), (Petlad); Popatlal Dahyabhai Kakkad (Cong.), (Porbandar); Narendrasinh Agarsinhji Jhala (Swa.), (Prantij); Raysinhji K. Jadeja (Swa.), (Radhanpur); Chimanlal Harilal Shukla (J.S.), (Rajkot-1); Manoharsinhji Pradyumansinhji Jadeja (Ind.), (Rajkot-2); Jashwantray Nanubhai Mehta (Cong.), (Rajula); Shantilal Ranchhoddas Shah (Cong.), (Rakhial); Sanatkumar Maganlal Mehta (P.S.P.), (Raopura); Bhupendrasinhji Gajsinhji Jadeja (Swa.), (*Rapar*); Ramubhai Jethabhai Bhatia (Cong.), (*Salia*); Karshanbhai Haribhai Chaudhari (Cong.) (Sami); Dahyabhai B. Jadav (Cong.), (Sanand); Kishorsinh Kalusinh Parmar (Cong.), (Santrampur); Vithalbhai Patel (Cong.), (Sarsa); Manilal Ashram Shah (Cong.), (Savli); Fatesinhrao Pratapsinhrao Gaekwad (Cong.), (Sayajganj); Dr. Somabhai C. Desai (J.P.), (Shahpur); Parvatsinh Ghamirsinh Parmar (Cong.), (Shahera); Chimanbhai Jivabhai Patel (Cong.), (Shankheda); Madhavlal Lallubhai Pandya (Cong.), (Sidh-pur); Manubhai Pancholi (Cong.), (Sihor); Indubhai Chaturbhai Patel (Cong.), (Sojitra); Keshar Bhagwan Dodiya (Swa.), (Somnath); Bhimsinghbai Fojsinh Vasava (S.T.) (Swa.), (Songadh); Gordhandas Ranchhoddas Chokhawala (Cong.), (Surat City East); Popatlal Mul-Shanker Vyas (Cong.), (Surat City North); Golandaz Mohmed Husein Abdul Shamad (Cong.), (Surat City West); Shiyabhadrasinhji Krishnakumarsinhji Gohil (Swa.), (Talaja); Smt. Vasantben Jaisukhbhai Shah (Cong.), (Tankara); Madhubhai Dadubhai Desai (Swa.), (Thasra); Satubhai Devubhai Thakaria (S.T.) (Cong.), (*Umergaon*); Udesinh Virsinh Vadodiya (Swa.), (*Umreth*); Parmanand das Jivabhai Oza (Cong.), (Una); Shankerlal Mohanlal Guru (Swa.), (*Unjha*); Jayaram Anandbhai Patel (Cong.), (*Upleta*); Navalchand Motilal Kansara (Cong.), (*Vagra*); Jagtabhai Pulabhai Parmar (S.C.) (Swa.), (Vav); Gangaram Chunilal Raval (Cong.), (Vijapur); Govindbhai Haribhai Patel (Cong.), (Viramgam); Kurji Dungar Patel (Swa.), (Visavadar); Smt. Shantaben Bholabhai Patel (Cong.), (Visnagar); Bhimsingbhai Siyabhai Gamit (S.T.) (Cong.), (Vyara); Surendrasinhji Joravarsinhji Jhala (Swa.), (Wadhwan); Mangaldas Gordhandas Pola (Cong.), (Waghodia); Digvijaysinhji Pratapsinhji (Swa.) (Wankaner).

Jamubhai Punjiram Bhatt (Swa.), (Meghraj); Jalamsinh

# HARYANA VIDHAN SABHA

Seats: 81.

Estimated Party Position: State Congress: 46; Jan Sangh 7; Vishal Haryana Party 12; BKD 1; Swatantra 1: RPI: 1; Independents 5: H.M.K.P. 7; Vacant 1.

Speaker: Brig. Ran Singh; Deputy Speaker: Mrs. Lekhewati Jain.

Chaudhry Bhajan Lal (Cong.), (Adam Pur); Mrs. Lekhwati Jain (Cong.), (Ambala); Bagwan Dass Sehgal (J.S.),

† Election set aside by Supreme Court on March 3, 1970.

(Ambala Cant.); Rao Birendra Singh (V.H.P.), (Ateli); Chand Ram (S.C.) (Ind.), (Babain); Mrs. Lajja Rani (Cong.), (Badhra); Hardwarilal (Cong.), (Bahadurgarh) Chaudhry Partap Singh Daulatpur (V.H.P.)† (Badopal); Smt. Sharda Rani (Cong.), (Ballabgarh); Shyam Chand (V.H.P.) (Baroda (R.)); Chaudhry Goverdhan Dass Chauhan (Cong.), (Barvala (R.)); Ch. Jeesukh (S.C.)(V.H.P.), (Bawall); Subedar Parbhu Singh (Cong.), (Bawanikhera (R.)); Brig. Ran Singh (Cong.), (Beri); Banarsi Das

Gupta (Cong.), (Bhiwani); Chaudhry Prabhu Ram (Cong.), (Chhachrauli); Teja Singh (Ind.), (Dabwali); Ganpat Rai (S.C.) (H.M.K.P.), (Dadri); Om Prakash (Cong.), (Ellenabad); Kamal Dev Kapil (H.M.K.P.), (Faridabad); Chaudhry Pokar Ram Godara (Cong.), (Fatehbad); Abdul Razzaq Khan (V.H.P.), (Ferozepur); Randhir Singh (J.S.), (Gharunda); Ram Dhari Gaur (Cong.), (Gohana); Mahabir Singh (R.M.K.P.), (Gurgaon); Chaudhry Hari Singh Saini (Cong.), (Hansi); Manohar Singh Azad (Cong.), (Hassan Pur); Maru Singh Malik (Cong.), (Hassangarh); Chaudhry Hem Raj Sehravat (Cong.), (Huthin); Balwant Rai Tayal (B.K.D.), (Hissar); Smt. Prasanni Devi (Cong.), (Indri); Dr. Rameshwar Dass Gupta (Cong.), (Jagadhri); Rao Sis Ram P.), (Jatusana); Daya Krishna (Cong.), (Jind); Mahant Ganga Sagar (H.M.K.P.) (Jhajjur); Dal Singh (Cong.), (Julana); Banwari Ram (R.P.), (Jundla (R)); Rajinder Singh (Cong.), (Kailana); Smt. Om Prabha Jain (Cong.), (Kaithal); Sat Ram Dass (J.S.), (Kalanaur); Bhagtu Ram (Cong. (Kalayan (R)); Lala Kishori Lal (Cong.), (Kalka); Chaudhry Dalip Singh (V.H.P.), (Kanina); Shanti Prasad Jaiswal (Ind.) (Karnal); Ranbir Singh (Cong.), (Kiloi); Smt. Chandravati (Cong.), (Loharu); Raj Singh Dalal (Cong.), (Mahem); Hari Singh Yadav (V.H.P.), (Mahendragarh); Chaudhry Ram Prakash (Cong.), (Mul-

lana); Ch. Sarup Singh (Cong.), (Mundhal Khurd); Khan Abdul Ghaffar Khan (Cong.), (Nangal); Chaudhy Lal Singh (Cong.), (Naraingarh); Ram Saran Chand Mitta (Cong.), (Narnaul); Joginder Singh (Swa.), (Narnaund); Chaudhry Neki Ram (Cong.), (Narwana); Jai Singh Rathi (H.M.K.P.), (Naultha); Chaudhry Chanda Singh (Cong.), (Nilokheri); Khurshed Ahmed (Cong.), (Nuh); Kalyan Singh (Cong.), (Palwal); Feteh Chand Vij (J.S.), (Panipat); Rao Ram Jiwan Singh (V.H.P.), (Pataudi); Piara Singh (Cong.), (Pehowa); Iswar Singh (Ind.). (Pundri); Chaudhry Jaswant Singh Chauhan (Cong.), (Rai); Ran Singh (Cong.), (Rajaund) (R)); Rajkumari Sumitra Devi (V.H.P.), (Rewari); Kanwar Singh Dahiya (H.M.K.P.), (Rohat); Mangal Sein (J.S.), (Rohtak); Chaudhry Harkishan Lal Kamboj (Cong.), (Rori); Satya Narain Syngol (V.H.P.), (Safidon); Mrs. Shakuntala (V.H.P.), (Sahlwas) (R)); Katar Singh Chhokar (Cong.), (Samhalka); Vacant (Shahabad); Prem Sukh Dass (Cong.), (Sambhalka); Vacant (Shahabad); Chaudhry Surjit Singh (Cong.), (Sherhada); Prem Sukh Dass (Cong.), (Sirsa); Kanahya Lal Poswal (Cong.), (Sohana); Mukhtiar Singh (J.S.), (Somepat); Om Prakash Garg (Cong.), (Thanesar); Harpal Singh (Cong.), (Tohana); Bansi Lal (Cong.), (Tosham); Dr. Mallikchand Gambhir (J.S.). (Yamuna Nagar).

# HIMACHAL PRADESH VIDHAN SABHA

Seats: 63 (S.C. 14, S.T. 3). Elected: 60; Nominated: 3.

Speaker: Dos Raj Mahajan. Dy. Speaker: Amin Chand.

An estimate of party position is as follows: Congress 42 (including three nominated); Jan Sangh 7; Independent 12; Communist 2.

Hari Ram (Cong.), (Amb.); Hira Singh Pal (Ind.), (Arki); Bansi Ram (C.P.I.), (Baijnath); Piru Ram (S.C.) (Cong.), (Balh); Des Raj Mahajan (Cong.), (Banikhet); Indar Singh (J.S.), (Bhattiyat); Ram Chand (S.T.) (Ind.) (Bharmaur); Dhian Singh (J.S.), (Bhota); D. R. Shankhyan (Cong.), (Bilaspur); Karam Singh (Cong.), (Chachiot); Kishori Lal (J.S.), (Chamba); Kewal Ram Negi (Ind.), (Chopal); Ved Bhushan (Ind.), (Dehra); Kashmir Singh (Cong.), (Dharampur); Rana Kultar Chand (Cong.), (Dharamsala); Lekh Ram (Ind.), (Doon); Dhinoo Ram (S.C.) (Cong.), (Gangath); Mehnga Singh (S.C.) (Cong.), (Gagret); Nikkoo Ram (S.C.) (Cong.), (Geharwin); Khazan Singh (Cong.), (Ghumarwin); Hari Singh (Cong.), (Gopalpur); Churamani (Ind.), (Guler); Kanshi Ram (J.S.), (Hamirpur); Paras Ram (C.P.I.), (Jaswan); Ram Chandra (Cong.), (Jawali); Gopi Ram (S.C.) (Cong.), (Joginder-

nagar); Ram Lal (Cong.) (Jubbal); Nek Ram Negi (S.C.) (Cong.), (Kandaghat); Hari Ram (Cong.), (Kangra), Mansa Ram (S.C.) (Cong.), (Karsog); Sita Ram (Cong.) (Kasumpti); T. S. Negi (S.T.) (Ind.), (Kinnaur); Lal Chand Prarthi (Cong.), (Kulu); Ranjit Singh (Ind.), (Kutlehar); Sh. Devi Singh (S.T.) (Ind.), (Lahaul-Spiti); Sukh Ram (Cong.) (Mandi); Amar Singh (S.C.) (J.S.) (Mewa); Babu Ram (Cong.), (Nadaum); Amin Chand (Cong.), (Nadaunta); Hardial (Cong.), (Nagrota); Tapindra Singh (Cong.) (Nahan); Arjan Singh (Cong.), (Nalagarh); Kartar Singh (Cong.), (Nurpur); Zalam Singh (S.C.) (Cong.), (Pachhad); Kunj Bihari Lal (Cong.), (Palampur); Guman Singh Chauhan (Cong.), (Paonta); Dr. Y. S. Parmar (Cong.), (Rainka); Wazir Chand (S.C.) (Cong.), (Rajgir); Vidya Dhar (S.C.) (Cong.), (Rajnagar); Nalu Ram (S.C.) (Ind.), (Rampur); Padam Dev (Cong), (Rohru); Kashmiri Lal (Ind.), (Santokhgarh); Dile Ram Shabab (Cong.), (Seraj Inner); Ishar Das (S.C.) (Cong.), (Seraj Outer); Daulat Ram Chauhan (J. S.), (Simla); Keshav Ram (S.C.) (Cong.), (Solan); Durga Chand (J.S.), (Sulah); Lachhmi Datt (Cong.), (Sundernagar); Jai Behari Lal Khachi (Ind.), (Theog); Prakash Chand (Cong.), (Una); Nominated ; Brahmanand (Cong.), (Kangra); N. L. Verma (Cong.), (Simla); Surat Singh Vaid (Cong.), (Sirmur).

#### JAMMU AND KASHMIR LEGISLATIVE ASSEMELY

Seats: 75 (including 6 seats reserved for Schedule Castes); Electorate: 20,30,366.

Speaker: Shamas-ud-Din. Dy. Speaker: Beli Ram.

An estimate of party position is given below: Congress 61; National Conference 3; Jan Sangh 3; Independent 3; Vacant 5.

Dharma Pal (Cong.), (Akhnoor); Gulam Mohmad Sadiq (Cong.), (Amira Kadal); Shamasud-Din (Cong.), (Anantnag); Abdul Rahman Mir (Cong.), (Badgam); Moh'd Anwar Khan (Cong.), (Bandipora); Moh'd Akhtar (Cong.), (Banihal); Shamas Ud Din (N.C.), (Baramulla); Mahant Ram (Cong.), (Basohli); Khaliq Mir (Cong.), (Beerwa); Jagat Ram Aryan (S.C.) (Cong.), (Bhaderwah); Mufti

Moh'd Sayed (Cong.), (Bajbehara); Randhir Singh (Cong.), (Billawar); Bhagat Chajjoo Ram (S.C.) (Cong.), (Bishnah (R)); Ghulam Moh'd Mir (Cong.), (Chadora); Abdul Qayoom (Cong.), (Chararsharif); Chajjoo Ram (Cong.), (Chhamb); Vacant (Dharhal); Monohar Nath Kaul (Cong.), (Devsar); Lassa Wani (Cong.), (Doda); Salam Yatu (Cong.), (Ganderbal); Mohammad Ayub Khan (Cong.), (Ghulab (Garh); Sardar Surrinder Singh (Cong.), (Gulmarg); Sxikant Kaul (Cong.), (Haba Kadal); Abdul Gani Lone (Cong.), (Handwara); Abdul Gani Mir (Cong.), (Harl); Moh'd Yahya Siddiqi (Cong.), (Hazaratbal); Abdul Gani Goni (Cong.), (Inderwal); Trilochan Dutta (Cong.), (Jammu Cantt.); Prem Nath Dogra (J.S.), (Jammu North); Ram Nath (J.S.), (Jammu South); Kanwar Ranjit Singh (Cong.), (Jandra-Garota); Girdhari Lal Dogra

<sup>+</sup> Election set aside by Supreme Court of India on March 3, 1970.

(Cong.), (Jasmugarh); Bashir Ahmed-Mian (Cong.), (Kangan); Kachoo Moh'd Ali (Cong.), (Kargil); Mohamad Younis (Cong.), (Karnah); Panjabu Ram (S.C.) (Cong.), (Kathua (R)); Ghulam Ahmed (Cong.), (Khanyar); Abdul Gani Namthali (Cong.), (Khansahib); Ghulam Mustaffa (Cong.), (Kishtwar); Moh'd Ashraf Khan (Cong.), (Kothar); Moh'd Yaqub Butt (Cong.), (Kulgam); Moh'd Sultan Tantry (Cong.), (Kupwara); Sanam Wang (Cong.), (Leh); Ghulam Nabi Wani (Cong.), (Lolab); Guran Ditta Mal (S.C.) (Cong.), (Marh (R)); Mohammad Aslam (Cong.), (Mendhar); Abdul Rahman (Cong.), (Nandi); Abdul Aziz (Cong.), (Noorabad); Hassan-ud-Din (Cong.), (Nowbug); Beli Ram (Cong.), (Nowshera); Makhan Lal (Cong.), (Pahalgam); Vacant (Pampore); Ghulam Rasool Dar (Cong.), (Pattan); Mir Ghulam Moh'd

(Cong.), (Poonch); Sana Ullalh Master (Cong.), (Pulwama); Ghulam Rasool Kar (Cong.), (Rafiabad); Abdul Rashid (Cong.), (Rajouri); Ghulam Qadir Mir (Ind.), (Rajpura); Hans Raj (Cong.), (Ramban); Vacant, (Ramgarh); Chandu Lal (S.C.) (Cong.), (Ramnagar); Bansi Lal Kohistani (Cong.), (Reasi); Kulbir Singh (Cong.), (R. S. Pora); Gazi Abdul Rehoman (N.C.), (Safa Kadal); Parmanand (S.C.) (Cong.), (Samba (R)); Abdul Aziz Parrey (Cong.), (Sonawari); Ghulamnabi Mircha (Cong.), (Sopore); Shamin Ahmed Shamin (Ind.), (Spopian); Noor Mohmmad (Cong.), (Tankipora); Shiv Charan Gupta (J.S.), (Tikri); Ali Mohammed Naik (Ind.), (Tral); Hem Raj Jandial (Cong.), (Udampur); Mohamad Muzaffar Khan (Cong.), (Uri); Vacant (Verinag); Syed Abdulla (N.C.), (Zadibal).

#### JAMMU AND KASHMIR LEGISLATIVE COUNCIL

Strength: 36.

Chairman: Pt. Shiv Narayan Fotedar; Deputy Chairman: Chunilal Sharma.

Elected by the Legislative Assembly: Nazir Hussain Samnani, Janak Raj, L. S. Charak, Peer Gias-ud-Din, Mohamad Iqbal, Ghulam Mustafa, Ghulam Qadir, Bhat, Bedar, Amirullah Khan, Sona Ullah Bodha, Munshi Habib-Ullah, Jatinder Dev, S. L. Mahajan, Dina Nath Sharma, Ghulam Mohd. Misgar, G. R. Sofi, Sain Dass,

Ghulam Mohamad Loan, Sonam Narboo, Harnam Singh, Sona Ullah.

Elected by Local Authorities: P. L. Karihalloo, Vacant.

Panchayat Constituency: Mangat Ram Sharma, Moti Ram Biagra, Ghulam Ahmed Beg, Vacant.

Nominated by the Governor: Ghulam Jeelani, Major Piar Singh, Mohamad Din Bandey, Mohamad Shafi, Ram Chand Mahajan, Sewa Ram, Haji Mir Alam, Sardar Gurmukh Singh.

#### KERALA LEGISLATIVE ASSEMBLY

The Kerala Assembly has been dissolved by the Governor on June 26, 1970 on the advice of the Chief Minister.

#### MADHYA PRADESH LEGISLATIVE ASSEMBLY

Seats: 297 (inclusive of one nominated) Scheduled Castes 39; Scheduled Tribes 61; Electorates: 183.85,315.

Speaker: Kashiprasad Pande.

An estimate of party strength is as follows: Cong. 168; Jan Sangh 59; P.V.D. 15; Lok Sevak Dal 29; Samyukta Socialist Party 8; Praja Socialist 4; Independents 6; Communist Party 1; Nominated 1; Vacant 6.

Narain Rao Panchi Ram (Cong.), ( Abhanpur); Bhure Lal (S.C.) (J.S.), (Agar (R)); Ram Gopal Tiwari (Cong.), (Akaltara); Bhagirath Bhamwar (S.T.) (S.S.P.), (Alirajpur (R); Madan Lal (S.C.) (Cong.), (Alot (R)); Ramhit Gupta (J.S.), (Amarpatan); S.S. Jham Singh Takur P.V.D.), (Amarwara); Bati Ram (S.C.), (Ambah (R)); Dr. S. N. Tripati (Cong.), (Ambikapur); Pachchita (S.C.) (Cong.), (Amanganj (R)); Chandmal Birdichand (Cong.), (Anjar); K. Kosaria (S.C.) (Cong.), (Arang (R)); Multan Mal Surana (L.S.D.), (Ashoknagar); Gopi Das Goel (S.C.) (J.S.), (Ashta (R)); Hargian Singh Bohare (P.S.P.), (Attair); Kanaihyalal Mehta (P.V.D.), (Badnagar); Dr. G. O. Sharma (J.S.), (Badnawar); T. Virendra Singh (P.V.D.), (Badewara); Laxman (Cong.), (S.T.), (Bagicha (R)); Kailash Chandra Joshi (J.S.), (Bagli), Raj Bhanu Shukla (J.S.), (Bahoriband); Mahipal Singh (S.T.) (Cong.), (Baihar (R)); Ramachandra Singh Deo (Cong.), (Baikunthpur); Arjan Das (J.S.), (Bairagarh); Laxmi Narain Sharma (J.S.). (Bairsiya); Gowardhandas Khandelwal (J.S.), (Baitul); Jodha Singh (S.T.) (Cong), (Bajag(R)); Budru Mahadeo (S.T.) (Cong.), (Bakawand (R)); Nand Kishore Sharma (Cong.), (Balaghat); Hiralal Sonboir (Cong.), (Balod); Rameswar Prasad Sharma (Cong.), (Baloda); Brijal Verma (L.S.D.), (Baloda Bazar); Ramcharan Pujari (J.S.), (Banda); Darshan Singh (J.S.), (Barelli); Ravindranath Bhargava (Cong.), (Bharghat); S. P. Chanpuria (S.S.P.), (Bargi); Amolak Chand Jain (Cong.), (Barwah); Daval Nana (S.T.) (J.S.), (Barwani (R)); Mahendra Bahadur Singh (Cong.), (Basana) Hiralal Pippal (S.C.) Dy. Speaker: Ramkishore Shukla.

(P.V.D.), (Basoda (R)); G. D. R. Tamaskar (Cong.), (Bemetara); Goverdhandas Khandelwal (J.S.), (Betul); K. S. Balaji (J.S.), (Bhainsdehi); Dr. J. Ram Rawte (S.T.) (Cong.), (Bhanupratappur (R)); Kishorilal Hans (S.C.)-(L.S.D.), (Bhandar (R)); Shivalal Mehta (Cong.), (Bhatapara); Keju Ram (Cong.) (Bhatagaon); Preet Ram Mangalu Ram (S.C.) (Cong.), (Bhalgaon (R)); Anup Singh Bhagwan Singh (Cong.), (Bhikangaon); Dharam Pal Singh Gupta (L.S.D.), (Bhilai); Raghubir Singh Kuswah (S.S.P.), (Bhind); Gulabehand Thamod (Cong.), (Bhojpur); Shakir Ali Khan (C.P.I.-M.), (Bhopal); Darbari (S.T.) (Cong.), (Bichhiya (R)); Drigpal Shah Kesri Shah (S.T.) (L.S.D.), (Bijapur (R)); Kedar Nath Rawat (Cong.), (Bijawar); Dr. Ram Charan Rai (Cong.), (Bilaspur), Chitra Kant Jayaswal (Cong.), (Bilha); Brij Kishor Patairiya (Cong.), (Bina); Maluram Singhania (L.S.D.), (Birendranagar); Babu lal Jain (Cong.), (Bohani); Kalya Singh Balaji (J.S.), (Bhemsdehi) (R)); Mohan Lal Shishir (J.S.), (Budhni); Paramanand Govindji Bala (J.S.), (Burhanpur); Ram-kisore Shukla (L.S.D.), (Byauhari); Sagar Singh Sisodiya (L.S.D.), (Chachaura); B. D. Mahant (Cong.), (Champa); Bhavanilal Verma (Cong.), (Chandrapur); Devilal Sharma (Cong.), (Chaurai); Thakur Deep Singh (S. T.), (Cong.), (Chhapara); Mahendra Kumar Manav (Cong.), (Chhatarpur); Smt. Vidyawati Mehta (Cong.), (Chhindwara); Chandra Pratap Tiwari (Cong.) (Churhat); Magadu Ganga (S.T.) (S.S.P.), (Chitrakot (R)); Ram Nandan Singh (P.S.P.), (Chitrakut); T. Deo Prasad Arya (S.T.) (P.V.D.), (Chowki (R)); Jagan Nath Singh (L.S.D.) (Dabara); Prabhu Narayan Tandan (Cong.) (Damoh); Paras Ram Ghurve (S.C.) (Cong.), (Damua (R)); Rama Boti (S.T.), (Cong.), (Dantewara (R)); Shyam Sundar Shyam (P.V.D.), (Datia); Vinay Kumar Diwan (Cong.), (Denba); Parshu Ram Sahu (J.S.), (Deori); Tribhuvan Singh (S. T.) (Cong.),

(Deosar (R)); Chote Lal (S.C.) (Cong.), (Deotalab (R)); Bhagwat Sabu (Cong.), (Depalpur); Krishnaji Rao Pawar (Ind.) (Dewas); Dr. Tuman Lal (S.C.) (Cong.), (Dhamdah (R)); Bhopal Rao Pawar (Cong.), (Dhamtari); Radu Singh (S.T.) (S.S.P.), (Dhamtla (R)); Vasant Sadashiv Pradhan (J.S.), (Dhar); Chandra Chud Prasad Singh (Cong), (Dharmajaigarh); Fateh Bhanu Singh (S.T.) (Cong.), (Dharmapuri (R)); Munna Lal (Cong.), (Dharsiwan); Gorelal Bhau Singh (S.T.) (Cong.), (Dhoolkot (R)); Sumer Singh Amraiya (S.C.) (P.V.D.), (Dimmi) (R)); Sunderal Uraiti (S.T.) (P.V.D.), (Didori (R)); Jemuklal Bhedia (S.T.), (Cong.), (Dondilohra (R)); Madan Tiwari (S.S.P.), (Dongargaon); Ganeshmal Bhandari (Cong.), (Dongargarh); Ratnakar Jha (Cong.), (Durg); Shyam Sundar Narain Mushram (Cong.), (Gadarwara); Mohan Lal Sitia (J.S.), (Garoth); Bhanu Pratap Singh (S.T.) (P.V.D.), (Garghoda (R)); Mandoo (S.T.) (J.S.), (Ghoradongri (R)); Parvat Singh (S.T.) (Cong.), (Ghuquri (R)); Rao Jadgish Singh (L.S.D.), (Gird); Lalman Singh (S.T.) (Cong), (Gobadbanas (R)); K. L. Kacherumal (S.C.) (P.V.D.), (Gohad (R)); T. Sasibhushan Sinh (Cong.) (Gowtegaon); K. N. Pradhan (Cong.), (Govindpura); Muni Prasad Shukla (Cong.), (Gudh); Inder Singh (J.S.), (Gulana); Raman Lal Premi (L.S.D.), (Guna); Vasudev Chandrakar (Cong.), (Gunder-(L.S.D.), (Guna); Vasudev Chandrakar (Cong.), (Gunder-dehi); Jagdish Prasad Gupta (J.S.), (Gwalior); Nanhe Lal Patel (Cong.), (Harda); Kali Charan Sakargaye (Cong.), (Harsud); J. K. Bajaj (Cong.), (Hatta); Smt. Shusheel Devi Dixit (Cong.), (Hoshangabad); A. B. Karamat Beg (S.S.P.), (Indore I); Gangaram Tiwari (Cong.), (Indore II); Kalyan Jain (S.S.P.), (Indore III); Yagyadutt Sharma (Ind.), (Indore IV); Hari Prasad Chaturvedi (Cong.), (Itarsi); Man Mohan Das (Cong.), (Jabalpur Cont.), Lagdish Narayan Awasthi (Cong.), (Indopense Cant.); Jagdish Narayan Awasthi (Cong.), (Jabalpur East); Pt. Kunjilal Dube (Cong.), (Jabalpur West); Deva Kosa (S.T.) (J.S.), (Jagdalpur (R)); Ram Prasad Singh (S.T.) (Cong.), (Jaisinghnagar (R)); Bhagwan Deen Gaur (S.T.) (Cong.), (Jaitpur (R)); Bankat Lal (Cong.), (Jaora); Muhammad Bashir Khan (Cong.), (Jarhagaon); Johan (S.T.) (Cong.), (Jashpur (R)); Narendra Singh Judeo, (L.S.D.), (Jatara); Virendra Kumar Sakhleecha (J.S.), (Jawad\*); Ram Charan Lal Mishra (Cong.), (Jawra); Bapu Singh (S.T.) (Cong.), (Jhabua (R)); Ajmer Singh (S.T.) (Cong.), (Juat (R)); Vishram Doangai (S.T.) (Cong.), (Kanker (R)); Smt. Vijaya Raje Sindhiya (L.S.D.), (Karera); Dr. Kanaiya Lal Sharma (Cong.), (Kasdol); Hemraj Jain (Ind.), (Katangi); Sailyendra Mishra (Cong.), (Katangi); B. L. Naubathram (Cong.), (Katghora); T. Viswaraj Singh (L.S.D.), (Kavardha); T. Nathuram Mala (S.T.) (J.S.), (Keskal (R)); Kum. Vimala Verma (Cong.), (Kevlari); K. Virendra Singh (L.S.D.), (Khachrod); Raj Bahadur Virendra Bahadur Singh (L.S.D.), (Khairagarh); Shankarlal Tiwari (Con.), (Khairalanjee); Krishan Rao Gadre (J.S.), (Khandva); Balbant Sangale (Cong.), (Khargaon); Prabhu Dayal Chaube (Cong.), (Khilchipur); Rilli Ram (S.C.) (Cong.), (Kharagpur (R)); Hindoo Singh Nihal Singh (J.S.), (Khategaon); Hari Prasad Shukla (Cong.), (Khujji); Kunji Lal Chaudhury (S.C.) (J.S.), (Khurai (R)); Jhankar Singh (Cong.), (Kirnapur); Jagdish Prasad Verma (L.S.D.), (Kolaras); M. Lachhu Ram (S.T.) (L.S.D.), (Kondagon (R)); Dhansay (S.T.) (L.S.D.), (Konta (R)); Mathura Prasad Dube (Cong.), (Kota); Mrigendra Singh (L.S.D.), (Kotma); Chhitu Singh (S.T.) (Cong.), (Kukshi (R)); Tarachand Ram Dayal (Cong.), (Kurud); Krishna Kumar Nutan (J.S.), (Kurwai); S. P. Tripathi (J.S.). (Lahar); Vasant Rao Uike (S.T.), (Cong.), (Lakhnadon (R)); Deveshwar Singh (J.S.), (Lakhanpur); Narbada Prasad Srivastawa (Cong.), (Lanji); Sheetala Sahay (Lashkar); Smt. Saroj Kumari (Cong.), (Laundi); Rajendra Prasad Shukla (Cong.), (Lormi); Chamru Virsai (S.T.) (Cong.), (Lundra (R)); Lachhman Das (S.C.) (Cong.).

(Maharajpur (R)); Nemichand Srimal (Cong.), (Mahasamund); Seeta Ram Sadhu Ram (S.C.) (Cong.), (Maheswar (R)); Ram Chandra (J.S.), (Mahidpur); R. C. Jal (Cong.), (Mahu); Gopal Saran Singh (L.S.D.), (Maihar); Govind Singh Joo Deo (Cong.), (Malehara); Ved Ram (S.C.) (Cong.), (Malkharoda (R)); Nand Ram Das (Cong.), (Manasa); Shiv Bhanu Solanki (S.T.) (Cong.), (Manawar (R); Smr Narayani Devi Jha (Cong.), (Mandla); Thakur Mohan Singh (J.S.), (Mandsaur); Dharma Pal Singh (S.T.), (Cong.), (Manendragarh (R)); Rukmini Ram Pratap Singh (Cong.) (Mangava); Dharma Prasad Patre (S.C.) Cong.), (Maro (R)); Lal Chandra Sekhar Singh (S.T.) (Cong.), (Marwahi (R)); Budh Rao Daulat Rao Cong.), (Masod); Godilprasad (S.C.) (Cong.), (Masturi (R)); Jadgish Prasad Tiwari (Cong.), (Mauganj); Rai Singh Bhadauriya (P.V.D.) (Mehgaon); Dharam Prasad Patra (S.C.) (Cong.), (Maro (R)); Jahar Singh (J.S.), (Morena); Rao Chandan Singh (P.V.D.) (Mungawli); Ganesh Ram Anant (S.C.) (Cong.), (Mungeli (R)); Balkrishna Rao Deo Rao (Cong.), (Multi); Naresh Chandra Joshi (J.S.) (Murar). Lakham Singh Solanki (Cong.), (Murwara); Nareshchandra Johari (J.S.), (Morar); Visweshwar Prasad (S.C.), (Cong.), (Nagaud (R)); Vacant (Narainpur, (R); Mahendra Singh Kiledar (L.S.D.), (Narsinghpur); Vacant (Narsinghgarh); Jagan Nath, Singh (S.T.) (Cong.), (Nawrojabad (R)); Raghu Nandan Prasad (Cong.), (Neemuch); Radha Krishna (J.S.), (Nirmarkheri ); Lala Ram Bajpayee (Cong.), (Niwari); Fatch Singh (S.T.) (Cong.), (Niwari); Fatch Singh (S.T.) (Cong.), (Niwari); Deosay Marabi (S.T.) (Cong.), (Pal (R)); Bhavar Singh (L.S.D.), (Palari); Mahavir Prasad Kurre (S.C.) (Cong.), (Pamgar (R)); Parmanand Bai Patel (Cong.); (Panagar); Phoolchand Varma (S.C.) (J.S.) (Pandhana (R)); Madhav Lal Dube (Cong.), (Pandhurna), Het Ram Dube (Cong.), (Panna); B. R. Amrit Rao (S.C.) (Cong.), (Parasia (R)); Pratap Lal Visen (L.S.D.), (Paraswada); Smt. Asha Lata Jadhav (S.C.) (L.S.D.), (Patan (R)); Umed Singh (S.T.) (Cong.), (Pathalgaon) (R); K. L. Bhav Singh Chaudhry (S.C.) (Cong.), (Patharia (R)); Ram Sewak (L.S.D.); (Pawai); Bel Singh (S.T.) (Cong.), (Petlawad (R)); Laxmi Narain Gupta (L.S.D.), (Pichhore), Smt. Ratan Kumari Devi (Cong.), (Piparia); B. P. S. Giri Raj Singh (Cong.), (Pithaura); Babu Lal Arjun (S.C.), (L.S.D.), Pohari (R)); Sahdeo Singh (S.T.) (J.S.), Premnagar (R)); Lalan Singh (S.T.) (Cong.) Pushprajgarh (R)); Smt. Lalita Devi (Cong.), (Pusaur); Prabhu Lal Jatav (S.C.) (P.V.D.) (Raghogarh); R. K. Laxmandas Agrawal (Cong.), (Raigarh); Saradacharan Tiwari (L.S.D.), (Raipur); Vijaysingh (Cong.), (Rajgarh); Shyam Charan Shukla (Cong.), (Rajim); Kishori Lal Shukla (Cong.), (Rajnandgaon); Baraku Prasad Tiwari (J.S.), (Rehli); Satrugnan Singh Tiwari (Cong.), (Reeva) Raghubir Singh (L.S.D.), (Ron); Briji Raj Singh (L.S.D.), (Sabalgarh); Dalchand Jain (Cong.), (Sagar); Pabhu Dayal Gahlod (S.T.) (Cong.), (Sailana (R)); Smt. Indumati Devi (Cong.), (Sakti); Larang Say (S.T.) (J.S.), (Samari (R)); Babulal Kaluji (S.C.) (J.S.), (Samwer (R)); Kundan Lal (S.C.) (J.S.), (Sanchi (R)); Jai Day Satrati (Cong.), (Sanchi (R)); Kuni Ram (S.C.) Jai Dev Satpati (Cong.), (Saraipali); Kunj Ram (S.C.) (L.S.D.), (Saramgarh) (R)); Ganga Ram Jatav (S.C.) (J.S.), (Sarangpur (R)); Babu Singh Alawa (S.T.) (Ind.), (Sardarpur (R)); Smt. Kanta Parekh (Cong.), (Satna); M. R. Narayan Rao Chaure (Cong.), (Saunsar), Moksha Madan Singh (S.T.) (Cong.), (Seetapur (R)); Vikalal Moti (S.T.), (J.S.), (Sendhawa (R)); Surya Deo Sharma (L.S.D.), (Seondha); Manohar Rao Jatar (Cong.), (Sewani); Babulal Sugandi (Cong.), (Shahapur); Ramesh Chandra

<sup>\*</sup> Election set aside by M. P. High Court.

Dabe (L.S.D.), (Shajapur); Sivacharan Tiwari (J.S.), (Sheopur); Susheel Bahadur (J.S.), (Shivpuri); Veerchand (J.S.) (Shujalpur); Keshav Prasad Singh (Cong.) (Sidhi); Pusau Ram (S.T.) Cong), (Sihaba (R)); Rajmal Mewada (J.S.), (Sihore); Kashi Prasad Pandey (Cong.), (Sihora); Prem Singh (Cong.) (Singaroli); Yamuna Prasad Shastri (P.S.P.), (Sirmaur), Mangal Singh (J.S.), (Siroj); Rajendra Singh Sisodiya (J.S.) (Sitamau); Mohcharrao Jatar (Cong.) (Sivni); Krishna Pal Singh (Cong.); (Sohagpur); Khoobchand Golia (S.C.) (Cong), (Sonkutch (R)); Brajeshwar Sharan Singh (Cong), (Surajpur); Narmada Prasad Rai (S.C.) (J.S.). (Surakhi (R)); Shivlal (J.S.), (Susner); Champalal Arya (S.C.) (J.S.) (Suwasara (R)); Manhar Lal Pande (J.S.) (Takhatpur); Lal Kirti Kumar Singh (S.T.) (Cong.), (Tanekar (R)); Keddar Nath (S.T.) (Cong.),

(Tapkara (R)); Madhav Singh (J.S.) (Tarana); Radu Singh (S.T.) (S.S.P.) (Thandala (R)); Gyanendra Singh (Cong.), (Tikamgarh); Dhanlal Choudhury (S.C.) (Cong.), (Timrani (R)); Lala Kamaleswar Singh (Cong.), (Tyothar) Dr. Shankar Dayal Sharma (Cong.), (Udaipura); Mahadeo G. Joshi (J.S.). (Ujjain North); Ganga Ram Parmar (S.C.) (J.S.) (Ujjain South (R)); Arjun Singh (Cong.), (Umaria); Raghayij (J.S.) (Vidisha); Jag Mohan Singh (L.S.D.), (Vijaypur); Laxmi Shankar Bhatt (Cong.), (Vijay Raghogarh); Kham Singh Komarra (S.T.) (J.S.), (Vindranawagarh (R)); Jagan Nath (J.S.), (Viawara); Ram Kishore Shukla (Cong.), (Vyohari); F. A. Lemos Nominated; Thansingh (Cong.), (Waraseoni).

Note: — P.V.D. — Progressive Vidhayak Dal; L.S.D. — Lok Sevak Dal,

#### MAHARASHTRA LEGISLATIVE ASSEMBLY

Seats: 271 (including one Anglo-Indian nominee). S.C. 15; S.T. 16. Total Electorate: 22,225,473.

Speaker: T. S. Bharde, B.A., LL.B. Dy. Speaker: K. T. Girme, LL.B. Secretary: S. H. Belavadi, B.Sc., LL.B., H. (H.S.). Jt. Secretary: S. R. Kharabe, B.A., LL.B., H. (H.S.); Dy. Secretaries: A. B. Palekar, B.A. (Hon.), LL.B.; M. J. Tamane, B.A. Dip. Ed., LL.B., H. (H.S.).

An estimate of party position is as follows: Cong. 191; Cong. (0) 13; S.M.S. (P.W.) 21; S.M.S. (C.P.I.) 9; S.M.S. (C.M.) 2; S.M.S. (S.S.) 6; S.M.S. (Ind.) 2; S.M.S. (M.L.) 1; S.M.S. (H.S.) 1; D.F. (P.S.) 7; D.F. (F.B.) 1; J.S. 6; Rep. 2; D.F. (Ind.) 6; Ind. 2; Nonimated 1.

Narsingrao S. Deshmukh (Cong.), (Achalpur); Moreshwar Nama Waldekar (Rep.), (Adyal); Kisanrao B. Mhaske (Cong.), (Ahmednagar North); Dr. S. V. Nisal (Cong.), (Ahmednagar-South); M. B. Sangvikar (Cong.), (Ahmedpur); Smt. Nirmala Raje V. Bhonsle (Cong.), (Akkalkot); Jamanlal S. Goenka (Cong.), (Akola); K. S. Tidke (J.S.-Ind.), (Akot); D. N. Patil (S.M.S.—P.W.), (Alibag); K. M. Patil (Cong.), (Amalner); Annasaheb A. Udan (Cong.), (Ambad); D. G. Walase Patil (Cong.), (Ambegaon); Laxmarrao B. Mankar (J.S.), (Amgaon); K. N. Nawathe (Cong.), (Amravati); Dr. Vasudev G. Rawal (Cong.), (Andheri); A.S. Paulzagade (Cong.), (Arjuni-Morgaon); Narayansinh S. Weakey (S.T.), (S.M.S.-S.S.), (Armori); J. G. Kadam (Cong.), (Arvi); Nivrutti V. Ugale (S.M.S.-C.P.I.), (Ashti); B. S. Kore (Cong.), (AtpadiKavathe-Mahankal); Vishwanath S. Jadhav, (Aurangabad-East); Dr. Rafiq Zakaria (Cong.), (Aurangabad-West); Vishwambarrao S. Musande (Cong.), (Ausa); K. B. Shringare (Rep.), (Badnera); Pandit D. Patil (Cong.), (Baglan); Madhusudan A. Vairale (Cong.), (Balapur); P. G. Kher (Cong.), (Bandra); S. G. Pawar (Cong.), (Baramati); Smt. Prabhatai S. Zadbuke (Cong.), (Barshi); W. A. Nayak (Cong.), (Basmat); H. G. Vartak (Cong.), (Bassein); R. J. Deotale (Cong.), (Bhadravati); N. K. Tirpude (Cong.), (Bhandara); Tikamdas D. Memjade (S.C.) Cong.), (Bhawani Peth); Shivajirao Baburao Chaure (Cong.), (Bhir); B. S. Patil (S.M.S.-P.W.), (Bhiwandi); Shankarrao B. Chavan (Cong.), (Bhokar); Baburao J. Kale (Cong.), (Bhokardan); Kakasaheb alias S. M. Bhelke (Cong.), (Bhor); P. S. Phalak (Cong.), (Bhusawal); Jayaram Gangaram Ambekar (Cong.), (Biloli); Nilkantha S. Sapkal (Cong.), (Borgaon-Manju); Jamnadas G. Dattani (Cong.-O.), (Borivli); Baliram M. Gurpude (Cong.), (Brahmapuri); Smt. Sumanbai Shivajirao Patil (Cong.), (Buldhana); G. B. Ganacharya (S.M.S. C.P.I.), (Byculla); Dinkar D. Chavan (S.C.) (Cong.), (Chalisgaon); Eknath P. Salve (Cong.), (Chanda); V. K. Chavan-Patil (Cong.), (Chandgad); B. G. Jadhav (Cong.), (Chandur); Raghunathrao G. Gunjal (Cong.), (Chandwad); Vishwanathrao A. Darade (S.M.S.-C.P.I.),

Chausala); Hashu Parsharam Advani (J.S.), (Chembur); Tryambakrao B. Khedekar (Cong.), (Chikhali); M. D. Tumpalliwar (Cong.), (Chimur); P. K. Sawant (Cong.), (Chiplun); Maganlal Nagindas Gujarathi, (DF-Ind.), (Chopda); B. K. Boman Behram (Ind.), (Colaba); V. B. Hire (Cong.), (Dabhadi); Dr. Waman S. Matkar (Cong.-O.), (Dadar); Mahadev G. Kadu (S.T.), (Cong.), (Dahanu); R. V. Bhelose (Cong.), (Dapoli); Narayanrao U. Deshmukh (Cong.), (Daryapur); V. B. Ghuikhedkar (DF-Ind.), (Darwha); Madhukar R. Ghate (S.C.) (Cong.), (Degloor); Ramachandra B. Munj (D.F.-P.S.), (Deogad); S. N. Deshmukh (Cong.), (Deolali); Dr. Mohanlal B. Popat (Cong.), (Dhobitalao); J. T. Pataskar (Cong.), (Dhond); C. N. Patil (Cong.), (Dhulia North); Dr. R. B. Choudhari (S.M.S.-C.P.I.), (Dhulia South); K. D. Mahindre (Cong.), (Digras); Shankar B. Potinde (S.T.) (S.M.S.— P.W.), (Dindori); Smt. Pratibha Devisinh Patil (Cong.), E.W.), (Binaori); Smt. Prationa Devisina Patri (Cong.), (Edlabad); D. S. Patil (Cong.), (Erandol); Vishweshwarrao Dharmarao Atram (S.T.) (D.F.-Ind.), (Gadchiroli); Tukaram K. Kolekar (S.M.S.-P.W.), (Gadhinglaj); Tryambak M. Sawant (S.C.) (Cong.), Gangakhed); B. R. Pawar (Cong.), (Gangapur); S. T. Pawar (S.M.S.-C.P.I.), (Georai); Dr. Datta N. Samant (S.M.S.-Ind.), (Ghatkopar); A. N. Namjoshi (Cong.), (Girgaon); Dr. Gopalnarayan S. Bajpai (Cong.), (Gondia); P. D. Rahangdale (Cong.), (Goregaon); Mahadev Somaji Kesarkar (Cong.), (Guhagar); B. K. Deshmukh (Cong.), (Hadgaon); Babasaheb B. Khanjire (Cong.), (Hatkanangale); M. D. Magar (Cong.), (Haveli); Keshaorao M. Zade (Cong.), (Hinganghat); Chandrakant Patil (S.M.S.-S.S.), (Hingoli); Shankarrao G. Chavare (S.T.) (Cong.), (Igatpuri); Shankarrao Bajirao Patil (Cong.), (Indapur); T. T. Salunke (Cong.), (Jalgaon); Radhakrishnan B. Jaiswal (S.M.S.—S.S.), (Jalna-South); B. G. Gadhe (Cong.), (Jalna-North); A. N. Patil (Cong.), (Jamner); Bhiku Daji Bhilare (Cong.), (Jaoli); Shivrudra T. Bamane (S.C.) (Cong.), (Jath); Smt. Kalavati Shankar Karavande (S.T.) (Cong.), (Jawhar); Sundarlal W. Kalamkar (Cong.), (Jintur); D. R. Kakde (Cong.), (Junnar); Daulatrao A. Nikam (Cong.), (Kagal); S. A. Solanke (Cong.), (Kaij); Devedattaji T. Mohite (Cong.), (Kalamb); Vithalrao C. Naik (S.M.S.-C.P.I.-M), (Kalamnuri); S. K. Wankhede (Cong.), (Kalmeshwar); K. N. Dhulap (S.M.S.-P.W.), (Kalyan); S. A. Pathan (Cong.), (Kamptee); K. S. Dhondge (S.M.S.-P.W.), (Kandhar); Sitaram S. Sawant (S.M.S.-P.W.), (Kankavali); Nara-yanrao G. Patil (Cong.), (Kannad); Y. B. Patil (Cong.), (Karad North); Y. J. Mohite (Cong.), (Karad South); (Karaa North); Y. J. Monte (Cong.), (Karaa South); E. B. Nimbalkar (Cong.), (Karjat); Kisan G. Kamble (S.C.) (Cong.), (Karmala); Shripatrao S. Bondre (Cong.), (Karvir); Rajaram V. Sumda (S.T.) (Cong.), (Kasa); R. V. Telang (Cong.), (Kasba Peth); Jivanlal S. Chandak (D.F.-Ind.), (Katol); T. D. Deshmukh (Cong.), (Kelapur);

Note: S. M. S. (Sampurna Mabarashtra Samiti); P.W. (Peasants & Workers); S.S. (Samyukta Socialist); H.S. (Hindu Sabha); P.S. (Praja Socialist); F.B. (Forward Bloe); D.F. (Democratic Front); Rep. (Republican).

Sumant Rajaram Raut (S.M.S.-P.W.), (Khalapur); Govinddas R. Bhatia (Cong.), (Khamgaon); S. S. Mane (Cong.), (Khanapur); Ramchandra G. Patil (Cong.), (Khatav); S. M. Satkar (Cong.), (Khed-Alandi); Hussain M. Dalwai (Cong.), (Khed-Bunder); Manohar N. Gogate (Cong.-O.), (Khetwadi); U. B. Rathod (Cong.), (Kinwat); T. S. Karkhanis (S.M.S.-P.W.), (Kolhapur); A. N. Phalke (Cong.), (Koregaon); B. M. Yagnik (Cong.), (Kumbharwada); Dr. T. R. Naravane (Cong.-O.), (Kurla); Shashishekhar Kashinath Athalye (S.M.S.-S.S.), (Lanja); Vithal R. Kaldate (S.M.S.-S.S.), (Latur); Kisanrao Tukaram Sangle (Cong.), (Lonar); P. T. Patel (S.C.), (Cong.), (Lovegrove); Sampatrao M. Patil (S.M.S.-P.W.), (Madha); S. B. Sawant (Cong.), (Mahad); F. M. Pinto (Cong.), (Mahim); D. S. Patel (Cong.-O.), (Malad); Ahmed Moulavi M. Usman Nihal (D.F.-P.S.), (Malegaon); Abarao S. Deshmukh (Cong.), (Malkapur); S. N. Mohite (Cong.), (Malshiras); V. G. Prabhugaonkar (Cong.), (Malwan); Dr. P. T. Sonwane (S.C.) (Cong.), (Man); Kisanlal R. Marda (Cong.), (Mangalwedha); Pandurang R. Sanap (S.M.S.-P.W.), (Mangaon); C. U. Raghuvanshi (J.S.), (Mangrulpir); S. N. Tribhuwan (S.C.) (Manjlegaon); L. P. Shah (Cong.), S. N. Tribhuwan (S.C.) (Manjlegaon); L. P. Shah (Cong.), (Matunga); Raghunath S. Satkar (Cong.), (Maval); Dr. V. K. Toraskar (Cong.), (Mazgaon); Ramrao G. Zanak (Cong.), (Medshi); Sitaram Chinkaji Lodhe (Cong.), (Mehkar); Ramu Mhatang (Cong.), (Melghat); G. D. Patil (Cong.), (Miraj); Govind B. Burgute (Cong.), (Mohol); K. W. Wankhede (Cong.), (Morshi); Namdeo S. Mohol (Cong.), (Mulshi); P. U. Upadhyay (Cong.-O.), (Mulund); S. G. Gholap (Cong.), (Murbad); Smt. Pratibha Bhagvant Tidke (Cong.), (Murtizapur); B. K. Deshmukh (S.T.), (S.M.S.-C.P.I.), (Nagar-Akola); Adamadil Usman Shaikh (Cong.-O.) (Nagar-Ákola); Adamadil Usman Shaikh (Cong.-O.), (Nagpada); Madangopal Jodhraj Agrawal (Cong.), (Nagpur-Central); Yadavrao R. Deogade (Cong.-O.), (Nagpur East); P. R. Wasnik (S.C.) (Cong.), (Nagpur North); Dr. (Smt.) Sushilabai Balraj (Cong.), (Nagpur-West); Ram Arjun Mahadik (D.F.-P.S.), (Naigaon); S. Farook Pasha S. Makdum Pasha (Cong.), (Nanded); Shivram D. Hire (S.M.S.-S.S.), (Nandgoon); R. P. Valvi (S.T.) (Cong.), (Nandurbar); Shantarambapu Kondaji Wavre (Cong.), (Nasik); D. J. Kokni (S.T.) (Cong.), (Nawapur); Sivajirao B. Patil (Cong.), (Nilanga); Dattatraya B. Patil (Cong.), (Niphad); B. S. Chalukya (Cong.), (Omerga); U. S. Patil (S.M.S.-P.W.), (Osmanahad); Supdu B. Patil (Cong.), (Pachora); K. P. Patil (Cong.), (Paithan); Navnit-(Cong.), (Pachora); K. P. Patil (Cong.), (Paithan); Navnitrai B. Shah (D.F.-P.S.), (Palghar); A. K. Patil (Cong.), (Pandharpur); D. Y. Patil (Cong.), (Panhala); Dinkar B. Patil (S.M.S.-P.W.), (Panvel); Konderao H. Patil (Cong.), (Paranda); Annasaheb R. Gavhane (S.M.S.-P.W.), (Parbhani); Vacant. (Parel); N. R. Gunjal (Cong.), (Parner); G. N. Pawar (Cong.), (Parola); Ramrao N. Yadav (Cong.), (Patur); Daulatrao S. Desai (Cong.), (Patan); T. S. Bharde (Cong.), (Pathardi); Sakharam G. Nakhate (Cong.), (Pathri); Anant P. Shetye (S.M.S.-P.W.), (Pen); K. R. Bhotei (Cong.), (Phaltan); K. T. Girme (Cong.), (Poona Cantt.);

Narayanrao R. Kale (S.M.S.-P.W.) (Pulgaon); D. R. Khaire (Cong.), (Purandhar); V. P. Naik (Cong.), (Pusad): Gobind T. Kalikate (S.M.S.-P.W.) (Radhanagari); B. B. Tanapure (Cong.), (Rahuri); Laxman R. Hatankar (D.F. P.S.), (Rajapur); Shrihari B. Jivtode (Cong.-O.), (Rajura); M. N. Bhalawi (S.T.) (D.F.-Ind.), (Ralegaon); Gunderao F. Mahajan (Cong.), (Ramtek); S. L. Peje (Cong.), (Ratnagiri); M. D. Choudhari (Cong.), (Raver); A. G. Gite (Cong.), (Renapur); Shamrao Pagaji Kapagate (J.S.) (Sakoli); Uttamrao Ratan Patil (S.M.S.-C.P.I.). (Saleri); Smt. Laxmibai B. Bhuwad (Cong.), (Sangame-shwar); B. J. Khatal (Cong.), (Sangamer); Appassheb B. Birnale (Cong.), (Sangli); G. A. Deshmukh (S.M.S.-P.W.), (Sangola); S. B. Patkar (Cong.-O.), (Santacruz); W. V. Gaddamvar (Cong.), (Saoli); N. M. Tidke (Cong.), (Saoner); D. S. Jagtap (Cong.), (Satara); S. K. Bhonsale (Salare); D. S. Jaguap (Cong.), (Salara); S. K. Bhonsaie (Cong.), (Sawantwadi); S. G. Patkar (S.M.S.-C.P.I.) (Sewree); S. B. Pawar (S.T.) (Cong.), Shahada); P. R. Patil (S.T.) (S.M.S.-P.W.), (Shahapur); Rau Dhondi Patil (S.M.S.-P.W.), Shahuwadi); Tulsiram P. Dhokne (Cong.), (Shegaon); M. S. Ghule (Cong.), (Sheygaon); Narayanrao S. Patil (Cong.), (Shindkheda); V. A. Naik (Cong.), (Shirala); Mohanrao A. Gade (D.F. Ind.), (Shirdi); R. B. Kumbhar (Cong.), (Shirol); Shivajirao G. Patil (Cong.), (Shirpur); Balwant D. Killedar (S.M.S.-P.W.), (Shivajinagar); Ramkrishna V. Bet (Cong.), (Sholapur City-North); V. R. Patil (S.M.S.-H.S.), (Sholapur City South); B. K. Mane (S.M.S.-Ind.), (Sholapur North); V. G. Shivdare (Cong.), (Sholapur South); B. M. Bharaskar (S.C.) (Cong.), (Shrigonda); Jagannathrao Wamanrao Bankar (Cong.); (Shrirampur); A. R. Gafoor Antuley (Cong.), (Shrivardhan); Ramchandra K. Mhalgi (J.S.), (Shukrawar Pett); Gangaram S. Mankar (Cong.), (Sillod); Smt. Rukhminibai V. Waje (Cong.), (Sinnar); Mukundrao Vithoba Aloni (S.C.) (Cong.), (Sironcha); Shyamkant D. More (D.F.-P.S.), (Sirur); Siraram Sayaji Bhoye (S.T.) (Cong.), (Surgana); Smt. Vahirabai D. Padvi (S.T.) (Cong.), (Taloda); Balasaheb G. Patil (Cong.), (Tasgaon); D. K. Rajarshi (Cong.), (Thana); Bhaiyalal L. Patle (Cong.), (Tirora); S. S. Patil (Cong.), (Tuljapur); K. A. Pardhi (Cong.), (Tumsar); Pralhadrao S. Sarvade (S.C.) (Cong.), (Udgir); Sanmukh C. Israni (Cong.), (Ulhasnagar); S. A. Mane (Cong.), (Umarkhed); G. Haji N. Banatwalla (S.M.S.-M.L.), (Umerkhadi); Suresh B. Deotale (Cong.), (Umrer); Keshav N. Ghatge (S.C.), (Cong.), (Vadgaon); G. D. Patil (Cong.), (Vajapur); Pranlal Pundalik A. Kinlekar (D.F.-P.S.), (Vengurla); Pranlal Harikisandas Vora (Cong.-O.), (Vile Parle); Prataprao B. Bhonsle (Cong.), (Wai); U. B. Mahalle (Cong.), (Walgaon); Homi Jehangir Taleyarkhan (Cong.), (Walkeshwar); R. A. Patil (Cong.), (Walwa); Dr. V. Y. Gohokar (Cong.), (Wani); Ramachandra Marotrao Ghangare (S.M.S.-C.), Walkeshwar, (C.R.I. M.), (Wani); Ramachandra Marotrao Ghangare (S.M.S.-C.), (Wani); M. Khingda (S.C.), (Wani); M. Khin (Pani); Ramachandra Marotrao Ghangare (S.M.S.-C.P.I. M.) (Wardha); Smt. Manabai M. Khirade (S.C.) (Cong.), (Washim); Dr. Madhav N. Birje (Cong.O.), (Worli); Jiwaram T. Mahajan (Cong.), (Yaval); Madhavrao T. Patil (Cong.), (Yeola); Jambhuwantrao B. Dhote (D.F.-F.B.), (Yeotmal); D. L. Amore (Nominated).

#### MAHARASHTRA LEGISLATIVE COUNCIL

Strength: 78.

Chairman: V. S. Page; Dy. Chairman: R. S. Gavai; Secretary: S. H. Belavadi; Jt. Secretary: S. R. Kharabe; Dy. Secretaries: A. B. Palekar; M. J. Tamane.

Party position; Congress 51; Jan Sangh 4; Sampurna Maharashtra Samiti 1; Praja Socialist 4; Republican 3; Communist Party of India 1; Peasants & Workers Party 1; Bharatiya Kranti Dal 1; Rashtriya Lokshahi Aghadi 4; Independent 8. Local Authorities' Constituency (22): Pandurang Yeshwant Phalke (Cong.), (Ahmednagar); Vinayakumar Ramlal-Parashar (Cong.), (Akola and Buldana) Ramdayal A. P. Gupta (R.L.A.), (Amravati); Baburao Govindrao Jadhav (Cong.-R), (Aurangabad); Chhedilal Budhanlal Gupta, (Cong.), (Bhandara); Wasadeo Narayan Bhruguwar (Cong.), (Chanda and Rajura); Prabhakar Damodar Dalal (Ind.), (Dhulia); Waman P. Bapat (S.M.S.), (Gr. Bombay); Moinuddin Harris (Ind.), (Gr. Bombay); Dhanaji Ravaji Patil (Cong.), (Jalgaon); Madhukar Laxman Dandekar

(Ind.), (Kolaba); Sadashivrao A. Shinde (Cong.R.), (Kolhapur); Rikhabchand K. Sharma (Cong.), (Nagpur); Moolchand Gothi (B.K.D.), (Nasik); Sahebrao Hangaregar (Cong.R.), (Osmanabad) and (Bhir); Manikrao Mahakse (Cong.R.), D. Deshmukh (Cong.), (Parbhani) and (Nanded); Sambajirao Kakadi (Cong.-O), (Poona); Tukaram K. Shetye (Cong.), (Ratnagari); Dhulappa B. Navale (Cong.), (Sangli) and (Satura); Manikrao P. Mangudkar (Cong.), (Sholapur); Zumberlal M. Kalantri (Cong.), (Thana); Deorao Anandrao Chaudhary (Cong.), (Wardha) and (Yeotmal).

Elected by the Legislative Assembly (30): Ishavar N. Bhosikar (Cong.); Govindrao Bapurao Patil (Cong.); Govindrao Punjaji Buchake (Cong.); John M. Coelho (Cong.); Sardar Pratap Singh Laxmidas (Cong.); Luxmanrao Shankarrao Deshmukh (Cong.), Ramkrishna S. Gavai (Rep.); Haribhau Purhaji Gole (Cong.); Vithalrao Ganpatrao Hande (P. & W.); Appasaheb Ramchandra Jadhav (Cong.); Jethamal Kisanlal (Cong.); Jagannath N. Korpe (Cong.); Anandiram Modiram Kumath (Cong.); Madhav P. Limaye (P.S.P.); Sardar Pratapsingh Laxmidas (Cong.); Ram Krishna Meghe (Cong.); Panditrao B. More (Cong.); Vithal'S. Page (Cong.); Bajirao Nana Patil (Cong.); Govindrao Bapurao Patil (Cong.); Madhav Gotu Patil (Cong.); Pandharinath Vithoba Patil (Cong.); Vishvanath C. Pawar (Ind.); Ramkrishna Paikuji Samartha (Cong.);

Bhaurao V. Shende (Cong.); Bhausaheb Laxmanrao Shirole (Cong.); Smt. Ashatai M. Tale (Cong.); Dattatraya Balkrishna Tamhane (P.S.P.); Maheshwar Vishnu Thakur (Cong.); Sambhaj Marutirao Thorat (Cong.); Prabhakar Balwant Vaidya (C.P.I.); Kisan Mahadeo Veer (Cong.).

Teachers' Constituency (7): Jagannath Ganesh Bhawe (R.L.A.), (Gr. Bombay); Kamalakar W. Desai, (R.L.A.), (Gr. Bombay); Mukund T. Kulkarni (R.L.A.), (Gr. Bombay); Shankar L. Ogle (Ind.), (Gr. Bombay); Mahadeo N. Anjikar (Ind.) (Vidarbha); Haribhau Sakharamji Hatwar (Ind.), (Vidarbha); Nagarao Balkrishna Sapate (Ind.), (Vidarbha).

Graduates' Constituency (7): Dr. Vasantkumar R. Pandit (J.S.), (Gr. Bombay); Prof. M. R. Dandavate (P.S.P.), (Gr. Bombay); Uttamrao Laxman Patil (J.S.), (Maharashtra); Ganesh P. Pradhan (P.S.P.), (Maharashtra); Bachhara; Shyamlal Byas (J.S.), (Vidarbha); Ramjiwan F. Choudhary (J.S.), (Vidarbha); V. G. Deshpande (J.S.), (Vidarbha).

Nominated (12): Smt. Sevigne G. P. Athaide (Ind.); Chandrashekhar N. Bajpai (Cong.); Charudatta Chaturbhai Shah (Cong.); Smt. Maniben Nanubhai Desai (Cong.); Kumari Shantabai Dhanaji Dani (Rep.); Narayan W. Karwade (Cong.); Salimuddin Hamiduddin Kazi (Cong.); Narhar W. Limaye (Cong.); G. D. Madgulkar (Cong.); Ratanlal Mohanlal (Cong.); Tushar Pandurang Pawar (Cong.); Damodar Tatyaba Rupawate (Rep.).

#### MYSORE LEGISLATIVE ASSEMBLY

No. of Seats 217; S.C.: 29; S.T.: 2.

An estimate of party position is given below: Congress 131; Ind. 25; P.S.P. 23; Swatantra 14; Janata Paksha 10; S.S.P. 5; Jana Sangh 4; C.P.I. 2; L.S.S. 1; R.P.I. 1; Vacant (Nominee Seat) 1; Total 217.

Speaker: S. D. Kothavale; Dy. Speaker: D. Manjunath.

N. S. Patil (Cong.), (Afzalpur); Digambara Rao B. Kalmankar (P.S.P.), (Aland); R. Muniswamaiah (S.C.) (Cong.), (Anekal); D. S. Nadkarni (P.S.P.), (Ankola); A. R. Panchagavi (Cong.), (Arbhavi); H. N. Nanje Gowda (Swa.), (Arkalagud); G. Channabasappa (Cong.), (Arsikere); D. B. Pawar (Cong.), (Athani); Manikrao Patil (Cong.), (Aurad); K. M. Pattanshetti (Ind.), (Badami); B. T. Murnal (Cong.), (Bagalkot); A. (Janatha Paksha), (Basavangudi); Sidramappa Khoba (Cong.), (Basavakalyan); B. B. Sayanak (Ind.), (Belgaum); V. Nagappa (Swa.), (Bellary); K. Chidananda (Cong.), (Belthangady); S. H. Puttaranganath (S.C.), (Swa.), (Belur); E. Narayana Gowda (Cong.), (Bethamangala); Abdul Khuddus Anwar (P.S.P.), (Bhadravati); S. Bhimanna (Cong.), (Bhalki); G. Duggappa (S.C.), (Janata Paksha), (Bharamasagara); M. A. Amalorpavam (Cong.), (Bharathynagar); M. M. Jalisatgi (P.S.P.), (Bhatkal); G. Chandrakanth (J.S.), (Bidar); B. M. Patil (Cong.), (Bijapur); R. M. Desai (Cong.), (Bilgi); D. M. Siddaiah (Cong.), (Biligere); M. Mallappa (Janata Paksha), (Birur); S. Jayaprakash Shetty (Swa.), (Brahmawar); M. G. Banakar (P. S. P.), (Byadagi); B. L. Gowda (Cong.), (Challakere); S. Puttaswamy (Janatha Paksha), (Chamarajanagar); R. Dayananda Sagar (Cong.), (Chamarajpet); K. Puttaswamy (Cong.), (Chamundeswari); N. G. Halappa (S.S.P.), (Channagiri); T. V. Krishnappa (P.S.P.), (Channapatna); C. M. S. Sastry (P.S.P.), (Chickmagalur); C. K. Rajaiah Shetty (P.S.P.), (Chicknaya-

kanahalli); Vital Nagaraj (Ind.), (Chickpet); K. M. Puttaswamy (Cong.), (Chikaballapur); B. S. Soudagar (S.C.), (Cong.), (Chikodi); Veerendra Patil (Cong.), (Chincholi); T. K. Gangi Reddy (C.P.I.-M.), (Chintamani); S. Rudrappa (Cong.), (Chitapur); H. C. Boraiah (Cong.), (Chitadurga); Smt. Winnifred F. Fernandes (P.S.P.), (Coondapur); Kondajji Basappa (Cong.), (Dava-(P.S.P.), (Coonaapur); Kondajji Basappa (Cong.), (Davanagere); Sadasivappa Patil (Ind.), (Deodurg); D. S. Gowdh (Cong.), (Devanakally); K. M. Dasankop (Cong.), (Dharwar); S. V. Agnihotri (Cong.), (Dharwar Rural); G. Rame Gowda (Ind.), (Doddaballapura); T. R. Shamanna (Janata Paksha), (Fort); K. H. Patil (Janata Paksha), (Gadag); Smt. Nagarathnamma Hiremath (Cong.), (Gandhinagar); B. Nanjappa (Cong.), (Gandasi); Thiremeals Dava Para (Cong.), (Gandasi); J. S. Naile (Cong.), (Ganahinagar); B. Nahappa (Cong.), (Ganadas); Thirumala Deva Raya (Cong.), (Gangavathi); L. S. Naik (S.T.), (Cong.), (Gokak); R. N. Lakshmipathy (Cong.), (Gowribidanur); Chikke Gowda Patil (Cong.), (Gubbi); Mohamed Ali (Cong.), (Gulbarga); M. R. Pattanshetty (Cong.), (Guledgud); Ganga Bovi (S.C.), (P.S.P.), (Gulur); Smt. K. S. Nagarathanamma (Cong.), (Gundlupet); Narasappa Yenkappa (S.C.), (Cong.), (Gurumitkal); N. M. Kotrabasaiah Sogi (Cong.), (Hadagalli); Ramakrishna Hegde (Cong.), (Haliyal); G. N. Desai (Cong.), (Hangal); B. H. Yenka Nayak (S.C.), (Cong.), (Harapanahalli); H. Siddaveerappa (Janata Paksha), (Harihar); H. B. Jawalanaiah (Swa.), (Hassan); Basavaraj Magavi (Cong.), (Haveri); R. Peeranna (S.C.), (Cong.), (Heggadadevanakote); G. B. Shankar Rao (Cong.), (Hirekerur); D. Manjunath (S.C.), (Cong.), (Hiriyur); B. Parameshwarappa (Janata Paksha), (Holalkere); H. D. Devegowda (Cong.). (Holenarasipur); D. Parameswarappa (Cong.), (Honnali); H. Nagappa (Cong.), (Honur); M. Ramappa (Cong.), (Hosadurga); I. Somashekarappa (Cong.), (Hosanagar); N. Chicke Gowda (Cong.), (Hoskole); B. Satyanarayana Singh (Cong.R.), (Hospet); Wali Rachappa Gangappa (Cong.), (Hubli); M. R. Patil (Cong.), (Hubli Rural); Patil Satyagowda, Satagowda (Cong.), (Hukkeri); N. Hutchmasty Gowda (Ind.), (Huliyurdurga); Prabhurao Dhondiba Jagadale (S.C.), (Cong.), (Hulsoor); V. N. Patil (C.P.I.), (Humnabad); G. P. Nanjayyamath (Cong.-R.), (Humgund); D. Devaraja Urs (Cong.), (Hunsur); G. N. Patil

(Cong.), (Huvinahippargi); M. K. Surpur (Swa.), (Indi); J. R. Halaswamy (Cong.), (Jagalur); Vacant, (Jamkhandi); Sharanagauda Inamdar (Swa.), (Jewargi); K. M. Thammiah (Ind.), (Kadur); Smt. Champabai Bogle (S.C.), (Cong.), (Kagwad); F. S. Patil (Cong.), (Kalghatqi); M. Kalyan Rao (Cong.), (Kalgi); B. Ganganna (Cong.), (Kallambella); Smt. Nagamma Seshappa (S.C.), Cong.), (Kalmala); Smt. Lalithabai Chandrasekhar (Cong.), (Kamalapur); K. G. Thimme Gowda (Cong.), (Kana-(Ramana); Rola Raghurama Shetty (J.S.), (Karkal); B. P. Kadam (Ind.), (Karwar); B. Bhaskara Shetty (P.S.P.), (Kaup); N. B. Sirdesai (Ind.), (Khanapur); G. Made Gowda (Cong.), (Kirugavalu); pur); G. Made Gowda (Cong.), (Kirugavalu); B. M. Sanikop (Cong.), (Kittur); P. Venkatagiriyappa (Ind.), (Kolar); S. R. Shanmugam (S.C.), (Cong.), (Kolar Gold Field); B. Basavaiah (S.C.), (Cong.), (Kollegal); Virupakshagouda B. Malipattil (Cong.), (Koppal); T. S. Sivanna (Cong.), (Koratagere); S. Channiah (Janata Paksha), (Krishnaraja); M. Basavaraju (Cong.), (Krishnarajanagar); M. K. Bomme Gowda (Janata Paksha), (Krishnarajpet); M. M. J. Sadyojatha (Cong.), (Kudligi); Solur Siddappa (Cong.), (Kudur); R. M. Hegde (P.S.P.), (Kumta); S. R. Bommai (Cong.), (Kundgol); G. Thammanna (Cong.), (Kunigal); Allum Karibasappa (Cong.), (Kurugodu); E. Pundaleekappa (Cong.), (Kushtagi); K. Sanganagowda (Cong.), (Lingsugar); M. Manche Gowda (Cong.), (Maddur); G. T. Govinda Reddy (Cong.), (Madhugiri); C. R. Range Gowda (P.S.P.), (Magadi); M. Mallikarjuna Swamy (S.C.), (Cong.), (Malavalli); M. S. Krishnan (C.P.I.), (Malleswaram); H. C. Linga Reddy (Cong.), (Malur); Nagappa (Cong.), (Mandya); M. Srinivas Nayak (Cong.), (Mangalore—I); B. M. Idinabba (Cong.), (Mangalore—II); Smt. Basavarajeswari (Cong.), (Manvi); A. P. Appanna (Cong.), (Mercara); S. H. Basanna (Cong.), (Molakalmuru); Ratnakumar Kattemar (Swa.), (Mudabidri); S. M. Guraddi (Cong.), (Muddebihal); K. P. Nadagauda (Swa.), (Mudhol); K. H. Ranganath (S.C.), (P.S.P.), (Mudigere); T. Channaiah (S.C.), (Cong.), (Mulbagal); Dr. C. M. Churchihalmath (Cong.), (Mundargi); K. Singari Gowda (Cong.), (Nagamangola); L. Srikantaiah (Ind.), (Nanjangud); Azeez Sait (S.S.P.), (Narasimharaja); R. V. Doddamani (S.C.), (Cong.), (Nargund); R. M. Patil (Cong.), (Navalgund); Alur Hanumanthappa (Cong.), (Nelamangala); G. K.

Manvi (Ind.), (Nipani); N. A. Channe Gowda (Ind.), (Pandavapura); H. V. Koujalgi (Cong.), (Parasgad); P. Anjinappa (S.C.), (Cong.), (Pavagada); H. M. Channabasappa (Ind.), (Periyapatna); B. Vithaldas Shetty (Cong.), (Puttur); V. L. Patil (Cong.), (Raibagh); M. Nagappa (S.S.P.), (Raichur); B. R. Dhananjeya (Ind.), (Ramanagaram); Smt. Saradavva M. Pattan (Cong.), (Ramdurg); N. L. Bellad (P.S.P.), (Ranibennur); A. J. Doddameti (Cong.), (Ron); Patil Shidagouda Shivagouda (Cong.), (Sadalaga); K. H. Srinivasa (Cong.), (Sagar); K. P. Chikke Gowda (Swa.), (Sakalespur); M. Y. Ghorpade (Cong.), (Sandur); S. D. Kothavale (Cong.), (Sandur) keswar); B. Rachaiah (S.C.), (Cong.), (Santhemaranahalli); H. Puttadasa (S.C.), (Ind.), (Sathnur); J. P. Sarwesh (S.C.), (Ind.), (Serum); Bapugouda (Cong.), (Shahapur); A Nanjappa (Cong.), (Shanthinagar); S. Nijalingappa (Cong.), (Shiggaon); G. Basavannappa (S.C.), (Cong.), (Shikaripura); A. R. Badrinarayan (Cong.), (Shimoga); Siddiah Kashimath (Swa.), (Shirhatti); Hamid Shah (Cong.-R.), (Shivajinagar); Raja Pid Naik (Cong.), (Shorapur); S. Sivappa (P.S.P.) (Shravanabelagola); C. M. Desai (Cong.), (Sindgi); G. Amaregowda (L.S.S.), (Sindhnoor); B. Venkatarayappa (Cong.), (Sidlaghatta); B. N. Rama Gowda (Cong.), (Sira); M. H. Jayaprakash Narayan (S.C.), (P.S.P.), (Sirsi); M. Daddanagoud (Cong.), (Siruguppa); G. M. Manjanathaiah (Swa.), (Somvarpet); S. Bangarappa (S.S.P.) (Sorab); K. N. Veerappa Gowda (Cong.), (Sringeri); B. L. Narayana Swamy (Ind.), (Srinivasapur); B. Daddabore Gowda (Ind.), (Srirangapatna); A. Ramachandra (S.C.), (Swa.), (Sullya); P. V. Aithala (P.S.P.), (Surathkal); M. Rajasekhara Murthy (Cong.), (T. Narasipur); Hanji Shivanna (P.S.P.), (Tarikere); S. Gopala Gowda (S.S.P.), (Thirthahalli); S. B. Vastrad (Cong.), (Tikota); V. L. Shivappa (P.S.P.), (Tiptur); B. P. Gangadhar (P.S.P.), (Thumkur); M. N. Ramanna (Cong.), (Turuvekere); P. B. Nandihali (Ind.), (Uchagaon); S. K. Amin (Cong.), (Udipi); Y. Ramakrishan (S.C.), (Cong.), (Uttarahalli); K. Prabhakar (S.C.), (Cong.), (Varthur); G. Narayana Gowda (Cong.), (Vemagal); N. Lokayya Naik (S.T.), (J.S.), (Virajpat); K. R. Nada Gonda (Cong.), (Yadgir); B. Narayanaswamappa (Ind.), (Yelahanka); Chanabasangouda Hanamanthagouda Patil (Cong.), (Yelburga); Nominee: Mrs. Sheila Irani.

# MYSORE LEGISLATIVE COUNCIL

Chairman: K. K. Shetty; Dy. Chairman: M. Madiah; Leadar of the House: K. V. Shankara Gowda; Secretary: Te. Hanumanthappa.

Party position: Congress 49; P.S.P. 3; Independent 7; Jan Sangh 2; S.S.P. 1; Swa. 1; Total 63.

Elected by the Legislative Assembly (21): K. Kannan (Cong.); K. S. Channappa (Cong.); C. S. Balakrishna Gowda (Ind.); S. C. Kubasad (Cong.); D. Munichinnappa (Ind.); M. Madiah (Cong.); R. G. Dubey (Cong.); Y. R. Parameshwappa (S.S.P.); S.S. Narayana Murthy (Cong.); R. B. Naik (Cong.); Smt. Leelamma Shivananjappa (Cong.); G. Venkatai Gowda (Ind.); D. Rajagopal (Ind.); B. Rangappa (Cong.); M. V. Rama Rao (Cong.); T. M. K. Peer Sab (Cong.); Javaraj Hirachand Shah (Cong.); K. Kanthappa Shetty (Cong.); M. T. Sreekantiah (Ind.); A. H. Sivananda Swamy (P.S.P.); V. Venkatappa (Cong.).

Local Authorities' Constituency (21): M. Krishnappa (Cong.), (Bangalore); Channabyre Gowda (Swa.), (Bangalore); B. S. Aragavi (Cong.), (Belgaum); G. B. Patil (Cong.), (Belgaum); K. Channabasavana Gauda (Cong.), (Bellary); M. M. Kheny (Ind.), (Bidar); P. M. Nadgouda (Cong.), (Bijapur); Channayya Odeyar (P.S.P.), (Chitradurga);

G. V. Hallikeri (Cong.), (Dharwar); V. S. Hiregouder (Cong.), (Dharwar); A. V. Patil (Ind.), (Gulbarga); K. Lakkappa (Cong.), (Hassan); M. C. Anjaneya Reddy (Cong.), (Kolar); K. V. Shankara Gowda (Cong.), (Mandya); H. K. Shivarudrappa (Cong.), (Mysore-cum-Coorg); M. Linganna (Cong.), (Mysore-cum-Coorg); S. D. Gaonkar (Cong.), (North Kanara); Viswanatha Swamy (Cong.), (Raichur); K. T. Shamaiah Gowda (Cong.), (Shimoga-cum-Chikmagalur); K. Suryanarayana Adiga (Cong.), (South Kanara); A. S. Nandeesh (Cong.), (Tumkur).

Graduates Constituency (6): G. V. Anjanappa (P.S.P.), (Bangalore); Smt. M. R. Lakshamma (Cong.), (Bangalore); Y. S. Patil (J.S.), (Mysore Central); S. C. Edke (Cong.), (Mysore North); M. V. Venkatappa (Cong.), (Mysore South-East); A. K. Subbiah (J.S.), (Mysore South-West).

Teachers' Constituency (6): M. B. Kulkarni (Cong.), (Mysore North Central); K. R. Nitturkar (Cong.), (Mysore North East); M. G. Handral (Ind.), (Mysore North West); S. Mukunda Rao (Cong.), (Mysore South Central); S. P. Rajanna (Cong.), (Mysore South East); C. Bandi Gowda (Cong.), (Mysore South West).

Nominated (9): K. Doomappa (Cong.); Akbar Sait A. Kayum (Cong.); Smt. Abbasia Begum Mecci (Cong.); A. B. Patel (Cong.); M. L. Vasudeva Murthy (Cong.);

Dharmaprakasha L. S. V. Rao (Cong.); Tej Singh Rathod (Cong.); Basavaraj Kattimani (Cong.); K. Subba Rao (Cong.).

#### NAGALAND LEGISLATIVE ASSEMBLY

Seats: 52; Elected: 40; Nominated 12.

Speaker: K. Shikhu Sema; Dy. Speaker K. V. Keditsu; Secretary: H. G. Paranjpe.

Party Position: Nagaland Nationalist Organisation 43; United Front of Nagaland 9.

Hokishe Sema (NNO), (Akuluto); Zulutemba (NNO), (Alongtaki); Shurhozelie (UFN), (Angami-North I); K. Vitsore Keditsu (NNO), (Angami-North II); Vitsoni (UFN), (Angami-South I); Hosal Kin (NNO), (Angami-South II); Thepfulo Nakhro (NNO), (Angami-West); R. C. Chiten Jamir (NNO), (Arkakong); Kiyekhu Shikhu (NNO), (Atoizu); Bendangangshi (UFN), (Aunglenden); Tsenlamo Kikon (NNO), (Bhandari); Vamuzo (UFN), (Chazouha I); Punuhu (NNO), (Chazouha II); P. Monokiu Yimchunger (NNO), (Chessore, Tuensang); Wetzulo (NNO), (Chizami); M. Tsubongse Sangtam (NNO), (Chungtore-Tuensang); Debalal Mech (NNO), (Dimapur); Gobinda Ch. Paira (NNO), (Dimapur); Langkam Kuki (NNO), (Ghaspani); M. Koramoa Jamir (NNO), (Impur); I. Arienba (NNO), (Jangpetkong); John Bosco Jasokie (NNO), (Kohima Town); Tajen Ao (UFN), (Koridang); Longayiem Konyak (NNO),

(Tuensang); I. L. Chingmak Chang (NNO), (Tuensang); Marhuto (NNO), (Meluri); Nsemo Ovung (UFN), (Moilan-Wozhuro); Assamwati (NNO), (Mokokchung Town); Tingmei Konyak (NNO), (Tuensang); Takomeren (UFN), (Mongoya); N. Zhetovi Sema (NNO), (Tuensang); T. Haralu (UFN), (Peren); Weprenyi Kapfo (NNO), (Pfutsero); Yevehe Lohe (NNO), (Phek); Hosheto Sema (NNO), (Pughoboto); Mhondamo Kithan (NNO), (Sanis); Yeshito (NNO), (Satakha); Kichingse Sangtam (NNO), (Tuensang); Chingwang Talen Konyak (NNO), (Shiyong-Tuensang); Akum Imlong (NNO), (Tuensang); Nihovi Sema (NNO), (Suruhoto); Tochi Hanso (NNO), (Tuensang); Thanglong Konyak (NNO), (Tuensang); Riga Thong (NNO), (Tseminyi); N. Azu Newmai (NNO), (Tening); I. Merachiba (NNO), (Tuli); T. A. Ngullie (NNO), (Tydi-Longchum); N. L. Odyuo (NNO), (Wokha); Oditemba Phom (NNO), (Yachem-Tuensang); Sentichuba (UFN), (Yisemyong); Tokheho Sema (NNO), (Zunheboto); Ihezhe Sema (NNO), (Aghunuto).

N. N. O: Nagaland Nationalist Organisation; U.F.N; United Front of Nagaland.

#### ORISSA LEGISLATIVE ASSEMBLY

Number of Constituencies: 140; Number of Seats: 140; Reserved for Scheduled Castes: 22; Scheduled Tribes: 34; Speaker: Nanda Kishore Misra; Deputy Speaker: Harihar Bahinipati.

Party Position: Congress 31; Swatantra 49; Jana Congress 25; Praja Socialist Party 21; Communist 7; S.S.P. 1; Independent 5; Communist (Marx.) 1.

Total number of electorates: 10,884,695; Bhubanananda Jena (S.C.) (Jana Cong.), (Anandapur); Kumud Chandra Singh (J.C.), (Angul); Harihar Das (C.P.I.), (Aska); Surendra Pradhan (Ind.), (Athamallik); Radhanath Rath (Ind.), (Athgarh); Dibakar Nath Sarma (Cong.), (Aul); Sunaram Soren (S.T.) (J.C.), (Bahalda); Prasannakumar Dash (P.S.P.), (Baisinga); Rabindra Mohan Das (P.S.P.), (Balasore); Baikunthanath Mohanty (P.S.P.), (Balikuda); Harihar Bhoi (S.C.) (J.C.), (Balipatna); Naresh Pradhan (S.T.) (Swa.), (Balliguda); Jogesh Chandra Rout (Ind.), (Banki); Radhamohan Nayak (S.T.) (Swa.), (Bangriposi); Raghunath Misra (Cong.), (Banpur); Bharat Chandra Hota (Cong.), (Baragarh); Pratap Chandra Patnaik (J.C.), (Baramba); Jagannath Das (P.S.P.), (Barchana); Santosh Kumar Sahu (Cong.), (Baripada); Chintamani Jena (Cong.), (Basta); Harekrushna Mahtab (J.C.), (Basudebpur); Gangadhar Paikray (C.P.I.), (Begunia); Binayak Acharya (Cong.), (Berhampur); Nityananda Mahapatra (J.C.), (Bhadrak); Deenabandhu Behera (Cong.), (Bhanjanagar); Smt. Saraswati Pradhan (Cong.), (Bhatli); Dayanidhi Naik (S.C.) (Swa.), (Bhawanipatna); Pyari Mohan Das (P.S.P.), (Bhograi); Smt. Subhadra Mahtab (Jan. Cong.), (Bhubaneswar); Mohan Nag (S.C.) (Cong.), (Bijepur); Baishnab Charan Mallick (S.C.) (P.S.P.), (Binjharpur); Narasingha Charan Misra (Swa.), (Binka); Krushna Chandra Naik (S.T.), (Swa.), (Bisra); Biswanath Choudhury (S.T.) (Swa.), (Bissam-Cuttack); R. N. Singh Deo (Swa.), (Bolangir); Hemendra Prasad Mahapatra (S.T.) (Swa.), (Bonai); Himansu Sekhar Padhi (J.C.), (Boudh); Brajamohan Mohanty (Cong.), (Brahmagiri); Prasannakumar Panda (C.P.I.), (Brajarajnagar); Kshetra

Mohan Naik (S.T.) (Swa.), (Champua); Manmohan Das (S.C.) (J.C.), (Chandbali); Lakshman Mahapatra (C.P.I.), (Chatrapur); Nabaghana Nayak (S.C.) (J.C.), (Chhendipada); Dibakar Patnaik (Cong.), (Chikiti); Akulananda Behera (P.S.P.), (Choudwar); Biren Mitra (Cong.), (Cuttack City); Sukadev Jena (S.C.) (J.C.), (Cuttack Sadar); Dambaru Majhi (S.T.) (Swa.), (Dabugam); Bhabagrahi Nayak (S.C.) (Swa.), (Daspalla); Bhanuganga Tribhuban Deb (Swa.), (Deogarh); Smt. Satyabhama Dei (J.C.), (Dhamanagar); Paramananda Mohanty (P.S.P.), (Dharmsala); L. D. Majhi (S.C.) (Swa.), (Dharmagarh); Rajamata Ratnaprava Devi (Swa.), (Dhenkanal); Mohan Nayak (S.C.) (Cong.), (Dura); Lokanath Choudhury (C.P.I.), (Erasama); Haladhar Misra (Swa.), (Gondia); Muralidhar Kanungo (J.C.), (Govindpur); Bhagirathi Gumango (S.T.) (Cong.), (Gunupur); Brundaban Nayak (Cong.), (Hinjili); Udayanath Naik (S.C.) (Cong.), (Jagannath Prasad); K. C. Mallick (S.C.) (P.S.P.), (Jagatsinghpur); Prasannakumar Paul (P.S.P.), (Jaleswar); Santanu Kumar Das (S.C.) (J.C.), (Jajpur East); Prafulla C. Ghadei (J.C.), (Jajpur West); Durga Charan Nayak (S.T.) (Swa.), (Jashipur); Pratap Narayan Singh Deo (Swa.), (Jeypore); Murariprasad Misra (Swa.), (Jharsuguda); Maheswar Nayak (Swa.), (Junagarh); Gatikrishna Swain (C.P.I.), (Kakatpur); Brundaban Tripathy (Swa.), (Kamakhyanagar); Loknath Rai (S.C.) (Swa.), (Kantabanji); Prafullakumar Das (S.T.) (Swa.), (Karanjia); Dandapani Swain (C.P.I.), (Kavisuryanagar); Govinda Munda (S.T.) (Swa.), (Keonjhar); S. K. Kanungo (P.S.P.), (Kendrapara); Bhagaban Bhoi (Swa.), (Kesinga); Narayan Sahu (S.S.P.), (Khallikote); H. S. B. Mardaraj Roy (Cong.), (Khandapara); Anup Singh Deo (Cong.), (Khariar); Harachand Hansada (S.T.) (P.S.P.), (Khariar); Harachand Hansada (S.T.) (P.S.P.), (Khariar); Vacant (Khurda); Banamali Maharana (P.S.P.), (Kodala); Jhitru Naik (S.T.) (Swa.), (Kodinga); Raghunath Praharaj (Swa.), (Koksara); Suryanarayan Mahji (S.T.) (Cong.), (Kotpad); Kanhai Singha (S.T.) (Swa.), (Kuchinda); Lal Rajendra Singh (S.T.) (Swa.), (Laikera); Nandakishore Misra (Swa.), (Loisingha); Birajaprasad Ray (P.S.P.), (Mahanga);

Gangadhar Madi (S.T.) (Cong.), (Malkangiri); Birendra (Swa.), (Melchhamunda); Tareni Sahu Sardhara (S.T.) (Cong.), (Mohana); Sakila Soren (S.T.) (P.S.P.), (Muruda); Malu Santa (S.T.) (Cong.), (Nandapur); Bidika Mallanna (S.T.) (Swa.), (Narayanpatna); Anchal Majhi (S.T.) (Swa.), (Narla); Onkar Singh (S.T.) (Cong.), (Nawapara); Sadasiba Tripathy (Cong.), (Nawarangpur); Achutananda Mohanty (Ind.), (Nayagarh); Banamali Das (C.P.I.M.), (Nilgiri); Nilamani Sitha (S.C.) (J.C.), (Nimapara); Bira Bikramaditya Singh Bariha (J.C.), (Padampur); Pabitra Mohan Pradhan (J.C.), (Pat Lahara); Nallakuruma Naikulu (Cong.), (Parlakimedi); Chakradhar Satpathy (P.S.P.), (Patkura); Biswanath Malik (S.C.) (P.S.P.), (Patamundai); Ramaray Munda (S.T.) (Swa.), (Patna); Ainthu Sahu (Swa.), (Patnagarh); Banamali Patnaik (J.C.), (Pipili); Barada Prasanna Kahar (S.T.) (Swa.), (*Phulabani*); Harihar Bahinipati (P.S.P.), (*Puri*); Bhikari Suna (S.C.) (Swa.), (*Rairakhole*); K. C. Majhi (S.T.) (Swa), (Rairangpur); Premchand Bhagat (S.T.) (Swa.), (Rajgangpur); S. N. Bhanj Deo (Ind.), (Rajnagar); Rajaballabh Misra (Swa.), (Ramachandrapur); Arjun Singh (S.T.) (Cong.), (Ramagiri); B. C. Singh Deo-Bajradhar Narendra Mahapatra (Cong.), (Ranpur); Anantaram Majhi (S.T.) (Cong.), (Rayagada); Rajkishore Samantaray (P.S.P.), (Rourkela); R. C. Singh Bhoi (Swa.). (Saintala); Surendranath Patnaik (J.C.), (Salepur); Banamali Babu (Cong.), (Sambalpur); Gangadhar Mahapatra (Cong.), (Satyabadi); Utsab Charan Jena (S.C.) (P.S.P.), (Simulia); Nilambar Raiguru (Swa.), (Sonepur); Haraprasad Mahapatra (Swa.), (Soro); Smt. Anandamanjari Debi (J.C.), (Sukinda); Harihar Patel (Swa.). (Sundergarh); A. N. Singh Deo (Swa.), (Suruda); Gangadhar Pradhan (S.T.) (Swa.), (Talasara); K. C. Behera (S.C.) (J.C.), (Talcher); Bagirathi Mahapatra (S.T.) (Swa.), (Telkoi); Nishamani Khuntia (P.S.P.), (Tirtol); Achyutananda Mahananda (S.C.) (Swa.), (Titilagarh); Radhamohan Misra (Swa.), (Tusra); Manmohan Tudu (S.T.) (J.C.), (Udala); Gopal Pradhan (S.T.) (Swa.), (Udayagiri); Rabi Singh Majhi (S.T.) (Cong.), (Umerkote).

#### PONDICHERRY LEGISLATIVE ASSEMBLY

No. of Constituencies: 30 (Pondicherry 20, Karikal 7, Mahe 2, Yanam 1).

Speaker: S. Perumal; Dy. Speaker: Marie Lourdes Selvaradjou.

An estimate of party position is as follows: D.M.K. 15; Congress 10; C.P.I. 3; Independent 2.

S. Perumal (D.M.K.), (Ariancoupom); K. Krishnasamy (S.C.) (Cong.), (Bahour); C. M. Achraff (D.M.K.), (Bussy); M. O. H. Farock (D.M.K.), (Calapeth); P. Ansari Doraisamy (Cong.), (Cassicade); Balaya alias Balakrishnan (S.C.) (Cong.), (Cotchery); G. Perumal Raja (D.M.K.), (Couroussoucoupom); K. R. Subramanya Padayachi (Cong.), (Courouvinattam); Smt. M. Veerammal (S.C.) (Cong.), (Embalam); V. Pandarinathan (D.M.K.), (Grand

Aldee); M. Jambulingam (Cong.), (Karikal North); Marie Lourdes Selvaradjou (D.M.K.), (Karikal South); I. K. Kumaran (Ind.), (Mahe); S. M. Subbarayan (D.M.K.), (Mannadipeth); V. Kailasa Subbiah (C.P.I.), (Modeliarpeth); K. Murugaiyan (D.M.K.), (Mouttalpeth); P. Shanmugam (Cong.), (Nedouncadou); N. Ranganathan (C.P.I.); (Nellitope); S. Ramassamy (D.M.K.), (Naravy); D. Ramachandran (D.M.K.), (Nettapacom); S. Muthu (D.M.K.), (Oulgaret); S. Govindarajalu (D.M.K.), (Oupalom); V. Nagarathinam (S.C.) (Cong.), (Oussoudou); V. N. Purushothaman (Cong.), (Pallour); N. Gurusamy (C.P.I.), (Pondousaram); D. Kantharaj (Cong.), (Raj Nivas); R. Supprayalu Naicker (D.M.K.), (Tirnoular); M. Thangavelu (S.C.) (D.M.K.), (Tiroubouvane); S. Arumugam (D.M.K.), (Villenour); Komichetty P. Varapurasada Rao Naidu (Ind.), (Yanam).

#### PUNIAB LEGISLATIVE ASSEMBLY

Strength 104; S.C. 23. Total number of electorates 6,691,885.

Party-wise estimate is: Congress 28; Akali Dal 56; Jan Sangh 8; Communist 4; Communist (Marxist) 2; P.S.P. 1; Independent 1; Swatantra 1; Samyukta Socialist 2; Shiromani Akali Dal 1; Vacant 2.

Speaker: Sardar Darbara Singh; Dy. Speaker: Brig. B. S. Bajwa.

Satya Dev (J.S.), (Abohar); Kulwant Singh (C.P.I.), (Adampur); Major Harinder Singh (Cong.), (Ajnala); Dalip Singh (S.C.) (A.D.), (Amloh); Balaram Das Tandon (J.S.), (Amritsar Central); Gian Chand Kharbanda (Cong.), (Amritsar East); Kirpal Singh (P.S.P.); (Amritsar South); Satyapal Dang (C.P.I.), (Amritsar West); Sadhu Singh (A.D.), (Anandpur); Darshan Singh Jhabhal (S.C.) (C.P.I.-M.), (Attari); Tej Singh (A.D.), (Baghapurana); Jagat Ram (S.C.) (Cong.), (Banga); Tulsi Ram Chouhan (Cong.), (Balachaur); Balbir Singh (A.D.), (Banur); Umrao Singh (Cong.), (Bara Pind); Surjit Singh (A.D.), (Barnala); Brig. Bikramjit Singh Bajwa (J.S.), (Batala); Hari Singh (A.D.), (Beas); Bachan Singh Pakho (S.C.) (Cong.), (Bhadaur); Teja Singh Dhillon (A.D.), (Bhatinda); Parshotam Singh (A.D.), (Budhlada); Basant Singh (Swa.), (Dakala); Basant Singh (S.C.) (A.D.), (Dakha); Devinder Singh (A.D.), (Dasuya); Hardit Singh (C.P.I.-M.), (Dhanaula); S. S. Bassi (A.D.), (Dharamkot); Pritam Singh

(A.D.), (Dhariwal); Sant Singh (A.D.), (Dhuri); Gian Chand (S.C.) (J.S.), (Dina Nagar); Dr. Bhagat Singh (S.C.) (A.D.), (Faridkot); Santokh Singh (Cong.), (Fategarh); Radha Kishan (A.D.), (Fazilka); Balmukand Sharma (J.S.), (Ferozepur); Mohinder Singh Sayanwala (A.D.), (Ferozepur Cantt.); Capt. Rattan Singh (Cong.), (Garhshanker); Parkash Singh Badal (A.D.), (Giddarbaha); Mohinder Singh Babehali (A.D.), (Gurdaspur); Lachhman Singh (Cong.), (Guruhar Sahai); Balbir Singh (S.S.P.), (Hoshiarpur); Nahar Singh (Cong.), (Jagraon); Lajinder Singh (A.D.), (Jalalabad); Darshan Singh K. P. (S.C.) (Cong.), (Jamsher); Tara Singh Layallpuri (S.C.) (A.D.), (Jandiala); Sarup Singh (Cong.), (Jullundur Cantt.); Gurdial Saini (Cong.), (Jullunder North); Vacant (Jullundur South); Bawa Harnam Singh (A.D.), (Kapurthala); Gurbanta Singh (S.C.) (Cong.), (Kartarpur); Mohan Singh Tur (A.D.), (Khadoor Sahib); Naurang Singh (S.C.) (A.D.), (Khanna); Sarjit Singh (A.D.). (Kharar); Harcharan Singh Brar (Cong.), (Kot Kapura); Pratap Singh Kadian (A.D.), (Kum Kalan); Dana Ram (S.C.) (C.P.I), (Lambi); Vacant (Lehra); Sardari Lal Kapur (Cong.), (Ludhiana North); Joginder Pall (Cong.), (Ludhiana South); Kartar Singh (S.C.) (A.D.), (Mahilpur); Sushpal Singh (A.D.), (Majitha); H. H. Nawab Iftikar Mohd. Ali Khan (A.D.), (Malerkotla); Gurmit Singh (A.D.), (Malout); Sant Lakha Singh (A.D.), (Mansa); Rup Lal (S.S.P.), (Moga); Raja Singh (S.C.) (A.D.), (Morinda); Kewal Krishen (Cong.), (Mukerian); Gurdev Singh (S.C.) (A.D.), (Muktsar); Narinder Singh

(Ind.), (Nabha); Darbara Singh (Ind.), (Nakodar); Bam Dev Airy (J.S.), (Nangal); Sunder Singh (S.C.) (Cong.) (Narot Mehra); Hardit Singh (S.C.) (A.D.), (Nathana); Dilbagh Singh (Cong.), (Nawan Shahr); Dalip Singh (S.C.) (A.D.), (Nihal Singhwala); Balwant Singh (A.D.), (Nurmahal); Trilochan Singh (Cong.), (Pakka Kalam); Ram Singh (Cong.), (Pathankot); Ravel Singh (A.D.), (Patiala); Surinder Singh Kairon (A.D.), (Patti); Beant Singh (A.D.), (Payal); Sadhu Ram S.C.) (Cong.), (Phagwara); Surjit Singh Atwal (Cong.), (Phillaur); Babu Singh (C.P.-I.), (Phul); Satnam Singh Bajwa (A.D.), (Qadian); Gurnam Singh (A.D.), (Quila Raipur); Jagdev Singh (A.D.), (Raikot); Jasdev Singh (A.D.), (Raikot); Jasdev Singh (A.D.), (Raikot); Harbans-

lal (J.S.), (Rajpura); Ravi Inder Singh (A.D.), (Ropar); Pritam Singh (S.C.) (A.D.), (Samana); Kapur Singh (A.D.), (Samrala); Gurbaksh Singh (Cong.), (Sangrar); Kirpal Singh (Cong.), (Sardulgarh); Guran Dass Hans (S.C.) (Cong.), (Shamchaurasi); Kundan Singh (S.C.) (A.D.), (Sherpur); Randhir Singh (A.D.), (Sirhind); Karam Singh (A.D.), (Srihargobindpur); Atma Singh (A.D.), (Sultanpur); Gurbachan Singh (A.D.), (Sunam); Ajit Singh (A.D.), (Talwandi Sabo); Dr. Amir Singh Kalkat (Cong.) (Tanda); Manjinder Singh Behla (A.D.) (Tarn Taran); Gurdip Singh (A.D.), (Valtoha); Gurmej Singh (S.C.) (Cong.), (Verka); Mehtab Singh Dhillon (Cong.) (Zira)

#### RAJASTHAN LEGISLATIVE ASSEMBLY

Speaker: Niranchannath Acharya.

Dy. Speaker: Poonam Chand Bisnoi.

An estimate of party position is: Congress 111; Swatantra 28; Jan Sangh 18; Samyukta Socialist Party 7; Communist Party 1; Independents 5; Bharatiya Kranti Dal 11; Vacant Seats 2; (Total 172).

Gama Fataji (Cong.), (Abu (R)); Madho Singh (Cong.), (Ahore); Dr. Amba Lal (J.S.), (Ajmer East); Bhagwan Das Shastri (J.S.), (Ajmer West); Bitthal Prasad (Swa.), (Aklera); R. N. Agarwal (C.P.I.), (Alwar); Sahdev Sharma (Cong.), (Amber); G. L. Vyas (Cong.), (Asind); Ram Charan (Cong.), (Atru (R)); Lalit Singh Sadavad (Cong.), (Badi Sadri); Nathuram (S.T.), (Cong.), (Bagidora (R)); Dheer Singh (Cong.), (Bairath); Prithvi Singh (Swa.), (Bali); Prithwiraj Patel (Cong.), (Bamanwas (R)); Harideo Joshi (Cong.), (Banaswara); V. N. Joshi (Cong.), (Bandikui); Yaswant Singh Naha (Cong.), (Banera); Badri Prasad Gupta (B.K.D.), (Bansur); Devi Dutt Gadia (J.S.), (Baran); Balwant (S.C.) (Cong.), (Bari (R)); Birdhi Chand Jain (Cong.), (Barmer); Kanhaiya Lal (S.C.) (Swa.), (Bassi (R)); M. Behari Lal Goel (S.S.P.). (Bayana); Fateh Singh (Swa.), (Beawar); Hari Singh (Cong.) (Begun); Ami Lal Yadav (Cong.), (Behror); Hans Raj Arya (Cong.), (Bhadra); Nathi Singh (S.S.P.), (Bharatpur); Smt. Laxmikumari (Cong.), (Bhim); R. P. Ladha (Cong.), (Bhilwara); Jas Raj (Cong.), (Bhinai (R)); Aidan Singh (Swa.), (Bhinmal); Parasram Maderna (Cong.), (Bhopalgarh); Gokul Prasad Sharma (Cong.), (Cong.), (Bikaner); Kokui Trasad Sharma (Cong.), (Bikaner); Kaluram Arya (Cong.), (Bilara (R)); B. S. Sharma (Cong.), (Bundi); Prem Singh Sigwi (J.S.), (Chhabra); Rawtharam (B.K.D.), (Chapar (R)); Ramkumar Nandwana (Cong.), (Chithodgarh); Abdul Hadi (Cong.), (Chohtan); Ramkishore Vyas (Cong.), (Chomu); Ratan Lal Roth (Cong.), (Chorasi); Megh Raj (B.K.D.) (Churu); Lachhman Thaniwal (J.S.), (Dag); K. T. Madan Singh (J.S.), (Dantaramgarh); Doonga Ram Rajoria (S.C.) (Swa.), (Dansa (R)); Booliga Ram Rajoria (S.C.) (Swa.), (Dansa (R)); Bujballabh Bohra (J.S.), (Digod); Mathuradas Mathur (Cong.), (Deodavana); Aditendra (S.S.P.), (Deeg); Smt. Gauri Punya (Cong.), (Degana); Daulat Ram (S.C.) (Cong.), (Desuri (R)); Banwari Lal (Cong.), (Dholpur); Suwala (Swa.), (Dudu); M. Layman Singh (Swa.) (Ducangarata), Daulat Ram M. Laxman Singh (Swa.), (Dungarpur); Daulat Ram Saran (B.K.D.), (Durgargarh); Alam Ali Khan (Swa.), (Fatehpur); Mahendra Singh Panwar (Swa.), (Gandhinagar); Prof. Kedar Nath (S.S.P.), (Ganganagar); R. C. Palliwal (Cong.), (Gangapur); Ganesh Lal (S.C.) (Cong.), (Gangrar (R)); Devendra Kumar Mina (S.T.) (Cong.), (Gogunda (R)); S. N. Singh (Cong.), (Gndha); Gangaram Choudhary (Cong.), (Gudhamalani); Brij Prakash Goel (Cong.), (Hanumangarh); Durgalal Batdar (Swa.), (Hawamahal); Sarvan Lal (S.C.), (J.S.), (Hindaun); Kesari Singh Handa (J.S.), (Hindoli); Kalyan Mal (S.T.) (Cong.), (Jhazpur (R)); Bal Singh Sod (Swa.), (Jaisalmer); Sankar Lal

(Cong.), (Jaitaran); Virda Ram (S.C.) (Cong.), (Jalore (R)); Nathu Lal (Swa.), (Jamwaramgarh); Ram Singh (B.K.D.), (Jayal); R. P. Bohra (B.K.D.), (Jhalrapatan); Smt. Sumitra Singh (Cong.), (Jhunjhunu); Barakatulla Khan (Cong.), (Jodhpur); S. C. Agarwal (J.S.), (Johari Bazar); Majilis Khan (Cong.), (Kaman); Shankar Lal (Cong.), (Kapasan); Gurdip Singh (Cong.), (Karanpur); Maharajkumar Brijendra Pal Singh (Ind.), (Karauli); Dr. Ganga Sahai (S.C.), (J.S.), (Kathumar (R)); Devi Lal Burasia (Swa.), (Kekri (R)); Manphool Ram (Cong.), (Keshrisinghpur (R)); Gokul Chand (S.C.) (Cong.), (Khairthal (R)); Chunni Lal Jelia (Swa.), (Khandar (R)); Ram Chandra (B.K.D.), (Khandela); Maharani Shiy Kumari (J.S.), (Khanpur); Surendra Singh (Swa.), (Kharchi); Vidya Sagar (Cong.), (Kherwara (R)); Vacant, (Khetri); Nand Lal Dandwasi (J.S.), (Kshanganj (R)); Maharaja Sumer Singh (Swa.), (Krishangarh); Bhairo Singh (J.S.), (Kishanpole); Smt. Kanta Kathuria (Cong.), (Kolayat); Krishna Kumar Goel (J.S.), (Kota); Sri Ram Rawat (Cong.), (Kotputli); Hira Lal Devpura (Cong.), (Kumbalgarh); Raja Man Singh (Ind.), (Kumher); Hira Bhai (S.S.P.), (Kushalgarh-R)); Harjiram Burdak (B.K.D.), (Ladnu); Shambhu Ram (Swa.), (Laisot (R)); Nath Mal Chohla (Cong.), (Lakshmangarh (R)); Jai Narain (Cong.), (Lasadia (R)); P. C. Vishnoi (Cong.), (Luni); Bhim Sain (Cong.), (Lunkaransar); S. C. Singh (Cong.), (Mahuwa); Vijay Singh Takor (Swa.), (Makrana); Damodarlal Vyas (Cong.), (Malpura); K. K. Shivcharan (Cong.), (Mandal); Manohar Singh Mehta (Ind.), (Mandalgarh); Ram Narain Chowdhury (Cong.), (Mandawa); Dr. Hari Prasad (Cong.), (Mandawar); Narain Singh (Cong.), (Masuda); Niranjan Nath Acharya (Ind.), (Mawali); Goverdhan Soni (Swa.), (Merta); Nathi Lal (Cong), (Nadbai) (R)); Haji Mohammad Usman (Cong.), (Nagaur); Shankar Singh Rawat (Cong.), (Nasirabad); Krishan Lal Sharma (Cong.), (Nathdwara); S. M. Basotiya (Cong.), (Navalgarh); Kishan Lal Shah (Swa.), (Nawan); Mohan Lal Modi (Cong.), (Nim-ka-Thana); Sriniwas (Cong.), (Nimbahera); Jai Narain Salodiya (S.C.) (Swa.), (Niwai (R)); Ram Chandra Arya (B.K.D.), (Nohar); Chuni Lal (Indaliya (B.K.D.), (Nohar); Chuni Lal (Indaliya (B.K.D.), (Nokha (R)); Ranjit Singh (Cong.), (Ousia); Mrs. Madan Kaur (Cong.), (Pachpadra); Mahendra Kumar (Cong.), (Padwak (R)); Mulchand Daga (Cong.), (Pali); Paras Ram Gangaram (S.C.), (Swa.), (Parbatsar (R)); Nand Lal Bairava (Cong.), (Patan (R)); Mulchand Katewa (Cong.), (Pilani); L. R. Sulania (Swa.), (Phagi Ratewa (Cong.), (Fuam); L. R. Sulania (Swa.), (Fhagi (R)); Nathu Das (Swa.), (Phalasia (R)); Deep Chand Changani (Cong.), (Phalodi); P. K. Chaudhari (Cong.), (Phulera); Vitthal (S.S.P.), (Pipal Khunt (R)); Mahendra Singh (J.S.), (Pipalda); (Kanhaiya Lal Patel (Cong.), (Pirawa); Har Lal (S.T.) (Cong.), (Pratapgarh (R)); Smt. Prabha Mishra (Cong.), (Pushkar);

Mulk Raj (Cong.), (Raisinghnagar (R)); Samrath Lal (Cong.), (Rajgarh (R)); Pradhyumna Singh (Cong.), (Rajgarhagar); Amritlal Yadav (Cong.), (Rajgamand (R)); Jujhar Singh (B.K.D.), (Ramganj); Shobha Ram (Cong.), (Ramgarh); Durjan Singh (Cong.), (Ranivada); Moti Lal (Cong.), (Reodar (R)); Shish Ram (Cong.), (Sadulpur); Bheekha Bhai (Cong.), (Sagwara (R)); Jawahar (Cong.), (Sahada); Roshan Lal (Cong.), (Salumber); Birbal (Cong.), (Sangariya (R)); Raghunath Vishnoyi (Cong.), (Sanchor); Ram Kumar (Cong.), (Sapotra (R)); Devi Lal Mina (Cong.), (Sarada (R)); Dr. Om Dutt Bhati (J.S.), (Sardarpura); Roop Singh Rajvi (Ind.), (Sardar Shahar); H. V. Sharma (Swa.), (Sawai Madhopur); Bhura Lal (Cong.), (Shahpura (R)); Khet Singh (Cong.), (Shergarh); Hukam Singh (Cong.), (Shiv); Ramdev Singh

(Cong.), (Sikar); Kishan Lal Verma (Cong.), (Sikrai (R)); Madan Singh (Cong.), (Sirohi); Kalu Ram Meghwal (Cong.), (Siwana (R)); Pukhraj Kalani (Cong.), (Sojat); Prof. Kedarnath (S.S.P.), (Sriganganagar); Sardar Gurdeo Singh (Cong.), (Srikaranpur); Manphulram (Cong.), (Srikaranpur); Manphulram (Cong.), (Srikesarisimhpur); Har Lal Singh (J.S.), (Si Madhopur); Labhchand Vaidya (J.S.), (Sujanagarh); P. C. Bafna (Swa.), (Sumerpur); Suraj Mal (Cong.), (Suraigarh (R)); Ch. Man Phool Singh (Cong.), (Suratgarh); Jai Krishan Sharma (Cong.), (Thanagasi); Aminuddin Ahmed (Cong.), (Tijara); Chuttan Lal (Cong.), (Toda Bhim); Jagan Nath (Cong.), (Todaraisingh); Surendra Vyas (Cong.), (Tonk); Mohan Lal Sukhadia (Cong.), (Udaipur); Rajkumar Digvijay Singh (Swa.), (Uniara); Gulab Singh Shaktavat (Cong.), (Vallabhnagar); Ram Kishan (S.S.P.), (Weir)

#### TAMIL NADU LEGISLATIVE ASSEMBLY

Constituencies: 234; Electorate: 2,07,97,325; Seats: 235 (S.C. 42; S.T. 2).

Speaker: Pulavar K. Govindan; Dy. Speaker: G. R. Edmond.

An estimate of party position is given below: D.M.K. 136; Cong. 48; Swa. 19; C.P.I.-M. 10; P.S.P. 4; M.L. 2; S.S.P. 1; Ind. 3; C.P.I. 3; Republican Party 1; Tamil Arasu Kazhakam 1; F.B. 1; Nominated 1; Vacant 4.

P. S. Ellappan (S.C.) (Swa.), (Acharapakkam); A. Marimuthu (Cong.), (Aduthurai); K. V. Subbiah (D.M.K.), (Alangudi); V. Aladi Aruna (D.M.K.), (Alangulam); G. Gomathysankara Dikshidar (Cong.), (Ambasamudram); M. Panneerselvam (S.C.) (D.M.K.), (Ambur); E. M. Natarajan (D.M.K.), (Andhiyur); K. N. Ramachandran (D.M.K.), (Andimadam); S. Paramasivam (Swa.), (Andipatti); A. Duraiyarasan (D.M.K.) ((Arantangi); S. Kandasamy Gounder (Swa.), (Aravakurichi); N. Veeraswamy (D.M.K.), (Arcot); R. Karuppiah (Cong.), (Ariyalur); S. J. Ramaswamy (D.M.K.), (Arkonam); A. C. Narasimhan (D.M.K.), (Arni); Sowdi S. Sundara Bharathi (Swa.), (Aruppukottai); K. N. Sivaperumal (D.M.K.), (Attur); Vacant, (Athoor); R. Krishnaswami Gounder (Swa.), (Avanashi); M. R. Kannan (D.M.K.), (Basin Bridge); A. M. Raja (D.M.K.), (Bhavani); V. K. Ramarasan (S.C.) (D.M.K.), (Bhavanisagar); A. Govindarasan (D.M.K.), (Bhuvanagari); S. Srinivasan (Cong.), (Bodinayakanur); P. S. Santhanam (S.C.) (D.M.K.), (Chengam); Vacant, (Cheranmahadevi); Pulavar K. Govindan (D.M.K.), (Cheyyar); R. Kanakasabai (Cong.), (Chidambaram); C. G. Viswanathan (D.M.K.), (Chingleput); M. Bhupathy (C.P.I.-M.), (Coimbatore East); K. Govindarajulu (D.M.K.), (Coimbatore West); A. Pauliah (Cong.-O), (Colachel); J. Bellie Gowder (D.M.K.), (Coonoor); Ere. Elamvazhuthi (D.M.K.), (Cuddalore); V. P. Palaniammal Tirumathi (SC) (D.M.K.), Dharapuram); M. Subramania Gounder (D.M.K.) (Dharmapuri); A. Balasubramanyan (C.P.I.-M), (Dindigul); A.Arumugam (D.M.K.), (Edappadi); A. V. P. Asaithambi (D.M.K.), (Egmore); M. Chinnasamy (D.M.K.), (Erode); R. Ramachandra Dorai (Cong.), (Gandarvakottai); A. Karuppiah (SC) (D.M.K.), (Gangaikondan); V. Munuswami (D.M.K.), (Gingee); K. M. Ramaswami Gounder (Swa.), (Gobichethipalayam); C. Nanjan (SC) (Cong.), (Gudalur); V. K. Kothandaraman (C.P.I.-M.), (Gudiyattam); K. Vezhavendan (D.M.K.), (Gummidipundi); Dr. Habibullah Baig (Ind.), (Harbour); N. Theerthagiri (SC) (Cong.), (Harur); B. Venkatswamy (Swa.), (Hosur); V. Malaikannan (D.M.K.), (Hayankudi); Kaliamorthy alias A. K. Moorthy (SC) (D.M.K.), (Jayankondam); C. V. Velappan (D.M.K.), (Kapilamalai); M. Alangaram (S.C.) (D.M.K.), (Kadaladi); C. V. M. Annamalai (D.M.K.),

(Kadambathur); K. K. Muthiah (Cong.), (Kadavur); A. R. Subbiah Mudaliar (Ind.), (Kadayanallur): S. Murugian (D.M.K.), (Kalasapakkam); D. Kesavalu (D.M.K.), (Kallakurichi); N. Krishnan (D.M.K.), (Kancheepuram); M. Raman (SC) (D.M.K.), (Kandamangalam); A. Senapathi (Cong.), (Kangayam); L. Balaraman (Cong.), (Kaniyambadi); B. Mahadevan (Cong.), (Kanyakumari); S. Meiyappan (Swa.), (Karaikudi); A. R. Perumal (Swa.), (Kariappatti); T. M. Nallaswamy (Cong.), (Karur); G. Natarajan (D.M.K.), (Katpadi); S. Sivasubramanian (SC) (Cong.), (Kattumannarkoil); E. Pattabi Naidu (Cong.), (Kaveripathinam); M. William (Cong.), (Killiyoor); M. Kannappan (D.M.K.), (Kinathukadavu); C. Krishnamoorthi (D.M.K.), (Kodavasal); S. Alagrisamy (C.P.I.), (Koilpatti); A. K. Subbiah (SC) (C.P.I.), (Kottur); P. M. Muniswamy Gounder (Cong.), (Krishnagiri); P. Soundarapandian (SC) (D.M.K.), (Krishnarayapuram); M. Kandaswamy (D.M.K.), (Kulithalai); N. Kasiraman (Cong.), (Kumbakonam); M. Gopal (SC) (D.M.K.), (Kunnathur); N. Rajangam (SC) (D.M.K.), (Kurinjipadi) G. Bharathi Mohan (C.P.I.M.), (Kuttalam); M. K. D. Natarajan (D.M.K.), (Lalgudi); C. Govindarajan (D.M.K.), (Madurai Central); Smt. K. P. Janakiammal (C.P.I. M.), (Madurai East); N. Sankariah (C.P.I. M.), (Madurai West); K. Cheemaichamy (Swa.). (Manamadu-(Manualum rest); K. Cheemalchamy (Swa.). (Manualum rai); A. Krishnan (SC) (D.M.K.), (Mangalum); T. S. Swaminatha Odayar (Cong.), (Mannarkudi); Kolathur Kothandam (D.M.K.), (Mathuranthagam); N. Kittappa (D.M.K.), (Mayuram); R. R. Muniswamy (D.M.K.), (Melamalayanum); Haji M. M. Peer Mohammed (M.L.), (Melamalayanum); P. M. J. (Melamalayanum); O. P. (Melamatayanur); Haji M. M. Peer Mohammed (M.L.), (Melapalayam); P. Malaichamy (D.M.K.), (Melur); O. P. Raman (SC) (D.M.K.), (Melur South); T. T. S. Thippiah (Cong.), (Mettupalayam); Surendran (P.S.P.), (Mettur); K. R. Nallasivam (S.S.P.), (Modakkurichi); Vacant (Mugaiyur); R. Rethina Thevar (Swa.), (Mudukulathur); P. S. Muthuselvan (D.M.K.), (Musiri); Rama Arangannal (D.M.K.), (Mylapore); K. R. Gnanasambandan (C.P.I. M.), (Nagarathiyanu); M. C. Balan sambandan (C.P.I. M.), (Nagapathinam); M. C. Balan (D.M.K.), (Nagercoil); M. Muthusamy (D.M.K.), (Namakkal); N. Duraipandian (Cong.), (Nanguneri); P. Jayaraj (SC) (Cong.), (Nannilam); T. C. Thimmaraya Gounder (D.M.K.), (Natrampalli); C. Govindarajan (C.P.I. M.), (Nellikuppam); A. Muniyandi (SC) (D.M.K.), (Nilak-kottai); C. Palani (SC) (D.M.K.), (Omalur); K. Bojan (Swa.), (Ootacamund); L. Ganesan (D.M.K.), (Orathanad); N. Nackimath, (D.M.K.), (Omalur) N. Nachimuthu (D.M.K.), (Ottanchatram); M. Muthiah (SC) (Swa.), (Ottancharam); V. George (Cong.), (Padmanabhapuram); K. Murugesan (Cong.), (Palacode); K. Krishnamoorthi (SC) (D.M.K.), (Palani); K. N. Kumarasamy (P.S.P.), (Palladam); T. Ponnumalai (D.M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (Panamagatharath), S. B. S. L. L. L. (P. M.K.), (P. M.K (Panamarathupatti); S. Ramachandran (D.M.K.), (Panruti); R. Soundararaja Moopanar (Cong.), (Papanasam):

T. K. Siraimeetan (SC) (D.M.K.), (Paramakudi); H. V. Hande (Swa.), (Park Town); A. R. Marimuthu (P.S.P.), (Pattukottai); P.K. C. Muthuswamy (Cong.), (Pennagaram); J. S. Rasu (SC) (D.M.K.), (Perambalur); Dr. Satyavanimuthu (SC) (D.M.K.), (Perambur); V. D. Annamalai (D.M.K.), (Pernamallur); P. Jayaraman (SC) (D.M.K.), (Peranampattu); M. Krishnamoorthi (D.M.K.), (Peraurani); M. Mehta (D.M.K.), (Periakulam); Vacant (Perunthurai); N. Marudachalam (SC) (C.P.I.), (Perur); A. P. Shanmugasundaram (D.M.K.), (Pollachi); Thirumathi S. Kuppammal (D.M.K.), (Polur); P. N. Paramasivam (D.M.K.), (Pongalur); P. Nagalingam (SC) (D.M.K.), (Ponneri); R. Vijaya Raghunatha Thondaiman (Cong.), (Pudukkottai); V. S. Govindarajan (D.M.K.), (Purasawalkam); N. Soundarapandian (Cong.), (Radhapuram); A. A. Subbaraja (Ind.), (Rajapalayam); T. Thangappan (D.M.K.), (Ramanathapuram); M. Abdul Ghaffoor Sahib (M.L.), (Ranipet); P. Periasamy (D.M.K.), (Rasipuram); M. Anandan (SC) (D.M.K.), (Rishivandiyam); M. Karunanidhi (D.M.K.), (Saidapet); K. Jayaraman (D.M.K.), (Salem-I); E. R. Krishnan (D.M.K.), (Salem-II); (SC) (D.M.K.), (Sankarankoil); C. Veeramani (SC) (D.M.K.), (Sankari); S. P. Pachaiyappan (D.M.K.), (Sankarapuram); P. G. Karuthiruman (Cong.), (Satyamangalam); T. Martin (Cong.), (Sattangulam); R. Srinivasaga Naicker (Swa.), (Sattur); V. Thavamani Thevar (Swa.), (Sedapatti); S. Ganesan (D.M.K.), (Sembanarkoil); A. Sella Gounder (ST) (Cong.), (Sendamangalam); P. S. Manian (D.M.K.), (Sholavandan); R. N. Aranganathan (D.M.K.), (Sholinghur); P. Velusamy (P.S.P.), (Singanallur); K. B. S. Mani (SC) (Rep.), (Sirkali); S. Sethuraman (D.M.K.), (Sivaganga); S. Alagu Thevar (F.B.), (Sivakasi); D. Irajarathinam (D.M.K.), (Sriperumbudur); S. Ramalingam (SC) (Cong.), (Srirangam); Si. Pa. Aditanar (D.M.K.), (Srivaikuntam); Andi alias K. Gurusamy (SC) (D.M.K.), (Srivilliputhur); M. G. Ramachandran (D.M.K.), (St. Thomas Mount); M. Marimuthu (SC) (D.M.K.), (Talavasal); K. R. Govindan (D.M.K.,) (Taramangalam); K. M. Kathiravan (D.M.K.), (Tenkasi); K. Saha-deva Gandar (Cong.), (Thandarambattu); A. Y. S. Parisutha Nadar (Cong.), (Thanjavur); Palanivel Rajan (D.M.K.), (Theni); M. P. Sivagnanam (Tamil Arusu Kazhakam), (Thiyagarayanagar); N. S. V. Chithan (Cong.), (Thirumangalam); KR. RM. Kariamanickam Ambalam (Swa.), (Thiruvadanai); N. Dharmalingam (D.M.K.),

(Thiruthuraipundi); Pulavar G. Murugaiyan (D.M.K.), (Thiruvaiyaru); P. S. Dhanushkodi (SČ) (C.P.I. M.), (Thiruvarur); V. Swaminathan (Cong.), (Thiruverumbur); R. Maniekavachagam (D.M.K.), (Thondamuthur); S. K. Vadivel (D.M.K.), (Thottiyam); K. A. Mathianagan (D.M. K.), (Thousand Lights); K. Ramamoorthy (Cong.), (Tindivanam); G. R. Edmund (D.M.K.), (Tiruchendur); T. A. Rajavelu (D.M.K.), (Tiruchengode); M. S. Mani (D.M.K.), (Tiruchirappalli-1); R. Nagasundaram (D.M.K.), (Tiruchirappalli-11); E. M. Subramaniam (Cong.), (Tirukkoilur); Pulavar P. Ponnambalam (D.M.K.) (Tirumayam); A. L. Subramaniam (D.M.K.), (Tirunel-(Tirumayam); A. L. Subramaniam (D.M.K.), (Tirunelveli); C. K. Chinnarajee (D.M.K.), (Tirupattur); S. Agni Raju (D.M.K.), (Tirupparankundram); S. Madhavan (D.M.K.), (Tiruppathur); Munu Adhi (D.M.K.), (Tirupporur); S. Duraisamy (D.M.K.), (Tiruppur); K. Vinayakam (Cong.), (Tirutani); S. M. Dorairaj (SC) (D.M.K.), (Tiruvallur); D. Vijayaraj (Cong.), (Tiruvannamalai); J. James (Cong.), (Tiruvattar); A. P. Arasu (D.M.K.), (Tiruvottiyur); V. R. Nedunchezhiyan (D.M.K.), (Triplicane); M. S. Sivasami (D.M.K.), (Tuticorin); K. S. Kothandaramiah (Swa.), (Uddanavalle): S. K. S. Kothandaramiah (Swa.), (Uddanapalle); S. J. Sadiq Pasha (D.M.K.), (Udumalpet); M. Kandasamy Padayachi (Cong.), (Ulundurpet); T. P. Alagamuthu (D.M.K.), (Uppiliapuram); Mookiah Thevar (Swa.), (Usilampatti); T. Theerthagiri Gounder (Cong.), (Uthangarai); K. M. Rajagopal (D.M.K.), (Uttiramerur); P. Thambi Naicker (Cong.), (Vadamadurai); N. Somasundaram (SC) (D.M.K.), (Valangiman); E. Ramasami (SC) (D.M.K.), (Valparai); S. A. Rajamannar (Cong.), (Vaniyambadi); A. G. Balakrishnan (SC) (D.M.K.), (Vanur); R. Narayanan (D.M.K.), (Varahur); A. Velladurai (D.M.K.), (Vasudevanallur); P. Venkatachala Thevar (Cong.), (Vedaranyam); N. Varadarajan (C.P.I. M.), (Vedasandur); S. Arumugam (D.M.K.), (Veerapandi); K. N. Saminathan (D.M.K.), (Vellakoil); M. P. Sarathi (D.M.K.), (Vellore); M. Rathinasabapathy (D.M.K.), (Vilathikulam); R. Ponnappa Nadar (Cong.), (Vilavan-code); M. Shanmugam (D.M.K.), (Villupuram); V. S. Hanchezian (D.M.K.), (Viralimalai); P. Sreenivasan (D.M.K.), (Virudhunagar); G. Bhuvarahan (Cong.), (Vridhachalam); S. Muthulingam (SC) (D.M.K.), (Wandiwash); M. Vedachalam (D.M.K.), (Washermenpet); V. Chinnasamy (ST) (D.M.K.), (Yercaud); Thirumathi A. Suares (Affiliated to D.M.K.), (Nominated).

#### TAMIL NADU LEGISLATIVE COUNCIL

An estimate of party strength is as follows: (Congress (O) 18; Congress (R) 2; Praja Socialist 1; United Party 3; Dravida Munnetra Kazhagam 25; Indian Union Muslim League 1; Toilers Commonweal Party 1; Swatantra 4; Independent 6; Tamil Arasu Kazhagam 1.

Chairman: C. P. Chitrarasu; Deputy Chairman: G. Krishnamoorthy; Secretary: G. M. Alagarswamy.

Legislative Assembly Constituency (21): K. S. Abdul Wahab (I.U.M.L.); M. Arumugasami (P.S.P.); T. S. Arunachalam (Cong. (0); C. P. Chitrarasu (Ind.); M. Ethirajalu (Cong. (0); Saw. Ganesan (Swa.); R. Krishnaswami Naidu (Cong. (0); S. V. Lakshmanan (Cong. (0); S. Muthu (D.M.K.); N. V. Natarajan (D.M.K.); P. Naryanaswamy (D.M.K.); G. Parangusam (D.M.K.); A. Ponnappa Naidu (Cong. (0); T. K. Ponnuvelu (D.M.K.); C. V. Rajagopal (D.M.K.); S. A. Rajamanickam (D.M.K.); K. Ramakrishna Achari (Cong. (0); R. Raman Nair (Cong. (0); A. R. Sundararajan (Swa.); V. Thanga Pandian (D.M.K.).

Local Authorities' Constituency (21): V. Venga (D.M.K.), (Chingleput); M. Ramanathan (D.M.K.),

(Coimbatore-Nilgiris); Sengottuvelappa Gounder (Cong. (R), (Coimbatore-Nilgiris); N. Wilson Apollos (Cong. (0), (Kanyakumari); Ayyanan Ambalam (Ind.), (Madurai); K. Rajaram Naidu (Cong. (0), (Madurai); T. V. Devaraja Mudaliar (Cong. (0), (North Arcot); P. U. Shanmugam D.M.K.), (North Arcot); S. Jayarama Reddiar (Cong. (R) (Ramanathapuram); P. Thiruganasambandam (D.M.K.), (Ramanathapuram); T. M. Kaliyanam (Cong. (0), (Salem-Dharmapuri); P. T. Muthu (D.M.K.), (Salem-Dharmapuri); S. S. Ramaswamy Padayatchi (T.C.W.P.), (South Arcot); R. Sambasivam (D.M.K.), (South Arcot); K. S. Mani (D.M.K.), (Thanjavur); N. Sundaresa Thevar (Cong. (0), (Thanjavur); T. S. Srinivasan Pillai (Cong. (0), (Tiruchirapalli); T. K. Subbiah (Cong. (0), (Tiruchirapalli); S. T. Adityan (D.M.K.), (Tirunelveli); S. Vellapandian (Cong. (0), (Tirunelveli).

Graduates' Constituency (6): S. Narayanaswamy (Swa.), (Madras Dist.); Smt. G. Vasanta Pai (Ind.), (Madras Dist.); G. Swaminathan (Swa.), (Madras East), A. R. Damodaran (United Party), (Madras North); D. Santosham (United Party), (Madras South); V. Iswarmurti (Cong.(0) (Madras West).

Teachers' Constituency (6): K. Arivazhagan (D.M.K.), (Madras Chingleput); M. Raja Iyer (Ind.), (Madurai Ramanathapuram); Pulavar Arivudai Nambi (D.M.K.), (North Arcot); S. Muthuswamy (Ind.), (Salembharmapuri-Coimbatore-Nilgiris); G. Krishnamoorthy (United Party), (Thanjavur-Tiruchirappalli); M. Sankaralingam Pillai (D.M.K.), (Tirunelveli-Kanyakumari).

Nominated (9): A. P. Janardhanam (D.M.K.); M. Aiyaswamy (Cong. (0); Smt. S. Manjubhashini (Cong. (0); Devasigamani Arunachala Desikar (Ind.); Smt. Mary Clubwala Jadhav (Ind.); D. V. Narayanaswamy (D.M.K.); Neela Narayanan (D.M.K.); T. K. Shanmugham (T.A.K.); S. S. Theanarasu (D.M.K.).

#### TRIPURA LEGISLATIVE ASSEMBLY

Constituencies: 30. Seats: 33.

Total electorates 6,05,926; Reservation of seats:— Seheduled Castes 3; Scheduled Tribes 9.

Speaker: Manindra Lal Bhowmick; Dy. Speaker:

Monoranjan Nath.

An estimate of party position is as follows: Congress 27; Communist 1; Communist (Marxist) 2; Nominated 3.

Dr. Benode Behari Das (S.C.) (Cong.), (Agartala Sadar I); Sachindra Lal Singh (Cong.), (Agartala Sadar II); Sachindra Lal Singh (Cong.), (Agartala Sadar II); Tarit Mohan Dasgupta (Cong.), (Agartala Sadar III); Krishnadas Bhattacherjee (Cong.), (Agartala Town); Upendra Kumar Roy (Cong.), (Belonia); Bajuban Riyan (S.T.) (Cong.), (Birganj); Umesh Lal Singh (Cong.), (Bishalgarh); Aghore Deb Barma (S.T.) (C.P.I.), (Charilam); B. B. Banerjee (Cong.), (Dharmanagar North); Monoranjan Nath (Cong.), (Dharmanagar South); R. C. Deb Rankhal (S.T.) (Cong.), (Dumburnagar); R. R. Gupta (Cong.),

(Fatikroy); Abdul Wazid (Cong.), (Kadamtala); M. L. Bhowmick (Cong.), (Kailasanar); B. C. Deb Barma (S.T.) (C.P.M.), (Kalyanpur); Kshitish Chandra Das (S.C.) (Cong.), (Kamulpur); R. P. Chowdhury (S.T.) (Cong.), (Kanchanpur); S. C. Dutta (Cong.), (Khowai); Ghaneshyam Dewan (S.T.) (Cong.), (Kulaihour); P. R. Dasgupta (Cong.), (Mohanpur); S. C. Choudhury (Cong.), (Mohurinur); Jatindra Kumar Majumdar (Cong.), (Old Agartala); N. K. Sarkar (Cong.), (Radhakishorepur); Angju Mog (S.T.) (Cong.), (Sabroom); Ershad Ali Choudhury (Cong.), (Salgarh); D. K. Choudhury (Cong.), (Sonamura North); Munchor Ali (Cong.), (Sonamura South); M. Deb Barma (S.T.) (Cong.), (Takarjala); Prafulla Kumar Das (S.C.) (Cong.), (Teliamura); A. Deb Barma (S.T.) (C.P.M.), (Uttar Debendranagar); Rajkumar Kamaljit Singh (Nominated); Naresh Roy (Nominated); Smt. Renu Chakraborty (Nominated).

#### UTTAR PRADESH LEGISLATIVE ASSEMBLY

Seats: 425 (S.C. 80)—Electorates: 14 million.

Speaker: Atmaram Govindkher; Dy. Speaker: Vasudev.

An estimate of Party position is given below: Congress 213; Bharatiya Kranti Dal 98; Kisan Mazdoor Party 1; Hindu Maha Sabha 1; Bharatiya Jansangh 48; Samyukta Socialist Party 32; Praja Socialist Party 3; Swatantra Party 5; Communist Party 4; Communist Party (Marxist) 1; Republic Party 1; Independent 18; Nominated 1.

Girdharilal (S.C.) (Cong.), (Afzalgarh); Jagbir Singh (B.K.D.), (Agauta); Devaki Nandan Vibhav (Cong.), (Agra Cantt.); Dr. Prakash Narayan Gupta (Cong.), (Agra East); Hakum Singh (B.K.D.), (Agra West); Paramai Lal (Cong.), (Ahirouri); Sukhlal Kouri (S.C.) (Cong.), (Ajimal); Priyadarshi Jathali (Cong.), (Akbarpur); Om Prakash Singh (B.K.D.), (Alampur); Satish Chandra (J.S.), (Aliganj); Ahmed Lutkhan (Cong.), (Aligarh); Dr. Rajendra Kumari Bajpai (Cong.), (Allahabad-South); Habib Ahmed (Ind.), (Allahabad-West); Hari Singh (Cong.), (Almora); Kesho Ram (Cong.), (Ambigapur); Raja Ranamjay Singh (J.S.), (Ameti); Smt. Sonbaghyavati (B.K.D.), (Amroha); K. S. Mohria (Cong.) (Anupshahar); Raj Bihari (Cong.), (Arajeeline); Shivlal (S.C.) (Cong.), (Arvai); Chauhan Bharat Singh (B.K.D.), (Aurai); Chauhan Bharat Singh (B.K.D.), (Auraiya); Keshav Ram (S.C.) (Cong.) (Avala); Vishwanath Kapoor (Cong.) (Ayadhya); Bhima Prasad (S.S.P.), (Azamgarh); Sudama Prasad Goswami (Cong.), (Babina); Ram Dulare (S.C.) (Cong.), (Bachravan); Krishna Swarup (J.S.), (Badayun); Vikram Singh (Cong.), (Badanth); Navendra Singh (Ind.), (Badrikedar); Smt. Saraswati Devi (S.C.) (Cong.), (Bageshwar); Ram Charan (S.C.) (Swa.), (Bah); Ram Lakham Singh (Cong.), (Bahadurpur); Rupnath Singh Yadav (S.S.P.), (Bahadurpur); Rhamed Khan (B.K.D.), (Baheri); Bishanlal Yadav (B.K.D.), (Bahjoi); Kedarnath (Cong.), (Bahraich); Shambunath

Choudhury (S.S.P.), (Baliya); Maheshwar Datt Singh (Cong.), (Balrampur); Mahiraj Singh (Cong.), (Banda); Ramkumar Sastri (Cong.), (Banganva); Gopinath Dikshit (Cong.), (Bangarmau); Chedalal Choudhury (Cong.), (Bankeganj); Bacha Patak (Cong.), (Bansdih); Madhav Prasad Tripati (J.S.), (Bansi); Sarvasukh Singh (B.K.D.), (Barah); Avadesh Pratap Malla (Cong.), (Barhaj); Ashfak Ahmed (Cong.), (Bareilly Cantt.); Ram Singh Khanna (B.K.D.), (Bareilly City); Kishanlal (S.C.) (J.S.), (Barkhera); Dharmavir Singh (B.K.D.), (Barnala); Yadavendra (B.K.D.), (Beesalpur); Krishna Kant (Cong.), (Behata); Sukru (S.C.) (B.K.D.), (Beniganj), Sambhunarain Singh (C.P.I.), (Bhaiya); Ram Nihor (S.C.) (B.K.D.), (Bhadoh); Bhagwati Singh Visharad (Cong.), (Bhagwantnagar); Banu Pratap Singh (Swa.), (Bhanwapur); Balramsingh Yadav (Cong.) (Bharthana); Haribamsh (S.S.P.), (Bhatpar Rani); Raibahadur Rafekhan (B.K.D.), (Bhawan); Chandramani Kant Singh (Cong.), (Bhinga); Jwala Prasad Kuril (Cong.), (Bhogan:pur); Banu Pratap Singh (Cong.), (Bhojipura); Shivpal Singh (B.K.D.), Bichiya: Gaya Prasad (S.C.) (S.S.P.), (Bihar); Rampal Singh (B.K.D.), (Bijnor); Smt. Manwati Devi (Cong.), (Bikapur); Sukhpal Pandey (P.S.P.), (Bikramjoth); Smt. Kala Rani (Cong.), (Bilapur); Mohamed Asrar Ahmed (Ind.), (Binawar); Pannalal Gupta (B.K.D.), (Bindaki); Sardar Chanchal Singh Gil (Cong.), (Bilaspur); Ram Dev (S.S.P.), (Birapur); Shivraj Singh (B.K.D.). (Bisauli): Kripa Dayal (Cong.), (Biswan); Uma Nath (Bisauli); Kripa Dayal (Cong.), (Biswan); Uma Nath (J.S.), (Bayalasi); Indrajeet Singh (S.C.) (Cong.), (Bisun-pur); Shamim Alam (Rep.), (Buland Shahr); Ram Lakhan (S.C.) (Cong.), (Chakia); Nasimuddin (Ind.), (Chamanganj); Kamalapati Tripati (Cong.), (Chandausi); Mahavir Singh (B.K.D.), (Chandausi); Charan Singh (B.K.D.), (Chaprauli); Raja Shrinivas Prasad (Cong.), (Chande); Mahadev Prasad (S.C.) (Cong.), (Charda); Chand Narayan Singh (Ind.), (Charkhari); Nain Singh (B.K.D.), (Charthwal); Tejpal (Cong.), (Chata); Trilok Chand (S.C.) (B.K.D.), (Chatari); Ramkumar (Cong.), (Chaubepur); Kanhyalal Sonkar (S.C.) (J.S.), (Chayal); Jagdishwar Dayal (Cong.), (Chibramaw); Jagannath (Cong.), (Chilkahar); Kalpanath Singh (Cong.), (Chillupur); Uday Nath (B.K.D.), (Chiraigaon); Shivdas (S.S.P.), (Chunar); Ramchandra Vikal (U.P. Kisan), Rammurthy Anchal (Cong.), (Dadraul); Shivshankar Singh (Cong.), (Dalmau); Girija Shankar (Cong.), (Dariyabad); Triveni Sahay (Cong.), (Datagan); Liladhar (B.K.D.), (Dayalbag); Himmat Singh (J.S.), (Debai); Nityanand Swamy (J.S.), (Dehra Dun); Mahavir Singh (Cong.), (Deoband); Indramani (Cong.), (Deo Prayag); Deep Narayan Mani (B.K.D.), (Deoriya); Rampal Singh Yadav (S.S.P.), (Derapur): Sattar Ahmed (B.K.D.), (Dhampur); Baijnath (B.K.D.), (Dhanapur); Jagannath Prasad (Cong.), (Dheerehara); Rampati (S.C.) (S.S.P.), (Dhuriapur); Gopal Datt (Cong.), (Didihat); Krishnanand Rai (Cong.), (Dildarnagar); Minejor Singh (Ind.), (Doaba); Ram Pyare (S.C.) (Cong.), (Dudhi); Hari Datt (Cong.), (Dwarahat), Jalil Abbasi (Cong.), (Dumriyaganj); Meharban Singh (Cong.), (Ekeshwar); Bhaganti (S.C.), (J.S.), (Ekauna); Ramjiyavan (B.K.D.), (Esouli); Ganga Prasad (Cong.), (Etah); Hotilal Agarwal (Cong.), (Etawa); Vasudev Singh (J.S.), (Fakkarpur); Rajeshwar Singh (B.K.D.), (Faridpur); Maharam Singh (Cong.), (Farukhabad); Hukumsingh (S.S.P.), (Fatehabad); Umakant Vajpeye (J.S.), (Fatchpur); Nathyaram Rawat (S.C.) (Cong.), (Fatehpur); Raghunath Singh (B.K.D.), (Fatehpur-Sikri); Ramdhari (S.S.P.), (Fajilnagar); Rajaram (Ind.), (Ferozabad); Balbir Singh (B.K.D.), (Gadmukteswar); Jitendrapal Singh (S.C.) (B.K.D.), (Gangeswari); Vijayapal Singh (J.S.), (Gaisadi); Anisur Rahman (S.S.P.), (Gangiri); Ramlal Chaturvedi (Cong.), (Gauri Bazar); Smt. Rajpati Devi (Cong.), (Gauri Gunj); Ramshiromani (Cong.), (Ghadvara); Beni Singh (Cong.), (Ghatmapur); Pyarelal (S.S.P.), (Ghaziabad); Ram Surat Singh (Cong.), (Ghazipur); Raghubir Singh Yadav (B.K.D.), (Ghiror); Ram Bilas (Cong.), (Ghosi); Kanhyalal (S.C.) (Cong.), (Gobardhan); Chandrapal Azad (B.K.D.), (Gokul); Triveni Sahay (J.S.), (Gonda), Dal Singar (S.S.P.), (Gopalpur); Ramlal Bhai (Cong.), (Gorakhpur); Prabhakar Tripati (Cong.), (Govindnagar); Rishipal Singh (J.S.), (Gunnaur); Banshidhar Pandey (Cong.), (Gyanpur); Santu Ram (S.C.) (J.S.), (Haisa Bazar); Indralal (S.C.) (Cong.), (Haldwani); Pratap Narayan (Cong.), (Hamirpur); Ranjit Ram (S.S.P.), (Hamdiya); Laxman Swarup (S.C.) (B.K.D.), (Hapur); Lalu (S.C.) (Cong.), (Haraia); Smt. Asha Singh (Cong.), (Hardoi); Shanti Prapanna Sharma (Cong.), (Hardwar); Ramlal Rahi (S.C.) (Cong.), (Hargaon); Smt. Shakuntala Devi (S.C.) (Cong.), (Harora); Sajeevanlal (C.P.I.), (Hasanganj); Mahendra Singh (B.K.D.), (Hasanpur); Asharam Indu (S.C.) (B.K.D.), (Hastinapur); Jai Narayan Singh (Cong.), (Haswa); Bankelal (S.S.P.), (Hata); Premchand Sharma (Cong.), (Hathras); Makhanlal (Cong.), (Hyderabad); Smt. Hameeda Habibullah (Cong.), (Hydergarh); Mrs. Gavatri Devi (B.K.D.), (Iglas); Ram Sevak (S.C.) (J.S.), (Jagdishpur); Ram Avadh (S.C.), (B.K.D.), (Jahangirganj); Shivkumar Pandey (Cong.), (Jaisingpur); Deo Ram (S.C.) (Cong.), (Jakhania); Keshav Chandra Singh (Cong.), (Jalalabad); Jagadamba Prasad (Cong.), (Jalalpur); Chiranjilal (S.C.) (B.K.D.), (Jalesar); Vasishta Narayan Sharma (Cong.), (Jamaniya); Ganesh Datt Bajpeye (Cong.), (Janaralgang); Jitendrapal Singh (B.K.D.), (Jangesari); Manful Singh (S.C.) (B.K.D.), (Jansath); A. R. Govindkher (P.S.P.) (Jarota); Raghunath Singh Varma (Cong.), (Jasrana); Vishwambar Singh Yadav (Cong.), (Jaswantnagar); Jang Bahadur (B.K.D.), (J.S.), (Jaunpur); Dharma Singh (ST.)

OF EDUCATION (Jewar); Firangi (S.C.) (B.K.D.), (Jhangaba); Dr. Jagmehan Varma (B.K.D.), (Jhansi); Jagdish Prasad (S.C.) (Cong.), (Kadipur); Chargetra Brien (B.K.D.), (Kairana); Jagan Prasad Raut (Cong.), (Kairanairi); Bhagaut; Singh (Cong.), (Kaisangani); Kaishna Bajpeve (B.K.D.), (Kalyanpur); Shivasampati (Cong.), (Kalyi); Abdul Salam Shah (Cong.), (Kamalgani); Vasantlal (S.C.) (Cong.), (Kanch); Ajab Singh (B.K.D.), (Kandhala); Biharilal (S.C.) (B.K.D.), (Kanari); Manoharlal (B.K.D.); (Kannur Cantt.); Naunihal Singh (B.K.D.), (Kanh); Goswami Radhakrishna (Cong.), (Karhi); Vasantlaishore Shukla (Cong.), (Karchhna); Sher Singh Dann (J.S.), (Karna Prayag); Bhagelu Singh (S.S.P.), (Karnail Ganj); Neth-Prayag); Bhagelu Singh (S.S.P.), (Karnail Ganj); Nethram Singh (J.S.), (Kasaganj); Narayan Datt Tiwari (Cong.), (Kashipur); Shiv Shankar (Cong.), (Kasimabad); Shriram Singh (J.S.), (Katara Bazar); Bhagwati Prasad Shukla (Cong.), (Katehari); Basanlal (S.C.) (Cong.), (Kanch); Ram Pujan Patel (S.S.P.), (Kaudihar); Ramiakhan Shukla (Cong.), (Kaudiram); Siyaram Gangwar (Cong.), (Kayamganj); Ram Sagar (J.S.), (Kerakat); Krishnadatt Uri Balraj (Cong.), (Khaga); Mahendra Singh (B.K.D.), (Khair); Udit Narayan Sharma (B.K.D.), (Khajuha); Dhanushdhari Pandey (Cong.), (Khalilabad); Raj Bahadur Chand (Cong.), (Khasraha); Virendra Varma (B.K.D.), (Khatauli); Raghuraj Singh (B.K.D.), (Khurja); Nyapal (B.K.D.), (Khekra); Laxmishankar Yadav (Cong.), (Khutan); Raghubir Singh Yadav (B.K.D.), (Kiror); S. B. S. Rotore (Cong.), (Kishni); Manjur Ahmed (S.S.P.), (Kitaur); Puran Chandra (S.C.) (B.K.D.), (Koel); Amarnath Dubey (Cong.), (Kolaslah); Nagina Singh (S.S.P.), (Kopachit); Munshi Lal Chamar (S.C.) (Swa.), (Karhal); Jai Ram (S.S.P.), (Kunda); Mahilal (S.C.) (B.K.D.), (Kundarki); Raj Mangal Pandey (Cong.), (Kushinagar); Abid Ali (Cong.), (Laharpur); Ghasi Ram (S.C.) (Cong.), (Lakhna); Sukhbir (B.K.D.), (Laksar); T. N. Trivedi (Cong.), (Lakhimpur); Triveni (Cong.), (Lalganj); Bhagwat Dayal (Lakumpur); Frivem (Cong.), (Laugun); Bhagwar Dayan Siloiya (S.C.) (J.S.), (Lalitpur); Uday Pratap Singh (J.S.), (Lammhua); Chandra Mohan (Cong.), (Landsdowne); Vasudev (S.S.P.), (Laxmanpur); Ram Lagan Dubey (Cong.), (Laxmipur); Sachidanand (B.K.D.), (Lucknow Cantt.); Imtiyaz Husein (B.K.D.), (Lucknow Central); Vamsha Gopal Sukhla (B.K.D.), (Lucknow Central); Vamsha (B.K.D.), (Lucknow Central); Vams East); D. P. Bora (B.K.D.), (Lucknow West); Choudhury Virendra Kumar (S.C.) (Cong.), (Machhrehata); Motilal (B.K.D.), (Machlisahr); Raja Chitar Singh (Ind.), (Madhavgarh); Ganga Prasad (S.C.) (Cong.), (Mahadeva); Hamsa (S.C.) (B.K.D.), (Maharajaganj); S. S. G. Chhannu Babu (Cong.), (Mahmudabad); Mohanlal (S.C.) (Cong.). (Mahoba); Rampal Trivedi (Cong.), (Mahona); Ram Harakh (Cong.), (Mahshi); Krishnachandra (Cong.), (Mahroni); Malikhan Singh (J.S.), (Mainpuri); Ram Nihor Ray (S.C.) (J.S.), (Majhava); Basantlal (S.C.) (Cong.), (Malihabad); Lalan Sharma (Cong.), (Mallawan). Smt. Siya Dulari (S.C.) (Cong.), (Mankipur); Avaidyanath (H.M.S.), (Maniram); Dharmavir (S.C.) (Cong.), (Manjhanpur); Anant Singh (Cong.). (Mankapur); Gulab Singh (Cong.), (Mansuri); Laxmiraman Acharya (Cong.), (Mant); Raj Kishore (Cong.), (Mariahu); Banarasi (S.C.) (B.K.D.), (Martinganj); Mustafa Kamil Kidwai (Ind.), (Masouli); Shanticharan Pidara (Cong.), (Mathura); Habibur Rahman (B.K.D.), (Mau); Brijraj Singh (Cong.), (Maudaha); Prem Narayan (S.C.) (J.S.), (Mauranipur) : Shambhunarayan Singh (C.P.I.), (Maya); Mohanlal Kapur (J.S.), (Meerut); Uma Datt (Cong.), (Meerut Cantt.); Lalsa Prasad (Cong.), (Mehdawal); Chhangur Ram (S.C.), (C.P.I.-M.), (Mehnagar); Vishram Das (S.C.) (Cong.), (Meja); B. Singh (J.S.), (Mirzapur); Harinath Tiwari (J.S.), (Mishripur); Avadesh Kumar (S.S.P.), (Misrikh); Badri Prasad (S.C.) (Cong.), (Miyaganj); Sher Alikhan (B.K.D.), (Modinagar); Uma Shankar (Cong.), (Moghalsarai); ShyamIal (S.C.) (S.S.P.), (Mohammedabad); Smt. Vidvavati Rataur (Cong), (Mohammedabad); Seva Ram (S.C.) (Cong.), (Mohammedi); Narain Das (Cong.), (Mohanlalganj); Vijay Shankar Singh (Cong.), (Mohammedabad); Alimuddin Rahat (Ind.), (Moradabad City); Ryasat Husein (P.S.P.), (Moradabad Cantt.); Dharmavir Singh (B.K.D.), (Murana); Bhabi (S.S.P.), (Mubarakpur); Deepnarayan Ban (Cong.), (Mujhena); Ishwar Dayal (B.K.D.), (Murad Nagar); Sardar Singh (B.K.D.), (Muzaffarabad); Sayed Murtaja (B.K.D.), (Muzaffar Nagar); Ram Singh (S.C.) Cong.), (Nagal); Atikur Rahman (Cong.), (Nagina); Doongar Singh Visht (Cong.), (Nainital); Kazi Masood (Ind.), (Nakur); Paras Nath Singh (J.S.), (Nanapara); Harivamsha Prasad (Cong.), (Naraini); Lalsa (S.C.) (Cong.), (Nathupur); A. P. Pandey (Cong.), (Nangarh); Baijnath (S.C.) (B.K.D.), (Naurangiya); Anantaram Jaiswal (S.S.P.), (Nawabganj); Kumvar Devendra Singh (B.K.D.), (Nazibabad); Karan Singh (Cong.) (Nighasan); Shivkumar (Cong.), (Nigohi); Sounath Singh (B.K.D.), (Noorpur); Anantram Jaiswal (S.S.P.), (Nawabganj); Ganga Singh (B.K.D.), (Nighouli Kala); Chandra Pratap Narain singh (B.K.D.), (Padrauna); Vir Bahadur Singh (Cong.), (Paniyara); Tirmal Singh (B.K.D.), (Patiyali); Ram Kinkar (S.C.) (B.K.D.), (Patti); Shivanand Nawtiyal (Ind.), (Paudi); Smt. Pyaridevi Gupta (Cong.), (Pharenda); Bamsidhar Mishra (Cong.), (Phooljehad); Ramvachan Yadav (B.K.D.), (Phoolpur); Kanhyalal Valmiki (S.C.) (Cong.), (Phihani); Sayad Alizaheer (Cong.), (Philibhit); Dr. Hari Prasad Sahi (Cong.), (Pipraichi); Narendra Singh (Cong.), (Pithoragarh); Roop Ram (Cong.), (Powai); Ajit Pratap Singh (Cong.), (Pratapgarh); Govind Singh Negi (C.P.I.), (Pratapnagar); Shyam Surath (S.S.P.), (Pratapur); Hari Narain (B.K.D.), (Puranpur); Dularelal (S.C.) (Cong.), (Purwa); Madan Mohan Mishra (Cong.), (Rai Bareilly); Raja Anant Brahmasah (B.K.D.), (Rajgarh); Ram Swarup Varma\* (Ind.), (Rajpur); Shesh (S.C.) (Cong.), (Rasada); Chandra Bhanu Gupta (Cong.), (Rasada); Ram Rattan Prasad (S.C.) (Cong.), (Rasada); Chandra Bhanu Gupta (Cong.), (Rasada); (Rasada); (Rasada); (Rasada); (Rasada); (Rasada); (Rasada); (Rasa (Ranikhet); Swami Prasad Singh (Cong.), (Rath); Ram Prasad (S.C.) (Cong.), (Rokha); Subedar Prasad (S.C.) (J.S.), (Robertsganj); Ramjilal Sahayak (S.C.) (Cong.), (Rohta); J. N. Sinha (Cong.), (Roorkee); Mohammed Nabi (B.K.D.), (Rudauli); Krishna Magan Singh (Cong.), (Rudauli); Dr. Sitaram (S.C.), (Cong.), (Rudrapur);

Ashraf Ali Khan (Cong.), (Sadabad); Rajnath (Cong.), (Sadat); Gaffar Hashmi (Swa.), (Sadullanagar); Ram Kumvar (Cong.), (Sagadi); Jagannath Khanna (J.S.), (Saharanpur); Ramkaran (P.S.P.), (Sahjanwa); Smt. Shanti Devi (B.K.D.), (Sahswan); Ramkaran Yadav (B.K.D.), (Saidpur); Badan Singh Yadav (B.K.D.), (Sakeet); Raghunath Singh (Cong.), (Sakhenkheda); Shiva Bachan (Cong.), (Salempur); Shivaprasad Pandya (S.S.P.), (Salon); Mahmud Hasankhan (B.K.D.), (Sambhal); Smt. Kudsia Begum (Cong.), (Sandila); Jamadar Singh (Cong.), (Sardhana); Raghunath Singh (Cong.), (Sar-vankhera); Guptar Singh (Cong.), (Sareni); Raja Vijay Kumar Tripathi (Cong.), (Sarojini Nagar); Upendra Nath Dikshit (B.K.D.), (Sarsaul); Mahmood Alikhan (Cong.), (Sarsawa); Vishwanath Prasad Singh (Cong.), (Saron); Ramprasad Deshmukh (B.K.D.), (Sasni); Rajendra Pratap Singh (Cong.), (Satao); Schanlal Drusiya (S.C.) (Cong.), (Saughat); Siyaram (S.C.) (J.S.), (Sauran); Babban Singh (Cong.), (Seeyar); Geda Singh (Cong.), (Seorahi); Vamshidar (S.C.) (B.K.D.), (Shahabad); Raja Harihar Singh (Cong.), (Shahabad); Mata Prasad (S.C.), (Cong.), (Shahganj); Umashankar Shukla (J.S.), (Shahjahanpur); Dharma Datt (Cong.), (Shergarh); Mamsha Ram (B.K.D.), (Shikohabad); Basantlal Sharma (Cong.), (Shivpur); Mahatta Prasad Tripathi (B.K.D.), (Shyame Deurwa); Shyamlal Ravat (S.C.) (Cong.), (Sidhauli); Shiv Kailas (S.S.P.), (Sidhaur); Mumtaz Mohamed Khan (Cong.), (Siana); Nirbhay Narain Singh (Ind.), (Sikandarpur); Virendra Swarup (Ind.), (Sikandarbad); Jagdish Gandhi (Ind.), (Sikandra Rao); Ram Charan Tripati, (S.S.P.), (Sirathu); Yadvendra Singh Urf (Cong.), (Sisava); Dr. Shyam Kishore (Cong.), (Sitapur); Ghum Prasad (S.C.) (J.S.), (Sohawal); Rampyare Shukla (J.S.), (Sultanpur); Rajendra Kumar Sharma (J.S.), (Swartanda); Jairam Verma (Cong.), (Tanda); Govind Singh (C.P.I.), (Tehri); Ahmedullah Khan (Swa.), (Thakurdwara); Shitala Prasad Singh (Cong.), (Tharabganj); Mohan Singh (J.S.), (Thiloi); Sant Ram (S.C.) (Cong.), (Tulsipur) Surendra Vikram (Cong.), (Tilhar), Multan Singh (B.K.D.), (Tundala), Ram Rattan Pandey (Cong.), (Umradha), Anvar Ahmed (B.K.D.), (Unnav); Chaturbhuj Sharma (Cong.), (Urai); Narotham Singh (Cong.), (Usehat), Surajlal (J.S.), (Utraula); Krishna Singh (Cong.), (Uttarkashi), Lal Bahadur Singh (Cong.), (Varanasi Cantt.), Shankar Prasad Jaiswal (J.S.), (Varanasi North); Shachindra Nath Baksi (J.S.), (Varanasi South); Shivpal Singh (B.K.D.), (Vichiya); Gajendra Singh (B.K.D.), (Vidhuna); M. C. Paius (Nominated Ind.).

#### UTTAR PRADESH VIDHAN PARISHAD

Strength: 108.

Chairman: Virendra Swarup.

Dy. Chairman: Kr. Devendra Pratap Singh.

An estimate of party position is as follows:—Congress 68; BKD 5; Independent 8; Nationalist Party 10; Jan Sangh 6; Samyukta Socialist 5; Praja Socialist 3; Vacant 4.

#### Elected by Legislative Assembly (39)

Ajai Kumar Basu (Cong.); Istafa Husain (Cong.); Muzaffer Hasant; Smt. Begum Mohsina Khalil Kidwai Muzafer Hasan ; Sint. Beguni Monsina Khalii Kidwai (Cong.); Jagar Nath (S.S.P.); Kailash Prakash (Cong.); Gopal Narain (Cong.), Baldev Singh Arya (Cong.); Nathu Ram (Cong.); Smt. Sunita Chauhan (Cong.); Ram Ghulam (Ind.); Dr. Purshottam Das Kapoor (Jan Sangh); (Shiv Prasad Singh (Cong.); Shakir Ali Siddigi (Cong.); Prateep Narain Tiwari (J.S.); Rajendra

Pal Singh (Cong.); Dr. Ram Chandra Shukla (P.S.P.); Raj Bahadur Dwivedi (B.K.D.); Sita Ram Yadav (J.S.); Chedilal Sathi (Cong.); Ram Naresh Singh (J.S.); Gauri Shanker Rai (Cong.); Virendra Shah (J.S.); Ram Dhari Pandey (Cong.); Ram Avadh Singh (Cong.); Banshi Dhar Shukla (Cong.); Ram Charan Pandey (Cong.); Beni Ram Chandra (P.S.P.); Ram Chandra Singh (Cong.); Ganesh Datta Palmal (J.S.); Pin Singh (Cong.); Sripati Ganesh Datta Palwal (J.S.); Biri Singh (Cong.); Sripati Misra (S.S.P.); Smt. Shivrajwati Nehru (Cong.); Salig Ram Jaiswal (S.S.P.); Smt. Daya Vati (Cong.); Saeedul Hasan (Cong.); Harpal†; Agha Zaidi (Cong.); Nand Kumart; Dev Vashisha (Cong.).

Local Authorities (39) S. P. Gupta (Cong.), (Agra); Sri Nivas (Cong.), (Ali-

garh); Parmanand Sinha (Cong.), (Allahabad); Kr. Devendra Pratap Singh (Cong.), (Gonda); Bindhyachal Rai (Cong.), (Azamgarh-cum-Ghazipur); Uma Shankar (Cong.),

<sup>\*</sup> Election held void by Allahabad High Court.

(Azamgarh-cum-Ghazipur); Shri Krishna Goyal (Cong.), (Badayun-cum-Rampur); Hukum Singh Visen (Cong.), (Bahraich); Ram Milan Singh (P.S.P.), (Basti-cum-(Gorakhpur-cum-Deoria); Radhakrishna Tripati (Cong.), (Basti-cum-Gorakhpur); Mathura Pd. Pandey (Cong.), (Basti-cum-Gorakhpur); Yashpal Singh Azad (Cong.), (Bulandshahr); Jagannath Singh (Cong.), (Deoria-cum-Ballia; Nand Kishore Tiwari (Deoria-cum-Ballia); Heera Singh (B.K.D.), (Faizabad); Balbir Singh (B.K.D.), (Fatehpur-cum-Banda); Sultan Singh Bhandari (Cong.), (Garhwal-cum-Bijnor); Behari Lal Vashishtha (Cong.), (Hamirpur-cum-Jhansi); Chaudhary Mulayam Singh (Cong.), (Jalaun-cum-Elawah); Raja Chandra Bhal Deo (Cong.), (Jaunpur); Har Mohan Singh Yaday (Cong.), (Kanpur-cum-Farukhabad); Virendra Bahadur Singh Chandel (Cong.), (Kanpur-cum-Farukhabad); Shiv Chandra Dixit (Cong.), (Kheri-cum-Sitapur-cum-Hardoi); Ram Ratan Singh (Cong.), (Kheri-cum-Sitapur-cum-Hardoi); Kr. Guru Narain (Cong.), (Lucknow-cum-Unnao-cum-Rae-Bareili); Dr. Ram Narain Pandey (Cong.), (Lucknow-cum-Unnao-cum-Rae-Bareili); Sultan Singh Pachori (B.K.D.), (Manipuri-cum-Etah-cum-Mathura); Nawab Singh (Cong.), (Mainpuri-cum-Etah-cum-Mathura); Premsundar Narain Singh (Cong.), (Meerut-cum-Muzaffarnagar); Pra-bhu Dayal (B.K.D.), (Meerut-cum-Muzaffarnagar); Dau Dayal (Cong.), (Moradabad); Maulana Abdur Rauf (Cong.), (Nainital-cum-Bareily); Kr. Jitendra Prasada (Cong.), (Pilibhit-cum-Shahjahanpur); Kr. Rudra Pratap Singh (Cong.), (Pratapgarh-cum-Sultanpur-cum-Barabanki); Munishwar Dutta Upadhyaya (Cong.), (Pratapgarh-cum-Sultanpur-cum-Bara-Banki); Yashpal Singh (Ind.), (Saha-

ranpur-cum-Dehra Dun); Pyarelal Gupta (Cong.), (Uttar-khand-cum-Tehri Garhwal-cum-Almora); Ishwar Saren Singh (Cong.), (Varanasi-cum-Mirzapur); Prabhu Narain Singh (S.P.), (Varanasi-cum-Mirzapur); Ishwar Saran Singh (Cong.), (Varanasi-cum-Mirzapur).

#### Graduates (9)

Purshottam Das (Nationalist), (Agra); Jagdish Prasad Srivastava (Ind.), (Allahabad); S. N. M. Tripathi (Ind.), (Gorakhpur-cum-Faizabad); Virendra Swarup (Cong.), (Kanpur-cum-Jhansi); Hari Krishna Awasthi (Ind.), (Lucknow); T. P. Misra (Ind.), (Meerut); Sambhoo Nath Agnihotri (N.P.), (Rohilkhand); Jagannath Sharma (Cong.), (Uttarkhand-cum-Kumaun); Hariday Narain Singh (Nationalist), (Varanasi).

#### Teachers (9)

Girish Chandra Tiwari (N.P.), (Agra); Parasnath Singh (N.P.), (Allahabad); R. N. Thakurai (N.P.), (Gorakhpurcum-Faizabad); Jagvir Singh (N.P.), (Kanpur); Maheshwar Pande (N.P.), (Lucknow); Om Prakash Sharma (Ind.), (Meerut); Jagdish Prasad Agarwal (N.P.), (Röhilkhand); Ram Singh (N.P.), (Utarkhand-cum-Kumaun); Harihar Pandey (N.P.), (Varanasi).

#### Nominated (12)

Sultan Alam Khan (Cong.); P. D. Tandon (Cong.); P. N. Mehta (Ind.); L. N. Sarin (Cong.); Smt. Shila Kaul (Cong.); S. N. Ghosh (Ind.); Raja Ram Shastri (Cong.); R. C. Gupta (Cong.); Smt. Premwati Tewari (Cong.); Vacant 4.

#### WEST BENGAL LEGISLATIVE ASSEMBLY\*

Speaker: B. K. Banerjee.
Deputy Speaker: A. L. Majumdar.

Party Position after Mid-term Election, 1969: Communist Party of India (Marxist) 79; Bangla Congress 33; Communist Party of India 30; Forward Bloe 21; Revolutionary Socialist Party 12; Samyukta Socialist Party 9; Socialist Unity Centre 7; Praja Socialist Party 5; Gorkha League 4; Lok Sevak Sangha 4; Workers' Party 2; Forward Block(Marxist) 1; Indian National Congress 55; Progressive Muslim League 3; Indian National Democratic Front 1; Independents—(i) Supported by the United Front 9 (including Speaker) (ii) Other Independents 4; (iii) Nominated under Article 333 of the Constitution 2; Total 282.

Mani Sanyal (C.P.I.), (Alipore); Nani Bhattacharya (R.S.P.), (Alipurduars); Nitai Bhandari (C.P.I.-M.), (Amta); Prafulla Chandra Sen (Cong.), (Arambagh); Daman Chandra Kuiry (F.B.), (Arsha); Dr. Lokes Ghosh (C.P.I.-M.), (Asansol); Sadhan Kumar Sen (C.P.I.), (Ashokenagar); Krishna Chandra Halder (S.C.) (C.P.I.-M.), (Ausgram); Mir Abdus Sayeed (C.P.I.-M.), (Badwiria); Apurba Lal Majumdar (S.C.) (F.B.), (Bagdaha); Smt. Nirupama Chatterjee (C.P.I.-M.), (Bagnam); Abinash Pramanik (S.C.) (C.P.I.-M.), (Balagarh); Gobardhan Majhi (S.T.) (L.S.S.), (Balrampur); Patit Paban Pathak (C.P.I.-M.), (Bally); Jyotibhushan Bhattacharya (W.P.), (Ballyqunj); Mukul Basu (R.S.P.), (Ballurghat); Budheswar Majhi (S.T.) (Cong.), (Banduan); Bireswar Ghosh (C.P.I.), (Bankura); Sunil Basu Ray (C.P.I.-M.), (Barasat); Aswini Kumar Raj (C.P.I.-M.), (Barjora); Kumud Ranjal Mondal (S.C.) (S.S.P.), (Baruipur); Amalendra Lal Roy (R.S.P.), (Barvam); Ashoke Chaudhury (R.S.P.), (Basanti); A. B. Bandopadhyaya (C.P.I.), (Basirhat); Niranjan Mukherjee (C.P.I.-M.), (Behala-East); Rabin Mukherjee

(C.P.I.-M.), (Behala-West); Muhammad Khuda Buksh (Ind.), (Belganga); Lakshmi Charan Sen (C.P.I.-M.), (Belgachia); Krishnapada Ghosh (C.P.I.-M.), (Beliaghata-North); Manoranjan Boral (S.C.), (C.P.I.-M.), (Beliaghata-South); Sanat Kumar Raha (C.P.I.), (Berhampur); Sailindra Nath Adhicary (S.S.P.), (Bhagabangola); Smt. Abha Maiti (Cong.), (Bhagabanpur); A. K. M. Ishaque (Cong.), (Bhangar); Satya Pada Bhattacharyya (R.S.P.), (Bharatpur); Aswini Roy (C.P.I.), (Bhatar); Sitaram Gupta (C.P.I.-M.), (Bhatpara); Jagadish Chandra Das (C.P.I.-M.), (Bippur); Joyram Soren (S.T.) (C.P.I.), (Bippur); Sundar Kumar Naskar (S.C.) (C.P.I.-M.), (Bishnupur-East); Provash Chandra Roy (C.P.I.-M.), (Bishnupur-West); Pannalal Das Gupta (Ind.), (Bolpur); Ajit Kumar Ganguly (C.P.I.), (Bongaon); Bijoy Singh Nahar (C.P.I.-M.), (Bowbazar); Khiti Bhushan Roy Barman (C.P.I.-M.), (Budge-Budge); Debabrata Datta (C.P.I.-M.), (Burdwan-North); Benoy Krishna Chowdhury (C.P.I.-M.), (Burdwan-South); Nikhil Das (R.S.P.), (Burtola); Narayan Naskar (S.C.) (Cong.), (Canning); Subal Chandra Mandal (B.C.), (Chakdah); Sudarson Singh (S.S.P.), (Chatna); Haripada Mukherjee (C.P.I.-M.), (Champdani); Bhabani Mukherjee (C.P.I.-M.), (Chandernagore); Mohamed Abdul Latif (Ind.), (Chandidala); Soroshi Choudhury (C.P.I.-M.), (Chandrakona); Salil Behari Mundle (Cong.), (Chapra); Sambhu Charan Ghose (F.B.), (Chinsurah); Chowdhury Abdul Karim (Cong.), (Chopra); Siddhartha Shankar Ray (Cong.), (Chowringhee); Subodh Gopal Guchhait (P.S.P.), (Contai North); Sudhir Chandra Das (P.S.P.), (Contai South); Bimal Kanti Basu (F.B.), (Cooch-Behar-North); Santosh Kumar Roy (Cong.), (Cooch-Behar-South); Prasenjit Barman (S.C.) (Cong.), (Cooch-Behar-West); Krishnagopal Basu (C.P.I.-M.), (Cossipur); Debendra Nath Das (B.C.), (Dantan); Deo Prakash Rai (G. L.), (Darjeeling); Mrigendra Bhattacharyya (C.P.I.-M.), (Daspur); Bijoy Krishna Samanta

<sup>\*</sup> The Assembly has been dissolved by the Governor on July 30, 1970.

(Cong.), (Debra); Horun-ur-Rashid (M.L.), (Deganga); Somnath Lahiri (C.P.I.), (Dhakuria); Kripasindhu Saha (S.C.) (F.B.), (Dhaniakhali); Anil Dhar Guha Neogi (S.S.P.), (Dhupguri); Abdul Quiyom Molla (C.P.I.-M.), (Diamond Harbour); Animush Mukherjee (Cong.), (Dinhata); Joykesh Mukherjee (C.P.I.-M.), (Domjur); Dr. Md. Ekramul Haque (Cong.), (Domkal); Bhakti Bhusan Mandal (F.B.), (Dubrajpur); Tarun Kumar Sen Gupta (C.P.I.-M.), (Dum Dum); Dilip Kumar Mazumdar (C.P.I.-M.), (Durgapur); Bibhuti Pahari (P.S.P.), (Egra); Bimal Kanti Das (C.P.I.), (English Bazar); Dr. A. S. Mohd. Obaidul Ghani (C.P.I.), (Entally); Jagadananda Roy (S.C.) (Cong.), (Falakata); Jyotish Roy (C.P.I.-M.), (Falta); S. Shahadat Hossain (B.C.), (Farakka); Monoranjan Baksi (B.C.), (Faridpur); Smt. Parul Saha (B.C.), (Gaighata); Lakshan Soren (S.T.) (Cong.), (Gajol); Phakir Chandra Roy (Ind.), (Galsi); Nabadurga Mandal (S.C. (B.C.), (Gangajalqhati); Ahindra Sarker (C.P.I.-M.), (Gengarampur); Arun Sen (C.P.I.), (Garden Reach); Krishna Prasad Dubey (S.C.) (C.P.I.), (Garhbeta-East); Saroj Roy (C.P.I.), (Garhbeta-West); Smt. Nanda Rani Dal (S.C.) (C.P.I.-M. (Ghatal); Mohammad Salimuddin (P.S.P.), (Goalpokhar); Ajit Kumar Biswas (S.C.) (F.B.), (Goghat); Dhanajoy Kar (S.S.P.), (Gopiballavpur); Ganesh Chandra Mondal (S.C.) (R.S.P.), (Gosaba); Nimai Chand Murmu (S.T.) (C.P.I.), (Habibpur); Tarun Kanti Ghosh (Cong.), (Habra); Mrityunjoy Mandal (S.C.) (F.B.), (Hansan) (Habra); Mirtyunjoy Mahdal (S.C.) (F.B.), (Habsah); Charumhir Sarkar (S.C.) (S.S.P.), (Hanskhali); Ahmed Aftabuddin (M.L.), (Hariharpara); Baksh Mohammed Karim (Ind.), (Haringhata); Amales Chandra Majumdar (S.S.P.), (Haripal); Md. Elias Razi (W.P.), (Harischehardrapur); Brajendra Nath Sarkar (S.C.) (B.C.), (Haroa); Abdur Razzaque Khan (C.P.I.), (Hasnabad); Hazari Lal Mandal (S.C.) (C.P.I.), (Hingalganj); Bama Pade Mookherjee (C.P.I.), (Hirapur); Anadi Das (Ind.), (Howrah Central); Nirmal Kumar Mukherjee (Cong.), (Howrah North); Pralaya Talukdar (C.P.I.-M.), (Howrah South); Samarendra-Nath Ojha (L.S.S.), (Hura); Abani Kumar Saha (S.C.) (B.C.), (Indas); Gour Lohar (S.C.) (B.C.), (Indpur); Dr. Zainal Abedin (Cong.), (Itahar); Bikesh Chandra Guhal (C.P.I.-M.), (Jadavpur); Tarapada Dey (C.P.I.-M.) (Jagatballavpur); Ramkrishna Mahato (Cong.), (Jaipur); Azizur Rahman (Cong.), (Jalangi); Naresh Chandra Chakravorty (C.P.I.), (Jalpaiguri); Basudeb Malik (S.C.) (B.C.), (Jamalpur); Amarendra Mondel (S.C.) (Cong.), (Jamuria); Manindra Nath Jana (C.P.I.-M.), (Jangipara); Abdul Haque (R.S.P.), (Jangipur); Debendra Nath Mahata (Cong.), (Jhalda); Panchkari De (B.C.), (Jhargram); Nepal Chandra Roy (Cong.), (Jorabagan) Deokinandan Poddar (Cong.), (Jorasanko); Nandalal Gurung (G.L.), (Jorebunglow); Subodh Banerjee (S.U.C.), Gurung (G.L.), (Joreanngtow); Subodh Baherjee (S.C.C.), (Joynagar); Kalimuddin Shams (F.B.), (Kabitirtha); Hansadhwaj Dhara (Cong.), (Kakdwip); Denis Lakra (S.T.) (Cong.), (Kalchini); Shamsuddin Ahmad (Cong.), (Kaliachak); Syam Prasad Barman (S.C.) (Cong.), )Kaliaganj); S. M. Fazlur Rahman (Cong.), (Kaliganj); Sadhan (Cong.), (C.D.), (C.D.) Gupta (C.P.I.-M.) (Kalighat); Padmalakshmi Subba (G.L.). (Kalimpong); Hare Krishna Konar (C.P.I.-M.), (Kalna); (Kaumpong); Hare Krishna Konar (C.F.I.-M.), (Kaina); Dr. Sunil Kumar Mitra (B.C.), (Kalyanpur); Radhia Ranjan Banerji (C.P.I.-M.), (Kamarhati); K. Jagdish Chandra Sinha (Ind.), (Kandi); Suresh Chandra Sinha (F.B.), (Karandighi); Dr. Nalinaksha Sanyal (Cong.), (Karimpur); Prabir Kumar Mallik (C.P.I.), (Kashipur); Nityananda Takur (Cong.), (Katwa); Budhan Chandra Nityananda Takur (Cong.), (Katwa); Budhan Chandra Tudu (S.T.) (Cong.), (Keshiary); Gangapada Kuar (S.C.) (B.C.), (Keshpur); Ramgati Mondal (S.C.) (C.P.I.-M.), (Ketugram); Paresh Das (S.C.) (B.C.), (Khajuri); Madan Mohan Saha (S.C.) (C.P.I.-M.), (Khanakul); Gobardhan Pakray (S.C.) (S.S.P.), (Khandaghosh); Gyan Singh Sohanpal (Cong.), (Kharagpur); Deben Das (C.P.I.), (Kharagpur Local); Dr. Golam Yazdani (Ind.), (Kharba);

Sadhan Kumar Chakraborty (C.P.I.-M.), (Khardah); Kumarish Chandra Mauliek (S.C.) (R.S.P.), (Khargram); Dr. Niranjan Bhadra (B.C.), (Kotulpur); Kashi Kanta Maitra (S.S.P.), (Krishnagar-East); Amritendu Mukherjee (C.P.I.-M.), (Krishnagar-West); Murari Mohan Halder (S.C.) (B.C.), (Kulpi); Prabodh Purkait (S.C.) (S.U.C.), (Kultali); Dr. Taraknath Chakraburtty (S.S.P.), (Kulti); Abinash Basu (B.C.), (Kumarganj); Pijush Kanti Mukher-Aoinash Dasu (B.C.), (Kumargang), Fijush Kanti Mukher-jee (Cong.), (Kumargram); Jatindra Mohan Roy (S.C.) (Cong.), (Kushonandi); Dr. Radhanath Chattoraj (C.P.I.-M.), (Labhpur); Abdus Sattar (Cong.), (Lalgola); A. H. Besterwitch (S.T.) (R.S.P.), (Madarihat); Radhika Ranjan Pramanik (S.C.) (C.P.I.-M.), (Magrahat-East); Sachindra Nath Mandal (B.C.), (Magrahat-West); Dwarika Prasanna Roy (B.C.), (Mahammad Bazar); Sudhir Chandra Bhandari (C.P.I.-M.), (Maheshtola); Sushil Kumar Dhara (B.C.), (Mahisadal); Jajneswar Ray (S.C.) (Cong.), (Mainaguri); Antoni Topno (S.T.) (Cong.), (Mal); Md. Gofrur Rahaman (Cong.), (Malda); Girish Mahato (L.S.S.), (Manbazar); Nikhilanda Sar (C.P.I.-M.), (Mangalkot); Smt. Ila Mitra (C.P.I.), (Manicktola); Arun Chandra Jha (Cong.), (Manikchak); Birendra Nath Roy (S.C.) (Cong.), (Mathabhanga); Renupada Halder (S.C.) (S.C.U.), (Mathurapur); Kashinath Hazra Choudhury (C.P.I.-M.), Manteswar); Panchanan Let (S.C.) (C.P.I.-M.), (Mayureswar); Amrendra Nath Roy Pradhan (S.C.) (F.B.), Mekigan); Benoy Krishna Konar (C.P.I.-M.), (Memari); Biswanath Mukherjee (C.P.I.), (Midnapur); Kanai Bhowmik (C.P.I.), (Moyna); Biswabrata Roy Chowdhury (B.C.), (Mugbera); Bazle Ahmad (S.U.C.), (Murarai); Mohammad Idris Ali (Cong.), (Murshidabad); Sachindra Mohan Nandy (B.C.), (Nabadwip); Birendra Narayan Ray (Ind.), (Nabagram); Syed Abdul Mansur Habibullah (C.P.I.-M.) (Nadanghat); Budhu Bhagat (S.T.) (Cong.), (Nagrakata); Gopal Basu (C.P.I.-M.), (Naihati); Nil Kamal Sarkar (S.C.) (Cong.), (Nakashipara); Golam Mohiuddin (Ind.), (Nalhati); Bhupal Chandra Panda (C.P.I.), (Nandigram); Banamali Das (S.C.) (C.P.I.-M.), (Nanur); Khan Nasiruddin (M.L.), (Naoda); Mihir Kumar Laha (B.C.), (Narayangarh); Subodh Chandra Maiti (Cong.), (Narghat); Jagatpati Hansda (S.T.) (B.C.), (Nayagram); Jamini Bhuson Saha (C.P.I.-M.), (Noapara); Anil Kumar Mukherjee (F.B.), (Onda); Bibhuti Bhushon Ghosh (F.B.), (Panchla); Deb Narayan Chakrabarty (C.P.I.-M), (Pandua); Gopal Krishna Bhattacharyya (C.P.I.-M.), (Panihati); Smt. Geeta Mukhopadhyaya (C.P.I.), (Panskura East); Ahindra Misra (B.C.), (Panskura West); Tinkori Bouri (S.C.), (B.C.), (Para); Kamakhya Nandan Das Mahapatra (C.P.I.), (Patashpur); Rabin Mondal (Cong.), (Patharpratima); Iswar Chandra Tirkey (S.T.) (Cong.), (Phansidewa); Gouranga Samanta (C.P.I.), (Pingla); Brajo Gopal Neogy (C.P.I.-M.), (Polba); Mollah Humayun Kabir (C.P.I.-M.), (Purbasthali); Santi Mohun Roy (Cong.), (Pursurah); Bibhuti Bhusan Das Gupta (L.S.S.), (Puruliu); Hari Pada Bauri (S.C.) (S.U.C.), (Raghunath-pur); Manash Ray (C.P.I.-M.), (Raiganj); Vacant (Raina); Bhabatosh Soren (S.T.) (B.C.), (Raipur); Rabindra Nath Mandal (C.P.I.-M.), (Rajarhat); Kiran Chandra Ray (S.C.) (Cong.), (Rajganj); Siddheswar Mandal (S.C.) (F.B.) (Rajnagar); Balailal Das Mahapatra (P.S.P.), (Ramnagar); Sasanka Sekhar Mondal (F.B.), (Rampurhat); Nitaipada Sarkar (S.C.) (C.P.I.), (Ranaghat East); Gour Chandra Kundu (C.P.I.-M.), (Ranaghat West); Suchand Soren (S.T.) (C.P.I.-M.), (Ranibandh); Haradhan Roy (C.P.I.-M.), (Raniganj); Bijoy Kumar Banerjee (Ind.), (Rashbehari Avenue); Mohammed Ali (Ind.) (Ratua); Dr. Gobardhan Dingal (C.P.I.-M.), (Sagar); Kuber Chand Haldar (S.C.) (B.C.), (Sagardighi); Amulya Ratan Mahata (B.C.), (Salboni); Sarat Sardar (S.T.) (C.P.I.-M.), (Sandeshkhali); Haran Chand Hazra (S.C.) (C.P.I.-M.), (Sankrail); M. Makshed Ali (Ind.), (Santipur); Jatin Chakravorty

(R.S.P.), (Sealdah); Panchugopal Bhaduri (C.P.I.), (Serampore); Hemanta Kumar Basu (F.B.), (Shampukur); Dr. Kailal Bhattacharya (F.B.), (Shibpur); Sasabindu Bera (F.B.), (Shyampur); Prem Thapa (G.L.), (Siliguri); Dr. Gopal Bandopadhyaya (C.P.I.-M.), (Singur); Dr. Md. Fazle Haque (Cong.), (Sitai); Sukhendu Khan (S.C.) (C.P.I.-M.), (Sonamukhi); Gangadhar Naskar (S.C.) (C.P.I.-M.), (Sonamukhi); Gangadhar Naskar (S.C.) (C.P.I.-M.), (Sonamukhi); A. B. A. Ghani Khan Chawdhury (Cong.), (Sutapur); Jamini Ranjan Sen (C.P.I.), (Swarupnagar); Mohini Mohan Panda (C.P.I.-M.), (Taldangra); Abul Hassan (C.P.I.-M.), (Taltala); Ajoy Kumar Mukherjee (B.C.), (Tamluk); Nathaniel Murmu (S.T.) (R.S.P.), (Tapan); Ram Chatterjee (F.B.-M.), (Tarakeswar); Surat Ali Khan (Cong.), (Tehatta); Mohammed Amin (C.P.I.-M.), (Titagarh); Satyapriya Roy (C.P.I.-M.), (Tollygunge); Akshay Kumar Barma (S.C.) (Cong.), (Tufanganj); Panna Lal Maji (C.P.I.-M.), (Udaynarayan-

pur); Lakhan Bagdi (C.P.I.-M.), (Ukhra); Kalipada Mandal (S.C.) (F.B.), (Uluberia North); Biswanath Das Ghose (F.B.), (Uluberia South); Monoranjan Hazra (C.P.I.-M.) (Uttarpara); Samar Kumar Rudra (C.P.I.-M.), (Vidyasagar); Sasthidas Sarkar (B.C.), (Vishnupur).

Nominated Anglo-Indians: Leslie Henry Franklin; Clifford Hicks.

Abbreviations: F.B.: Forward Bloc; Cong.: Indian National Congress; R.S.P.: Revolutionary Socialist Party; S.S.P.: Samyukta Socialist Party; C.P.I.: Communist Party of India; C.P.I. (M); Communist Party of India (Marxist); G.L.: Gorkha League; I.N.D.F.: Indian National Democratic Front; P.S.P.: Praja Socialist Party; B. Cong.: Bangla Congress; Ind.: Independent; W.P.: Workers' Party; P.M.L.: Progressive Muslim League; R.C.P.I.: Revolutionary Communist Party of India; S.U.C.: Socialist Unity Centre; F.B. (M): Forward Bloc (Marxist); L.S.S.: Lok Sevak Sangha.

#### LOK SABHA

Seats: 523; No. of seats reserved for S.C.: 76; No. of seats reserved for S.T.: 33; Nominated under article 371 of the Constitution by the President: 3.

Speaker: G. S. Dhillon; Dy. Speaker: G. G. Swell. Secretary: S. L. Shakdher.

An estimate of party position is given below:—Congress; 281; Communist: 23; Praja Socialist Party: 18; Jan Sangh: 32; Swatantra: 40; Samyukta Socialist Party: 17; Dravida Munnetra Kazhagam: 25; Independent: 61; Communist (Marxist): 18. Vacant: 6.

#### ANDHRA PRADESH-41

P. Ganga Reddy (Cong.), (Adilabad); B. S. Murthy (Cong.), (Amalapuram—S.C.); M. S. Murthy (Cong.), (Anakapalli); P. Anthony Reddy (Cong.), (Anantapur); Smt. B. Radhabai Ananda Rao (Cong.), (Bhadrachalam S.T.); K. Narayana Rao (Cong.), (Bbilli); N. P. C. Naidu (Cong.), (Chittoor); Y. Easwara Reddy (C.P.I.) (Cuddapah); Kommareddi Suryanarayana (Cong.), (Eluru); Maganti Ankineedu (Cong.), (Gudivada); K. Raghuramaiah (Cong.), (Guntur); N. Sanjiva Reddy (Cong.), (Hindpur); Dr. G. S. Melkote (Cong.), (Hyderabad); M. Thirumala Rao (Cong.), (Kakinada); J. Ramapathi Rao (Cong.), (Karimnagar); R. Dasaratha Rama Reddy (Cong.), (Kavali); Smt. T. Lakshmikanthamma (Cong.), (Khammam); Y. Gadilingana Goud (Swa.), (Kurnool); J. Rameshwar Rao (Cong.), (Mahbubnagar); Y. Ankineedu Prasad (Cong.), (Medak); J. B. Muthyal Rao (Cong.), (Nagarkurnool—S.C.); Mohammad Yunus Saleem (Cong.), (Nalgonda); P. Venkata Subbaiah (Cong.), (Nandyal); D. Balarama Raju (Cong.), (Narasapur); Maddi Sudarsanan (Cong.), (Narasaraopet); B. Anjanappa (Cong.), (Nellore—S.C.); G. S. Reddi (Cong.), (Nirgalguda); M. Narayan Reddy (Ind.), (Niramabad); K. Jaggaiah (Cong.), (Ongole); Viswarai Narasimha Rao (Swa.), (Parvathipuram—S.T.); M. R. Krishna (Cong.), (Peddapalli—S.C.); Dr. D. S. Raju (Cong.), (Rajammet); Bakar Ali Mirza (Cong.), (Secunderabad); G. Venkatswamy (Cong.), (Siddipet—S.C.); N. G. Ranga (Swa.), (Srikakulam); C. Dass (Cong.), (Tirupathi—S.C.); Dr. K. L. Rao (Cong.), (Vijayawada); Tenneti Viswanatharao (Ind.), (Visakhapatam); R. Surender Reddy (Cong.), (Warangal).

#### ASSAM-14

G. G. Swell (Ind.), (Autonomous Districts—S.T.); F. A. Ahmed (Cong.), (Barpeta); Smt. Jyotsna Chanda (Cong.), (Cachar); Jahan Uddin Ahmed (P.S.P.), (Dhubri);

\* Speaker has no party affiliation so long as he is in office.

J. N. Hazarika (Cong.), (Dibrugarh); Dhireswar Kalita (C.P.I.), (Gauhati); Rajendranath Barua (Cong.), (Jorhat); Bedabrata Barua (Cong.), (Kaliabor); N. R. Laskar (Cong.), (Karimganj—S.C.); Basumatari (Cong.), (Kokrujhar—S.T.); Biswanarayan Shastri (Cong.), (Lakhimpur); Hem Barua (P.S.P.), (Mangaldai); Liladhar Kotoki (Cong.), (Nowgong); Vacant (Tezpur).

#### BIHAR-53

T. Ram (Cong.) (Araria—S.C.); Mudrika Sinha (Cong.), (Aurangabad); Bhola Raut (Cong.), (Bagaha—S.C.); Beni Shanker Sharma (J.S.), (Banka); Smt. Tarkeshwari Sinha (Cong.), (Barh); Yogindra Sharma (C.P.I.), (Begusarai); K. N. Tewari (Cong.), (Betiah); Bhagwat Jha Azad (Cong.), (Bhagalpur); Sheopujan Shastri (Ind.), (Bikramganj); Dr. Ram Subhag Singh (Cong.), (Buxar); Ramshekhar Prasad Singh (Cong.), (Chapra); Smt. Vijaya Raje (Ind.), (Chatra); Satya Narain Sinha (Cong.), (Darbhanga); Rani Lalita Rajya Laxmi (Ind.), (Dhanbad); S. C. Besra (Cong.), (Dumka—S.T.); Ram Dhani Das (Cong.), (Gaya—S.C.); Imteyazuddin Ahmad (Cong.), (Giridih); Prabhu Dayal Himatsinghka (Cong.), (Godda); Pandit D. N. Tiwary (Cong.), (Gopalganj); Valmiki Choudhary (Cong.), (Hajipur); M. S. Oberai (Ind.), (Hazaribagh); Bhogendra Jha (C.P.I.), (Jainagar); Chandra Sekhar Singh (C.P.I.), (Jehanabad); N. T. Das (Cong.), (Jamui—S.C.); Shiva Chandika Prasad (Cong.), (Jamshedpur); Sitaram Kesri (Cong.), (Katihar); Kamla Misra "Madhukar" (C.P.I.), (Kesaria); Kameshwar Singh (S.S.P.), (Khagaria); N. F. Horo (Ind.), (Khunti—S.T.); Lakhan Lal Kapur (P.S.P.), (Kishanganj); Kartik Oraon (Cong.), (Lohardaga—S.T.); B. P. Mandal (Ind.), (Madhipura); Shiva Chandra Jha (S.S.P.), (Madhubani); Mrityunjay Prasad (Cong.), (Maharajqanj); Madhu Limaye (S.S.P.), (Monghyr); Bibhuti Mishra (Cong.), (Motihari); Digvijaya Narain Singh (Cong.), (Muzaffarpur); Siddheshwar Prasad (Cong.), (Nalanda); Dr. Surya Prakash Puri (Ind.), (Nawada); Kum. Kamla Kumari (Cong.), (Palamau—S.C.); Ramavatar Shastri (C.P.I.), (Pataa); Shashi Rajan (Ind.), (Pupri); Phani Gopal Sen (Cong.), (Paraa); Iswar Marandi (Cong.), (Rajmahal—S.T.); P. K. Ghosh (Cong.), (Ranchi); Kedar Paswan (S.S.P.), (Rosera—S.C.); Gunanand Thakur (S.S.P.),

(Saharsa); Yamuna Prasad Mandal (Cong.), (Samasti-pur); Jagjivan Ram (Cong.), (Sasaram—S.C.); Bali Ram Bhagat (Cong.), (Shahabad); Kolai Birua (Ind.), (Sing-bhum—S.T.); Nagendra Prasad Yadav (Cong.), (Sitamarhi); Mohammad Yusuf (Cong.), (Siwan).

#### GUJARAT-24

Indulal K. Yajnik (Ind.), (Ahmedabad); Smt. Jayaben V. Shah (Cong.), (Amreli); Narendrasinhji R. Mahida (Cong.), (Anand); S. K. Patil (Banaskantha); Pashabhai C. Patel (Swa.), (Baroda); Prasannavadan Mehta (Cong.), (Bhavnagar); M. B. Rana (Cong.), (Broach); Nanubhai N. Patel (Cong.), (Bulsar—S.T.); Manubhai M. Patel (Cong.), (Bulsar—S.T.); Manubhai M. Patel (Cong.), (Baljibhai Ravjibhai Parmar (Cong.), (Dohad—S.T.); S. M. Solanki (Cong.), (Gandhinagar—S.C.); Piloo Homi Mody (Swa.), (Godhra); N. Dandekar (Swa.), (Jamnagar); V. J. Shah (Swa.), (Junagadh); Pravinsinh Natavarsinh Solanki (Swa.), (Kaira); Tulasidas M. Sheth (Cong.), (Kutch); C. M. Kedaria (Cong.), (Mandvi—S.T.); Ramachandra J. Amin (Swa.), (Mehsana); Dahyabhai R. Parmar (Swa.), (Patan—S.C.); M. R. Masani (Swa.), (Rajkot); C. C. Desai (Swa.), (Sabarkantha); Morarji R. Desai (Cong.), (Surat); H.H. Maharaja Stiraj Megharajji Dhrangadhra (Swa.), (Surendranagar).

#### HARYANA-9

Suraj Bhan (J.S.), (Ambala—S.C.); Abdul Ghani Dhar (Ind.), (Gurgaon); Ram Krishna Gupta (Cong.), (Hissar); Sher Singh (Cong.), (Jhajjar); G. L. Nanda (Cong.), (Kaithal); M. R. Sharma (Cong.), (Karnal); Gajraj Singh Rao (Cong.), (Mahendragarh); Chaudhari Randhir Singh (Cong.), (Rohtak); Choudhary Dalbir Singh (Cong.), (Sirsa—S.C.).

#### JAMMU AND KASHMIR-6

Mohamed Shaffi Qureshi (Cong.), (Anantnag); Syed Ahmad Aga (Cong.), (Baramulla); Inder J. Malhotra (Cong.), (Jammu); Kushok Bakula (Cong.), (Ladakh); G. M. Bakshi (Ind.), (Srinagar); Dr. Karan Singh (Cong.), (Udhampur).

#### KERALA-19

P. C. Adichan (C.P.I.), (Adoor—S.C.); Smt. Suseela Gopalan (C.P.I.-M), (Ambalapuzha); Arangil Sreedharan (P.S.P.), (Badagara); K. Anirudhan (C.P.I.-M), (Chirayinkil); V. Viswanatha Menon (C.P.I.-M), (Ernakulam); A. K. Gopalan (C.P.I.-M), (Kasargod); K. M. Abraham (C.P.I.-M), (Kottayam); Ebrahim Sulaiman Sait (Ind.), (Kozhikode); M. Mohammad Ismail (Ind.), (Manjeri); G. P. Mangalathumadam (P.S.P.), (Mavelikara); P. P. Esthose (C.P.I.-M), (Mavattupuzha); Vacant (Mukundapuram); E. K. Nayanar (C.P.I.-M), (Palghat); P. K. Vasudevan Nair (C.P.I.), (Peermade); C. K. Chakrapani (C.P.I.-M), (Ponnani—S.C.); N. Sreekantan Nair (Ind.), (Quilon); Pattiam Gopalan (C.P.I.-M), (Tellicherry); C. Janardhanan (C.P.I.), (Trichur); P. Viswambharan (P.S.P.), (Trivandrum).

#### MADHYA PRADESH-37

C. D. Gautam (Cong.), (Balaghat); Jhadu Sunder Lal (Ind.), (Bastar—S.T.); N. K. P. Salve (Cong.) (Betul); Yashwant Singh Kushwah (Ind.), (Bhind); Jagannathrao Joshi (J.S.), (Bhopal); A. S. Saigal (Cong.), (Bilaspur); G. S. Mishra (Cong.), (Chhindwara); Manibhai J. Patel (Cong.), (Damoh); Bharat Singh Chowhan (J.S.), (Dhar); Chandulal Chandrakar (Cong. R.), (Durg); J. B. Kripalani (Ind.), (Guna); Ram Awtar Sharma (Ind.), (Gwalior); Chaudhary Nitiraj Singh (Cong.) (Hoshangabad); Prakash Chand Bhanwarlal Sethi (Cong.),

(Indore); Dr. Govind Das (Cong.), (Jabalpur); Smt. Minimata Agam Dass Guru (Cong.), (Janjgir-S.C.); Sursingh (Cong.), (Jhabua—S.T.); Trilokshah Lal Priendra Shah (J.S.), (Kanker—S.T.); Gangacharan Dixit (Cong.), (Khandwa); Shashi Bhushan (Cong.), (Khargon); Vidya Charan Shukla (Cong.), (Mahasamund); M. G. Uikey (Cong.), (Mandla—S.T.); S. S. Kothari (J.S.), (Mandsaur); Atamdas (Ind.), (Morena—S.C.); Lakhan Lal Gupta (Cong.), (Raipur); Kumari Rajni Devi (Cong.), (Raiparh—S.T.); Smt. Padmawati Devi (Cong.), (Rajnandgaon); S. N. Shukla (Cong.), (Rewa); Ram Singh Agarwal (J.S.), (Sagar—S.C.); Devendra Vijay Singh (Cong.), (Satna); Smt. Girija Kumari (Cong.), (Shahdol—S.T.); Dr. Baburao Patel (J.S.), (Shahjapur); Maharaja Bhanu Prakash Singh of Narsinghgarh (Cong.), (Sidhi); Babunath Singh (Cong.), (Suruja—S.T.); Nathu Ram Aberwar (Cong.), (Tikangarh—S.C.); Hukam Chand Kachwai (J.S.), (Ujjain—S.C.); Pandit Shiv Sharma (Ind.), (Vidisha).

#### MAHARASHTRA-45

Anantrao Patil (Cong.), (Ahmednagar); K. M. Asghar Husain (Cong.), (Akola); K. G. Deshmukh (Cong.), (Amravati); B. D. Deshmukh (Cong.), (Aurangabad); Tulsidas Jadhav (Cong.), (Baramati); Asoka Mehta (Cong.), (Bhandara); Nana Ramchandra Patil (C.P.I.), (Bhir); Sonubhau Dagadu Baswant (Cong.), (Bhiwandi); (C.P.I.), (Bombay Central); S. A. Dange (C.P.I.), (Bombay Central); S. A. Dange (C.P.I.), (Bombay Central South); Smt. Tara Sapre (Cong.), (Bombay North-East); Shantilal Shah (Cong.), (Bombay North-West); George Fernandes (S.S.P.), (Bombay South); Y. S. Mahajan (Cong. R.) (Buldana); K. M. Koushik (Swa.), (Chanda); R. M. Hajarnavis (Cong.), (Chimur); H. H. Raja Yeshwantrao M. Mukne (Cong.), (Dahanu—S.T.); Chudaman Ananda Patil (Cong.), (Dhulia); Maharani Vijayamala Rajaram Chhatrapati Bhonsale (Ind.), (Hatkanangale); S. S. Syed (Cong.), (Jalgaon); V. N. Jadhav (Cong.), (Jalna); D. R. Chavan (Cong.), (Karad); Arjun Shripat Kasture (Cong.), (Khamgaon—S.C.); R. K. Khadilkar (Cong.), (Khed); D. K. Kunte (Ind.), (Kolaba); Shankarrao Mane (Cong.), (Kolhapur); Annasaheb P. Shinde (Cong.), (Kopargaon); Tulsiram Dashrath Kamble (Cong.), (*Latur*); Zambru Manglu Kahandole (Cong.), (*Malegaon*); Narendra Ramachandraji Deoghare (Con.), (Nagpur); Venkatrao Tarodekar (Cong.), (Nanded); Tukaram Hurji Gavit (Cong.), (Nandurbar); Bhanudas Ramchandra Kavade (Cong.), (Nasik); T. A. Patil (Cong.), (Osmanabad); Tayappa Hari Sonavane (Cong.), (Pandharpur-S.C.); Shivajirao S. Deshmukh (Cong.), (Parabhani); S. M. Joshi (S.S.P.), (Poona); Nath Pai (P.S.P.), (Rajapur); Dr. A. G. Sonar (Cong.), (Ramtek); Smt. Sharda Mukerjee (Cong.), (Ratnagiri); Y. B. Chavan (Cong.), (Satara); S. D. Patil (Cong.), (Sangli); S. R. Damani (Cong.), (Sholapur); Kamalnayan Bajaj (Cong.), (Wordho); D. S. C. Solapur); Kamalnayan Bajaj (Cong.), (Wardha); Deorao S. Patil (Cong.), (Yeotmal).

#### MYSORE-27

S. B. Patil (Cong.), (Bagalkot); K. Hanumanthaiya (Cong.), (Bangalore); M. N. Naghnoor (Cong.), (Belgaum); Dr. V. K. R. V. Rao (Cong.), (Bellary); Ramachander Veerappa (Cong.), (Bidar—S.C.); B. K. Gudadinni (Cong.), (Bijapur); S. M. Siddayya (Cong.), (Chamarajanagar—S.C.); B. Shankaranand (Cong.), (Chikodi—S.C.); M. Huche Gowda (P.S.P.), (Chikmagalur); J. M. Iman (Swa.), (Chitradurga); Dr. Sarojini Mahishi (Cong.), (Dharwar North); F. H. Mohsin (Cong.), (Dharwar South); Mahadevappa Rampure (Cong.), (Gulbarga); Nuggehalli Shivappa (Swa.), (Hassan); M. V. Krishnappa (Cong.), (Hoskote); Dinkar Desai (P.S.P.), (Kanara); M. V. Rajasekharan (Cong.), (Kanakapura); G. Y. Krishnan (Cong.),

LOK SABHA

(Kolar—S.C.); S. A. Agadi (Cong.), (Koppal); Smt. Sudha V. Reddy (Cong.), (Madhugiri); S. M. Krishna (P.S.P.), (Mandya); C. M. Poonacha (Cong.), (Mangalore); Tulsidas Dasappa (Cong.), (Mysore); Raja Venkatappa Naik (Swa.), (Raichur); J. H. Patel (S.S.P.), (Shimoga); K. Lakkappa (P.S.P.), (Tumkur); J. M. Lobo Prabhu (Swa.), (Udipi).

#### ORISSA-20

D. N. Deb (Swa.), (Angul); Samanendra Kundu (P.S.P.), (Balasore); Dharani Dhar Jena (Swa.), (Bhadrak—S.C.); A. T. Sarma (Cong.), (Bhanjanagar); Chintamani Panigrahi (Cong.), (Bhubaneshwar); R. R. Singh Deo (Swa.), (Bolangir); Janannath Rao (Cong.), (Chatrapur); Srinibas Mishra (P.S.P.), (Cuttack); Raja Kamakhya Prasad Singh Deo Mahindra Bahadur (Swa.), (Dhenkanal); Baidhar Behera (P.S.P.), (Jaipur—S.C.); H. H. Maharaja Pratap Keshari Deo (Swa.), (Kalahandi); Surendranath Dwivedy (P.S.P.), (Kendrapara); G. C. Naik (Swa.), (Keonjhar—S.T.); Ramachandra Ulaka (Cong.), (Koraput—S.T.); Mahendra Majhi (Swa.), (Mayurbhanj—S.T.); Khagapathi Pradhani (Cong.), (Nowrangpur—S.T.); Anirudha Dipa (Swa.), (Phulbani—S.C.); Rabi Ray (S.S.P.), (Puri); S. Supakar (Cong.), (Sambalpur); Debananda Amat (Swa.), (Sundargarh—S.T.).

#### PUNIAB-13

Yajna Datt Sharma (J.S.), (Amritsar); Kikar Singh (Ind.), (Bhatinda—S.C.); Sardar Iqbal Singh (Cong.), (Fazilka); Sohan Singh Basi (Ind.), (Ferozepore); Vacant, (Gurdaspur); Jai Singh (J.S.), (Hoshiarpur); Sardar Swaran Singh (Cong.), (Jullundur); Devinder Singh (Cong.), (Ludhiana); Smt. Mohinder Kaur (Cong.), (Patiala); Chowdhury Sadhu Ram (Cong.), (Phillaur—S.C.); Sardar Bhuta Singh (Cong.), (Rupar—S.C.); Sardarni Nirlep Kaur (Ind.), (Sangrur); G. S. Dhillon (Speaker), (Tarn Taran).

#### RAIASTHAN-23

Bashweshwar Nath Bhargava (Cong.), (Ajmer); Bhola Nath Master (Cong.), (Alwar); Heerji Bhai (Cong.), (Banswara—S.T.); Amrit Nahata (Cong.), (Barmer); Vacant, (Bharatpur); Ramesh Chandra Vyas (Cong.); (Bhilwara); Dr. Karni Singh (Ind.), (Bikaner); Onkar Lal Bohra (Cong.), (Chittorgarh); Naval Kishore Sharma (Cong.), (Dausa); Panna Lal Barupal (Cong.), (Ganganagar—S.C.); Jagannath Pahadia (Cong.), (Hindann—S.C.); Maharani Gayatri Devi of Jaipur (Swa.), (Jaipur); D. N. Patodia (Swa.), (Jalore); Brijraj Singh-Kotah (J.S.), (Jhalawar); R. K. Birla (Ind.), (Jhunjhunu); N. K. Sanghi (Cong.), (Jodhpur); Onkar Lal Berwa (J.S.), (Kota S.C.); N. K. Somani (Swa.), (Nagaur); Sunendra Kumar Tapuriah (Swa.), (Pali); Meetha Lal Meena (Swa.), (Sawai Madhopur—S.T.); S. G. Saboo (Ind.), (Sikar); Jamma Lal Barwa (Swa.), (Tonk—S.C.); Dhuleshwar Meena (Cong.), (Udaipur—S.T.).

#### TAMIL NADU-39

V. Mayavan (D.M.K.), (Chidambaram—S.C.); C. Chittibabu (D.M.K.), (Chingleput); K. Ramani (C.P.I. M), (Coimbatore); V. Krishnamoorthi (D.M.K.), (Cuddalore); C. T. Dhandapani (D.M.K.), (Dharampuram—S.C.); N. Anbuchezhian (D.M.K.), (Dindigul); P. A. Saminathan (D.M.K.), (Gobichettipalayam); C. Muthusami (Swa.), (Karur); M. Deiveckan (D.M.K.), (Kallakuruchi); M. Kamalanathan (D.M.K.), (Krishnagiri); Era Sezhiyan (D.M.K.), (Kumbakonam); Krishnan Manoharan (D.M.K.), (Madras North); Murasoli Maran (D.M.K.), (Madras South); P. Ramamurti (C.P.I. M), (Madurai); K. Subravelu (D.M.K.), (Mayuram—S.C.); S. Kandappan

(D.M.K.), (Mettur); V. Sambasivam (Cong.), (Nagapattinam); K. Kamaraj (Cong.), (Nagercoil); M. K. Nanja Gowder (Swa.), (Nilgiris); A. Durairasu (D.M.K.), (Perambalur—S.C.); H. Ajmal Khan (Swa.), (Periakulam); B. Narayanan (D.M.K.), (Pollachi); R. Umanath (C.P.I. M), (Pudukkottai); S. M. Mohammed Sheriff (Ind.), (Ramanathapuram); K. Rajaram (D.M.K.), (Salem); Thandavan Kiruttinan (D.M.K.), (Sivaganja); S. P. Ramamoorthy (Swa.), (Sivakasi); P. Sivasankaran (D.M.K.), (Sriperumbudur—S.C.); R. S. Arumugam (Cong.), (Tenkasi—S.C.); S. D. Somasundaram (D.M.K.), (Thanjavur); T. D. Ramabadra (D.M.K.), (Tindivanam); Dr. M. Santosham (Swa.), (Tiruchendur); K. Anandan Nambiar (C.P.I. M), (Tiruchirapalli); S. Xavier (Swa.), (Tirunelveli); R. Muthu Gounder (D.M.K.), (Tiruppatur); S. K. Sambandhan (D.M.K.), (Tiruttani); G. Kuchelar (D.M.K.), (Vellore—S.C.); G. Viswanathan (D.M.K.), (Wandiwash).

357

#### UTTAR PRADESH-85

Seth Achal Singh (Cong.), (Agra); Ramji Ram (Ind.), (Akbarpur-S.C.); Shiv Kumar Shastri (Ind.), (Aligarh); Hari Krishna (Cong.), (Allahabad); J. B. S. Bist (Cong.), (Almora); Maulana Ishaq Sambhali (C.P.I.), (Amroha), Vidya Dhar Bajpai (Cong.), (Amelhi); Smt. Savitri Shyam (Cong.), (Aonla); Chandrajit Yadava (Cong.), (Azamgarh); Raghuvir Singh Shastri (Ind.), (Baghpat); K. K. Nayar (J.S.), (Bahraich); Atal (Balrampur); Chandrika Vajpayee (J.S.), Prasad (Cong.), (Ballia); Jageshwar Yadav (C.P.I.), (Banda); Molahu Prasad (S.S.P.), (Bansgaon-S.C.); Ram Sewak Yadav (S.S.P.), (Bara Banki); Brijbhushan Lal (J.S.), (Bareilly); Sheo Narain (Cong.), (Basti-S.C.); Swami Ramanand Shastri (Cong.), (Bijnor—S.C.); Smt. Sushila Rohatgi (Cong.), (Bilhaur); Onkar Singh (J.S.), (Budaun); Surendra Pal Singh (Cong.), (Bulandshahr); Masuriya Din (Cong.), (Chail—S.C.); Nihal Singh (S.S.P.), (Chandauli); Yashpal Singh (Ind.), (Dehra Dun); Bishwanath Roy (Cong.), (Deoria); N. S. Sharma (J.S.), (Domariaganj); Rohanlal Chaturvedi (Cong.), (Etah); Arjun Singh Bhadoria (S.S.P.), (Etawah); Ramkrishna Sinha (Cong.), (Faizabad); Awadesh Chandra Singh (Cong.), (Farukhabad); Sant Bux Singh (Cong.), (Fatehpur); Shiv Charan Lal (Ind.), (Firozabad—S.C.); Bhakt Darshan (Cong.), (Garhwal); Tula Ram (Cong.), (Ghatampur-S.C.); Sarjoo Pandey (C.P.I.), (Ghazipur); Jharkhande Rai (C.P.I.), (Ghosi); Smt. Sucheta Kripalani (Cong.), (Gonda); Avaidyanath (Ind.), (Gorakhpur); Swami Brahmanand (J.S.), (Hamirpur); Prakash Vir Shastri (Ind.), (Hapur); Kinder Lal (Cong.), (Hardoi —S.C.); Nardeo Snatak (Cong.), (Hathras—S.C.); Chowdhury Ram Sewak (Cong.), (Jaluan—S.C.); Rajdeo Singh (Cong.), (Jaunpur); Dr. Sushila Nayar (Cong.), (Jhansi); Ghayoor Ali Khan (S.S.P.), (Kairana); Smt. Shakuntala Nayar (J.S.), (Kaisarganj); S. N. Mishra (Cong.), (Kannauj); S. M. Banerjee (C.P.I.), (Kanpur); Mushir Ahmad Khan (Cong.), (Kasqanj); Maj. Ranjeet Singh (J.S.), (Khalilabad); Balgovind Verma (Cong.), (Kheri); Ram Charan (P.S.P.), (Khurja—S.C.); Ram Dhan (Cong.), (Lalganj-S.C.); Anand Narain Mulla (Ind.). (Lucknow); Nageshwar Dwivedi (Cong.), (Machhlishahr); Dr. Mahadeva Prasad (Cong.), (Maharajganj); Maharaj Singh (Cong.), (Mainpuri); Digambar Singh (B.K.D.), (Mathura); Maharaj Singh Bharti (S.S.P.), (Meerut); Bansh Narain Singh (J.S.), (Mirzapur); Dr. Sankta Prasad (Cong.), (Misrikh—S.C.); Smt. Ganga Devi (Cong.), (Mohanlalganj—S.C.); Om Prakash Tyagi (J.S.), (Moradabad); Latafat Ali Khan (C.P.I.), (Muzaffarnagar); Krishna Chandra Pant (Cong.), (Nainital); Kashi Nath Pandey (Cong.), (Padrauna); Janeswar Misra (S.S.P.), (Phulpur); Mohan Swarup (P.S.P.), (Pillibhit); Dinesh

Singh (Cong.), (Pratapgarh); Smt. Indira Nehru Gandhi (Cong.), (Rai Bareli); Nawabzada Syed Zulfiquar Ali Khan (Swa.), (Rampur); Baij Nath Kureel (Cong.), (Ramsanehighat—S.C.); Ram Swarup (Cong.), (Robertsganj—S.C.); Sunder Lal (Cong.), (Saharanpur—S.C.); Shambhu Nath (Cong.), (Saidapur—S.C.); Vishwa Nath Pandey (Cong.), (Salempur); J. B. Singh (J.S.), (Shahbad); Prem Kishan Khanna (Cong.), (Shahjahanpur); Sharda Nand (J.S.), (Sitapur); Kedarnath Singh (Cong. R.), (Sultapur); Lt.-Col. H. H. Maharaja Manabendra Shah of Tehri Garhwal (Cong.), (Tehri Garhwal); Krishna Dev Tripathi (Cong.), (Unnao); Satya Narain Singh (C.P.I. M), (Varanasi).

#### WEST BENGAL-40

Indrajit Gupta (C.P.I.), (Alipore); Amiya Nath Bose (Ind.), (Arambagh); Deven Sen (S.S.P.), (Asansol); Bhagaban Das (C.P.I. M), (Ausgram—S.C.); Jatindra Nath Pramanik (Cong.), (Balurghat—S.C.); J. M. Biswas (C.P.I.), (Bankura); Dr. Ranen Sen (C.P.I.), (Barasat); Mohammad Ismail (C.P.I. M), (Barrackpore); Amjad Ali (Ind.), (Basirhat); Tridib Chaudhuri (Ind.), (Berhampore); Anil K. Chanda (Cong.), (Bholpur); Dr. Sirir Kumar Saha (Cong.), (Birbhum—S.C.); N. C. Chatterjee (Ind.), (Burdwan); H. N. Mukherjee (C.P.I.), (Calcutta North East); A. K. Sen (Cong.), (Calcutta North West); Ganesh Ghosh (C.P.I. M), (Calcutta South); Samar Guha (P.S.P.), (Contai); Benoy Krishna Daschowdhury (Ind.), (Darjeeling); Jyotirmoy Basu (C.P.I. M), (Diamond Harbour); Parimal Ghosh (Cong.), (Ghatal); Bijoy Modak (C.P.I. M), (Hooghly); Krishna Kumar Chatterjee (Cong.), (Howrah); B. N. Katham (Cong.), (Jalpaiguri—S.T.); Hazi Lutfal Haque (Cong.), (Jangipur); Amiya Kumar Kisku (Ind.), (Jhargram—S.T.); Chitta Ranjan Ray (Ind.), (Joynagar—S.C.); Dwaipayan Sen (Cong.), (Katwa); Smt. Ila Pal Choudhuri (Cong.), (Krishnanagar); Smt. Uma Roy (Cong.), (Malda); Kansari Halder (C.P.I.), (Mathurapur—S.C.); V. K. Krishna Menon (Ind.), (Midnapore); Syed Badrudduja (Ind.), (Murshidabad); P. R. Thakur (Ind.), (Nabadwip—S.C.); Bhajahari, Mahato (Ind.), (Purulia); C. K. Bhattacharyya (Cong.), (Raiganj); Bimalkanti Ghosh (Cong.), (Fishnupur—S.C.).

#### DELHI-7

Ram Gopal Shalwale (J.S.), (Chandni Chowk); Kanwar Lal Gupta (J.S.), (Delhi Sadar); Hardayal Devgun (J.S.), (East Delhi); R. S. Vidyarthi (J.S.), (Karol Bagh—S.C.); M. L. Sondhi (J.S.), (New Delhi); Chowdhry Brahm Perkash (Cong.), (Outer Delhi); Bal Raj Madhok (J.S.), (South Delhi).

#### HIMACHAL PRADESH-6

Vikram Chand Mahajan (Cong.), (Chamba); Prem Chand Verma (Cong.), (Hamirpur); Hem Raj (Cong.), (Kangra); Virbhadra Singh (Cong.), (Mahasu); Lalit Sen (Cong.), (Mandi); Pratap Singh (Cong.), (Simla—S.C.).

#### MANIPUR-2

M. Meghachandra (C.P.I.), (Inner Manipur); Paokai Haokip (Ind.), (Outer Manipur—S.T.).

#### TRIPURA-2

H.H. Maharaj Manikya Bahadur of Tripura (Cong.), (Tripura East—S.T.); J. K. Choudhury (Cong.), (Tripura West).

ANDAMAN AND NICOBAR ISLANDS—1 K. R. Ganesh (Cong.).

# CHANDIGARH-1

Shri Chand Goyal (J.S.).

# LACCADIVE, MINICOY AND AMINDIVI ISLANDS—1

P. M. Saveed (Ind.).

#### DADRA AND NAGAR HAVELI-1

Sanjibhai Rupjibhai Delkar (Cong.).

#### GOA, DAMAN AND DIU-2

Janardhan Jagannath Shinkre (Ind.), (Panaji); Erasmo de Sequeira (Ind.), (Marmugoa).

#### NORTH EAST FRONTIER TRACT-1\*

D. Ering (Cong.).

#### NAGALAND-1

S. C. Jamir (Cong.).

#### PONDICHERRY-1

N. Sethuramane (Cong.).

#### ANGLO-INDIANS-2\*

Frank Anthony (Ind.); A. E. T. Barrow (Ind.).

#### ESTIMATES COMMITTEE (1970-71)

Chairman: M. Thirumala Rao; Members: C. Das, B. R. Kavade, Gayur Ali Khan, Mushir Ahmed Khan, Masuria Din, N. K. Somani, Nagendra Prasad Yadav, S. A. Agadi, Supakar, Bedabrat Barua, Mrs. Ila Pal Chaudhury, Dalbir Singh, D. N. Deb, D. Kiruttinan, S. Kundu, Vijay Modak, C. Muthuswamy, Onkar Singh, S. B. Patil, S. Pradhani, S. D. Puri, Ram Swarup, Narayan Reddy, Ishaq Shambali, Sashi Bhushan, J. B. Singh, S. N. Singh, K. N. Tiwari, R. C. Vyas.

#### PUBLIC ACCOUNTS COMMITTEE (1970-71)

Chairman: A. B. Vajpayee; Members: Lok Sabha: J. M. Biswas, Narendra Ramchandraji Deoihare, C. T. Dhandapani, Bimalkanti Ghosh, Mrs. Sucheta Kripalani, Bhola Nath Master, Raja Venkatappa Naik, Chaudhary Nitiraj Singh, J. H. Patel, Mrs. Savitri Shyam, Ramsekhar Prasad Singh, Balgovind Varma, G. Venkataswamy, P. Viswambharan. Rajya Sabha: S. B. Bobdey, Banka Behari Das, P. C. Mitra, Niranjan Varma, Mrs. Vidyawati Chaturvedi, Dhillai Villalan, Sheel Bhadra Yajee.

# PUBLIC UNDERTAKINGS COMMITTEE (1970-71)

Chairman: M. B. Rana; Members: Lok Sabha: Indrajit Gupta, Kindar Lal, Vishwa Nath Pandey, T. A. Patil, P. M. Sayeed, Digvijaya Narain Singh, S. D. Somasundaram, Surendra Kumar Tapuriah, Om Prakash Tyagi. Rajya Sabha: Syed Ahmed, Balachandra Menon, Dahyabhai V. Patel, B. C. Pattanayak, Kota Punnaiah.

<sup>\*</sup> Nominated by the President.

# RAJYA SABHA

Total No. of seats: 240.

Chairman: G. S. Pathak; Dy. Chairman: B. D. Khobaragade; Secretary: B. N. Banerjee; Joint Secretary: S. S. Bhalerao.

An estimate of party position in the Rajya Sabha is: Congress 88; Congress (O) 42; Jana Sangh 15; Swatantra 12; C.P.I. 9; S.S.P. 8; D.M.K. 7; C.P.I. (M) 8; P.S.P. 5; Muslim League 4; B.K.D. 3; Akali Dal 3; Republican 2; Jana Congress 2; Forward Bloc 1; Forward Bloc (M) 1; Bangla Congress 1; R.S.P. 1; S.M.S. 1; Telengana Front 1; I.S.P. 1; Independents and others 24; Vacancies 1.

#### ANDHRA PRADESH-18

M. V. Bhadram; J. C. Nagi Reddi; Mudumala Henry Samuel; Akbar Ali Khan; V. B. Raju; Kota Punnaiah; Venigalla Satyanarayana; M. Anandam; Yashoda Reddy; Chandramouli Jagarlamudi; Gaddam Narayana Reddy; M. Srinivasa Reddy; K. L. N. Prasad; K. P. Mallikarjunudu; Katragadda Srinivas Rao; K. V. Raghunatha Reddy; D. Sanjivayya; Sanda Narayanappa.

#### ASSAM- 7

Usha Barthakur; Mahitosh Purkayastha; Baharul Islam; Golap Barbora; Bipinpal Das; Emonsing M. Sangma; Sriman Prafulla Goswami.

#### BIHAR-22

Suraj Prasad; Chaudary A. Mohammad; Shyamnandan Mishra; Balkrishna Gupta; Anant Prasad Sharma; R. P. Khaitan; Pratul Chandra Mitra; Bhupendra Narayan Mandal; Mahabir Dass; Sheel Bhadra Yajee; Shishir Kumar; Dharam Chand Jain; Jagdambi Prasad Yadav; Rajendra Pratap Sinha; Abdul Qaiyum Ansari; Bhola Prasad; Lalit Narayan Mishra; Rudra Narayan Jha; Rajendra Kumar Poddar; Sitaram Singh; Awadheshwar Prasad Sinha; Sri Kant Mishra.

#### GUJARAT-11

Shamprasad Rupshanker Vasavada; Biharilal Naranji Antani; Devdatt Kumar Kikabhai Patel; Dahyabhai V. Patel; Suresh J. Desai; U. N. Mahida; Pushpaben Janardanrai Mehta; Jaisukhlal Hathi; Khemchandbhai Shomabhai Chavda; Tribhovandas Kisibhai Patel; Manubhai Shah.

#### HARYANA-5

Dev Dutt ; Neki Ram ; Bhagwat Dayal ; Krishan Kant ; Sultan Singh.

#### IAMMU & KASHMIR-4

Om Mehta ; Gulam Nabi Untoo ; Syed Hussain ; Tirath Ram Amla.

#### KERALA-9

Vacant; Hamid Ali Schamnad; Balachandra Menon; K. P. Subramania Menon; G. Gopinathan Nair; B. V. Abdulla Koya; K. Mathew Kurian; K. Chandrasekharan; S. Kumaran.

# MADHYA PRADESH-16

S. C. Angre; Syed Ahmad; Bhawaniprasad Tiwary; Vidyawati Chaturvedi; Narayan Prasad Chaudhuri; Shankar Pratap Singh; Balram Das Durgadas; Vijaya Bhushan Deosharan; N. K. Shejwalkar; Ram Sahai; Shyamkumari Devi; Chakrapani Shukla; Swai Singh Sisodia; A. D. Mani; Nand Kishore Bhatt; Niranjan Varma.

#### MAHARASHTRA-19

Narayan Ganesh Goray; Sarojini Krishnarao Babar; Bidesh Tukaram Kulkarni; Babubhai M. Chinai; M. C. Chagla; Tryambak Gopal Deshmukh; Vithalrao Tukaram Nagpure; Mohan Manikchand Dharia; Vimal Punjab Deshmukh; Arvind Ganesh Kulkarni; Pandharinath Sitaramji Patil; Kodardas Kalidas Shah; Gulabrao Raghunathrao Patil; Shankarrao Bajirao Bobdey; Jayant Shridhar Tilak; Shriniwas Ganesh Sardesai; Bhaurao Krishnarao Gaikwad; B. D. Khobragade; B. S. Saynekar.

#### MYSORE-12

M. D. Narayan; Malappa Lingappa Kollur; K. Nagappa Alva; Mulka Govinda Reddy; Patil Putappa; M. S. Gurupadaswami; B. T. Kemparaj; U. K. Lakshmana Gowda; N. Sri Rama Reddy; K. S. Malle Gowda; B. P. Nagaraja Murthy; Sherkhan.

#### NAGALAND-1

Melhupra Vero.

#### ORISSA-10

Brahmananda Panda; Binoy Kumar Mahanti; Bhabhani Gharan Pattanayak; Bira Kesari Deo; Surajmal Saha; Krishna Chandra Panda; Nandini Satpathy; Lokanath Misra; Sundar Mani Patel; Banka Behary Das.

#### PUNJAB-7

Narindar Singh Brar; Rattan Lal Jain; Bhupinder Singh; Gurcharan Singh Tohra; Raghbir Singh Panjhazari; Inder Kumar Gujral; Gurmukh Singh Musafir.

#### RAJASTHAN-10

M. K. Mohta; Sundar Singh Bhandari; Jagdish Prasad Mathur; Mangladevi Talwar; Narayani Devi Manaklal; Mohamod Usman; Ram Niwas Mirdha; Kumbha Ram Arya; Balkrishna Kaul; Dalpat Singh.

#### TAMIL NADU-18

K. Sundaram; T. K. Srinivasan; N. R. Muniswamy; Kanchi Kalyanasundaram; G. A. Appan; G. P. Somasundaram; M. Ruthnaswamy; S. S. Mariswamy; M. R. Venkataraman; N. Ramakrishna Iyer; S. S. Rajendran; T. V. Anandan; T. Chengalvaroyan; R. T. Parthasarathy; A. K. A. Abdul Samad; K. S. Ramaswamy; Thillai Villalan; S. A. Khaja Mohideen.

#### UTTAR PRADESH-34

Bindumati Devi; Dattopant Thengari; Ganeshi Lal Chaudhary; Sukhdev Prasad; Ajit Prasad Jain; C. D. Pande; Pitamber Das; Mohan Lal Gautam; Nawal Kishore; Mahavir Tyagi; Mustafa Rashid Shervani; Jogendra Singh; Triloki Singh; Prem Manohar; Hayatullah Ansari; Sitaram Jaipuria; Phool Singh; Nageshwar Prasad Shahi; Kalyan Chand; T. N. Singh; Uma Shankar Dikshit; Chandra Shekhar; Prithwinath; Man Singh Varma; Rajnarain; Z. A. Ahmad; Godey Murhari; Hira Vallabh Tripathi; M. Asad Madni; Shyam Lal Yadav; Mahabir Prasad Shukla; Inder Singh; Arjun Arora; Shyam Dhar Mishra.

#### WEST BENGAL-16

Sasankasekhar Sanyal; Suhrid Mullick Choudhury; Arun Prakash Chatterjee; R. S. Doogar; Biren Roy; Dwijendralal Sen Gupta; Bhupesh Gupta; Kalyan Roy; Debiprasad Chattopadhyaya; Chitta Basu; Purabi Mukhopadhyay; Salil Kumar Ganguli; Niren Ghosh; Mriganka Mohan Sur; Pranab Kumar Mukherjee; Manoranjan Roy.

#### DELHI-3

Bhai Mahavir; Shanta Vasisht; Lal K. Advani.

#### HIMACHAL PRADESH-3

Roshan Lal; Salig Ram; Satyavati Dang.

#### MANIPUR-1

Sinam Krishnamohan Singh.

#### PONDICHERRY-1

S. Sivaprakasam.

#### TRIPURA-1

Dr. Triguna Sen.

#### NOMINATED BY THE PRESIDENT-12

Rasheeduddin Khan; M. N. Kaul; Uma Shankar Joshi; Jairamdas Daulatram; M. C. Setalvad; K. Ramiah; Maragatham Chandrasekhar; Ganga Sharan Sinha; H. R. Baehchan; G. Sankara Kurup; Joachim Alva; Saiyid Nurul Hasan.

# SOME POLITICAL PARTIES\*

# AKHIL BHARAT HINDU MAHASABHA

(Hindu Mahasabha Bhawan, Mandir Marg, New Delhi 1.)

THE aim of the Hindu Mahasabha is to establish a really democratic Hindu State in Bharat, based on the culture and tradition of Hindu Rashtra and to re-establish Akhand Bharat by all constitutional means.

The 1967 Election Manifesto was given in the 1967 Directory.

#### Foreign Policy

On foreign policy, the Sabha stands for befriending all neighbouring Hindu nations such as Nepal, Sikkim, Bhutan, Burma and Ceylon and calls for non-involvement and non-interference in the affairs of other countries.

The manifesto also stands for the liberation of Indian territory from the control of foreign Powers by "all possible means."

The Sabha wants India's withdrawal from the Commonwealth so that India becomes a "really independent country, free from British influence in our internal and external policies."

The Sabha wants the Government to manufacture nuclear weapons for defence purposes "without being bullied by our enemies."

#### Language Policy

On language, the Sabha stands for resisting all attempts made to dislodge Hindi from the place it has been given in the Constitution as a Union language.

The Sabha wants all administrative work to be conducted in the language which the masses speak.

On Kashmir, the Sabha stands for the abrogation of Article 370 of the Constitution which gives special status to that State.

It also wants the imposition of "effective curbs" on the activities of foreign Christian missionaries.

The Sabha has also promised a ban on cow slaughter. More details were given in the 1968 Directory.

President: Pt. Brijnarayan Brajesh. Total membership of Party: 785,000.

# ALL INDIA FORWARD BLOC

(Central Office, 88, North Avenue, New Delhi.)

Gen. Secretary's Office, Chhindwara, M.P.

Chairman: Hemanta Kumar Bose, M.L.A.

General Secretary : R. K. Haldulkar.

The party advocates the nationalisation of all key industries in the country, equitable redistribution of land with special provision to allot land to the landless peasants, fair wage to the workers, right to strike and full trade union rights to the workers, appointment of a Commission to go into the economic condition of kisans and suggest

means of greater production of foodgrains to meet the deficit, action to vacate aggression of China on the northern frontiers of the country, free education to the students upto the degree level and up-to-date training of our defence forces to meet any aggression from outside.

The Party is opposed to any talks with Pakistan over the Kashmir issue and wants military action to vacate the Pak-occupied portion of Jammu and Kashmir.

<sup>\*</sup> The articles in this section are based on the material provided by the parties themselves-

# BHARATIYA JAN SANGH

(Vithal Bhai Patel Bhavan, New Delhi)

President: Atal Bihari Vajpayee. Secretary: J. P. Mathur.

Total membership of party in country: more than 25,00,000.

Has branches all over India including NEFA, Tripura & Kashmir.

#### AIMS AND OBJECTS

Believes in Integral Humanism as opposed to Marxist economic interpretation of history and the individual. Is pledged to checkmate spread of Communism. Stands for Nationalism and Democracy. Stands for determination of limitations on individual property in accordance with the needs and life-values of the society and individual. Does not regard the right to property as absolute and immutable. Looks upon India as an organic entity—geographically, culturally and historically. Have faith in one country, one people, one culture and one nation. Special facilities to backward sections of the society including scheduled castes and scheduled tribes.

Considers concentration of economic power — whether in the hands of some private individuals or groups or the State — as negation of economic democracy. Stands for the establishment of an independent Monitary Authority like the Legislative, Executive and Judiciary, by upgrading the Reserve Bank as an independent body. Attainment of self-sufficiency in food production and guaranteeing remunerative prices to the grower. Adequate credit facilities to peasants and tillers by banks and altering the concept of creditworthiness in this context. Strict implementation of land ceiling laws and distribution of surplus unoccupied cultivable waste land among landless scheduled castes and scheduled tribes and ex-servicemen. Indianisation of foreign owned tea, drugs, soap, matches, vegetable products, jute and eigarettes industries and nationalisation of foreign banks.

Elementary education through mother tongue, secondary and higher education through regional language with Hindi as a compulsory subject. Hindi speaking sections to study one Indian language.

Regards as out dated the assumption that the world was divided in two power blocs and India having to align with one of these. Stands for liberation of Indian territory under occupation of China and Pakistan. Stands for recognising Israel and Formosa with full-fledged diplomatic relations. Gives high priority to defence. In wake of the Congress split, stands for formation of coalition governments both at the Centre and the states in co-operation with nationalist democratic parties and individuals on the basis of a minimum common programme of public welfare.

# COMMUNIST PARTY OF INDIA (MARXIST)

(Central Committee Office: 49, Lake Place, Calcutta 29.)

The Communist Party of India (Marxist), is the party of the Indian working class wedded to the ideology of Marxism-Leninism with the aim of building Socialism and Communism in India through the establishment of a People's Democratic State as the first stage.

The Communist Party has today grown to become one of the major opposition parties in the country.

The Party's Programme based on Marxism-Leninism envisages the replacement of the present State and Government by a State of People's Democracy and a Government led by the working class on the basis of a firm worker-peasant alliance.

The Programme lays emphasis on the task of carrying out radical agrarian and other reforms in the interests of the peasantry and includes eradication and summary expulsion of the foreign monopoly capital from our national economy and thus free the economic, political and social life of our people from all its disastrous influences.

The Party is represented in the Lok Sabha and Rajya Sabha and is recognized in the five States of Kerala,

West Bengal, Tamil Nadu, Tripura, and Dadra and Nagar Haveli by the Election Commission.

The structure of the Party is the Branch in the factory, other establishments and villages, with the Local or Town committee above it, then the Taluk Committee, the District Committee with its Secretariat, the State Committee with its Secretariat and the Central Committee with its Polit Bureau.

The Party runs a central English weekly "People's Democracy" and a Hindi weekly "Swadhinta", and has dailies in Kerala (Deshabhimani), West Bengal (Ganashakti and Kisan Mazdur (Urdu) and weeklies in Tamil Nadu (Theekkathir), Karnataka (Aikya Ranga), West Bengal (Desh Hitaishi), Punjab (Lok Lehar) and in Andhra Pradesh (Prajashakti).

Polit Bureau: General Secretary: P. Sundarayya; Members: E. M. S. Namboodripad; A. K. Gopalan; P. Ramamurti; M. Basavapunniah; B. T. Ranadive; Promode Dasgupta; Jyoti Basu and Harkishan Singh Surieet.

The 1967 Election Manifesto was given in the 1967 Directory.

# COMMUNIST PARTY OF INDIA

(7/4, Asaf Ali Road, New Delhi.)

Chairman: S. A. Dange; General Secretary: C. Rajeswara Rao.

Aims & Objects :

Establishment of a socialist society in India and ending all forms of exploitation of man by man. Achievement of power by the working people and establishment of proletarian statehood, based on socialist democracy.

Creation of national democratic front.

The Policy:

Reorganise administration and services in such a way as to make them subordinate and responsible to popularly elected State organs at all levels.

Grant universal and equal suffrage to all male and female citizens of India who have attained the age of 18 years in elections to Parliament, legislative assemblies and local bodies through secret ballot; introduce proportional representation in all elections and right of recall of elected representatives by majority of electors.

Abolish second chambers and such reactionary, out dated institutions and practices as the post of State Governors, rule by ordinances, detention without trial and privy purses and other privileges of the princes.

Enforce directive principles of the Constitution like right to work, living wage, free education, social security, etc.

Ensure inviolability of person and domicile, unhampered freedom of conscience, religious belief and worship, speech, press, assembly and organisation, strike and combination, freedom of movement and occupation. Separate judiciary from the executive. Ensure simpler, cheaper and speedier justice within reach of the common man. Provide free legal aid for poorer sections of population.

Reorganise taxation system and base it on the principle of capacity to bear burden.

Introduce state-trading in essential commodities like foodgrains, cloth, etc. and supply them to people at reasonable prices.

National minimum wage should be fixed and workers should be assisted in securing fair wages which should be above the minimum. Sliding scale of D.A., bonus, gratuity and holidays with pay.

Guarantee full trade union and democratic rights.

All land reform measures be implemented with the help of popular committees of accredited representatives of peasants and agricultual labourers. Financial and technical aid also be distributed in a similar way.

Introduce graded land tax based on income, exempting all uneconomic holding from tax.

Organise multipurpose cooperatives to provide cheap credit, seed, manure, pesticides, etc. to peasants and ensure remunerative prices for their products. Provide cheap irrigation facilities; start agro-industries in the countryside.

Ensure adequate wages and living conditions for agricultural labourers.

More details are given in the 1968 edition of the Directory.

The 1967 Election Manifesto was given in the 1967 Directory.

# DRAVIDIAN PROGRESSIVE FEDERATION

(SO CALLED D.M.K.)

(MADRAS.)

President: M. Karunanidhi; General Secretary: V. R. Nedunchezhian; Assistant General Secretaries: K. Rajaram, M.P., Kanchi Manimozhiyar; Treasurer: M. G. Ramachandran, M.L.A.

Aims and Objects:

The object of the Dravidian Progressive Federation

(D.M.K.) is the upliftment and advancement of the Tamilians by peaceful and constitutional means, to eradicate social injustice, to establish a socialistic society, to avoid Hindi as Official language and to attain self autonomy for the States with a loose federation at the Centre.

# INDIAN NATIONAL CONGRESS (ORGANIZATION)

(7, Jantar Mantar Road, New Delhi.)

President: S. Nijalingappa.

General Secretaries: Sadiq Ali; P. Venkata Subbaiah, M.P.; S. D. Mishra, M.P.

Treasurer : S. K. Patil.

Working Committee: S. Nijalingappa, Morarji Desai, K. Kamraj, S. K. Patil, Atulya Ghosh, Dr. Ram Subhag Singh, C. B. Gupta, Sadiq Ali, Hitendra Desai, S. D. Mishra, P. C. Chunder, N. Sanjiva Reddy, Ashok Mehta, Girdharilal, Abid Ali, Rajesh Sharma, Dr. Nagappa Alva, Smt. Sucheta Kripalani, S. N. Mishra, P. Venkata Subbaiah, K. C. Abraham.

Central Parliamentary Board: S. Nijalingappa, Morarji Desai, C. B. Gupta, K. Kamaraj, Dr. Ram Subhag Singh, S. K. Patil, Sadiq Ali.

Central Disciplinary Action Committee: S. Nijalingappa, Morarji Desai, C. B. Gupta, S. K. Patil, Atulya Ghosh, Dr. Ram Subhag Singh.

Chairman, Congress Party, Parliament: Morarji Desai. Leader, Congress Party, Parliament: Dr. Ram Subhag Singh (Lok Sabha); S. N. Mishra (Rajya Sabha).

Deputy Leaders, Congress Party, Parliament: D. S. Raju (Lok Sabha); M. S. Gurupadaswamy (Rajya Sabha).

Secretaries: Manubhai Patel, M. N. Nagnoor (Lok Sabha); G. L. Choudhary (Rajya Sabha).

Treasurer: Kamal Nayan Bajaj.

#### GANDHINAGAR SESSION

The Indian National Congress (O) is led by Mr. S. Nijalingappa. The 73rd plenary session of the Congress was held at Gandhinagar in Ahmedabad from 21st to 22nd December 1969. The resolutions on economic and foreign policies, communal harmony and on the unemployment problem were all adopted unanimously on the final day of the session.

Economic and Social Policy Resolution

The Congress commitment to socialism involves adherence to a socialist process of change and emergence of a socialist society as the end product. The public sector must continue to expand and has to be efficient, productive and organised to strengthen the democratic growth of society. Immediate steps have to be taken to create a competent cadre to manage public undertakings. The private sector has also to function with a sense of social responsibility and justify itself by improved productivity, technological innovations and managerial competence and continuous research.

The tillers of the soil have to be made owners by a targetted date. Implementation of land reforms has to be speeded up. The insurance of crop and cattle is an absolute

necessity.

The Congress welcomes the nationalisation of banks in furtherance of the declared policy of the Congress and urges the need for urgent follow-up measures. It demands clear steps in which credit facilities will be provided to small farmers, artisans, low or middle classes, small-scale entrepreneurs and professions to meet their production and development requirements. Effective steps have to be taken to bring the benefits of this cooperative movement to the submerged sections of the community.

The industrial and other workers have to be helped to organise themselves in healthy trade unionism shorn of interference of employers. The economic and educational advancement of the scheduled caste, and scheduled tribes

has to move forward at a faster rate.

The Congress is firmly of the opinion that the privileges and privy purses enjoyed by the princes should end forthwith.

The Congress will work to abridge the sharp inequalities in rural and even more in urban areas.

Expansion of the housing programme for the masses of people requires setting up of a revolving fund annually expanded to carry forward building programme. The Congress reiterates its resolve to bring about prohibition within the period specified by the AICC in Goa.

The religious or linguistic minorities are entitled to necessary protection and to special facilities to enable them to share in a meaningful manner the fruits and efforts of economic and educational development.

# Foreign Policy Resolution

The Congress believes in non-alignment. The Congress affirms its support to the freedom-fighters in the African colonies of Portugal.

The Congress refuses to condone intervention by outside armed forces in the internal disputes of a country. At the same time the Congress recognises and upholds the right of every country to its unfettered existence within its own prescribed frontiers.

The Congress is anxious to strengthen bonds of friendship and cooperation with the neighbours and make its contribution to the promotion of their prosperity and strengthening of their security and assures them that differences, if any, with them would be solved promptly and peacefully.

India has no hostility against China or Pakistan. We do have to take note of China's hostile intentions and the fact of its occupation of Indian territory. We will pursue unremittingly our efforts to deal with these situations in the interest of our security and integrity and resist any attempt at subversion or incitement to disloyalty or tradition.

The Congress welcomes the flow of economic and technical aid from one section of the world to the other, but without strings.

# INDIAN NATIONAL CONGRESS (RULING)

(15, Windsor Place, New Delhi.)

President: Jagjivan Ram.

General Secretaries: H. N. Bahuguna; Dr. S. D. Sharma.

Treasurer: D. P. Mishra.

Working Committee: Jagjivan Ram, Smt. Indira Gandhi, Y. B. Chavan, Fakhruddin Ali Ahmed, C. Subramaniam, D. Sanjivayya, D. P. Mishra, Mohan Lal Sukhadia, V. P. Naik, K. Brahmanand Reddy, Kamlapati Tripathi, Darbara Singh, Kollur Mallappa, D. N. Tiwari, Siddharth Shanker Ray, Chandra Shekhar, Chandrajit Yadav, Henry Austin, Dr. Shanker Dayal Sharma, H. N. Bahuguna.

Central Parliamentary Board: Jagjivan Ram, Smt. Indira Gandhi, Y. B. Chavan, Fakhruddin Ali Ahmed, C. Subramaniam, D. P. Mishra, Sidhartha Shankar Ray, Darbara Singh.

Central Disciplinary Action Committee: V. P. Naik, D. Sanjivayya, Fakhruddin Ali Ahmed, Mohanlal Sukhadia, D. N. Tiwari.

Leader, Congress Party, Parliament: Smt. Indira Gandhi.

Deputy Leaders, Congress Party, Parliament: R. D. Bhandare (Lok Sabha); Akbar Ali Khan (Rajya Sabha).

Secretaries: B. Shankaranand and R. K. Sinha (Lok Sabha); R. P. Sinha (Rajya Sabha).

Treasurer : S. R. Damani.

Total membership of Party in country: (1967-68): Primary: 1,10,41,847; Active: 2,08,954.

The total number of members elected on Congress ticket in Lok Sabha in 1967 General Election was 284. The strength of the Congress members in the Lok Sabha at present is 221.

The Indian National Congress includes the following bodies:

The All-India Congress Committee, the Working Committee, Pradesh or Territorial Congress Committees, District or City Congress Committees, Committees subordinate to District Congress Committees like Block or

Constituency Committees and other subordinate Committees to be determined by the Pradesh Congress concerned.

There are 20 Pradesh Congress Committees:

Andhra, Assam, Bihar, Bombay, Delhi, Gujarat, Haryana, Himachal, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore, Punjab, Rajasthan, Tamil Nadu, Utkal, Uttar Pradesh, West Bengal and Tripura.

There are six Territorial Congress Committees:

Goa, Manipur, Nagaland, NEFA, Chandigarh and Pondicherry.

There are three District Congress Committees directly supervised by the A.I.C.C. 1. Andaman & Nicobar Islands, 2. L. M. & A. Islands. 3. Dadra and Nagar Haveli.

Fundamental differences among the top leaders of the undivided Indian National Congress came to a head during the election of the President of India after the passing away of Dr. Zakir Hussain, resulting in a split in the party, forming two groups, one under the leadership of Mr. Jagjiwan Ram, now known as Indian National Congress (Ruling) and the other under the leadership of Mr. S. Nijalingappa now known as Indian National Congress (Organisation).

The Indian National Congress (R) is pledged to the establishment of a casteless and classless society based on the principles of social, economic and political justice and equality of opportunity and freedom to work. The main objects and aims of the Congress are given in more detail in the previous edition of the Directory.

#### AZADNAGAR SESSION

The 73rd plenary session of the Indian National Congress was held at Azadnagar in Bombay from December 25 to 29, 1969. The session passed two important resolutions on Economic Policy and Political Situation. The economic resolution finalised by the ruling Congress Working Committee was adopted by the session on December 28, listing several social commitments. The five major

proposals made in the resolution are: the abolition of privy purses, a ceiling on urban property, nationalisation of general insurance and progressive takeover by the State of the import of raw materials and of the whole-sale trade in major agricultural products within the country. State Governments are now being asked to implement all the land reform laws on the statute book by 1970–71. The Congress Governments—at least those aligned with Mrs. Indira Gandhi—were being placed under a compulsion to secure full implementation by the said target date.

State Governments are being urged to take steps to recover lands which had been fictitiously transferred to evade land ceilings and to redistribute the lands to the landless.

The resolution also affirms that it is necessary to enlarge the role of the public sector.

The plea to take over wholesale trade confined formerly to foodgrains, has now been extended to cover all major crops.

The plan for the take-over of the import trade has been modified to give the Government more elbow room in the matter of phasing.

The ideas on the tax reform have been widened. The Expert Committee, which is to be set up to look into the technical, legal and economic aspects, will be asked to judge not only the need for the exemptions now allowed, but also the whole range of problems connected with black money, tax evasion and tax arrears.

The ten-point programme was adopted to put an end to the distortions existing in the economic life of the community. This programme is under implementation — the nationalisation of the 14 major banks and the passage of the legislation against monopolies, constitute an important landmark in the implementation of the programme. The Congress, while renewing its pledge to implement this programme in its letter and spirit, emphasises the early implementation of the other items mentioned in the beginning.

# PEASANTS AND WORKERS PARTY OF INDIA

(Jyotiba Phule Road, Naigaum, Bombay 14.)

General Secretary : N. D. Patil.

#### AIMS AND OBJECTS

To oppose imperialism and all kinds of domination by one country over another and to support the movements for national independence and against racial discrimination, all over the world.

To establish People's Democracy as a first step towards the realisation of the final goal of a socialist society in this country.

To nationalise all key and basic industries and control the industries in the private sector to ensure their management in the interests of the country.

To nationalise banks and the remaining sectors of the insurance business.

To industrialise the country rapidly and ensure labour participation in management.

To abolish unemployment by rapid industrialisation, decentralisation of industries, balanced industrial development of different regions, provision of technical training,

promotion of the growth of small-scale and village industries and by increasing the capacity of the existing industries.

To abolish all kinds of feudal relationships in agriculture and introduce co-operative farming.

To guarantee minimum wage to agricultural labour and to distribute surplus and Government lands among them.

To guarantee the right of work and a minimum wage to everybody.

To introduce free and compulsory education upto the age of 14 and to subsidise increasingly secondary and higher education. To provide free technical education.

To abolish untouchability by the economic improvement of the Scheduled Castes and Tribes and other backward communities.

Equal rights to women and the enforcement of the principle of equal pay for equal work.

Total Membership: About 14.000.

## PRAJA SOCIALIST PARTY

(18, Windsor Place, New Delhi 1.)

Chairman: N. G. Goray; Dy. Chairman: Mulka Govinda Reddy, MP; General Secretary: Prem Bhasin; Treasurer: Sanat Mehta, MLA.

Central Parliamentary Board: Chairman: H. V. Kamath; Leader, Lok Sabha Group: S. N. Dwivedy; Leader, Rajya Sabha Group: Mulka Govinda Reddy.

Strength: Lok Sabha 18; Rajya Sabha 6. Assemblies: Assam 5, Bihar 18, Gujarat 3, Tamil Nadu 4, Mysore 23, Orissa 21, M.P. 3, U.P. 3, West Bengal 1, Punjab 1.

The PSP stands for greater mobilisation of internal resources through the instrumentality of the State, and demands nationalisation of credit institutions. Planning will have to continue to accord importance to infrastructure, heavy industry, electronics, oils and chemicals,

Nationalisation of key industries like Coal and Steel and consumer industries like Jute, Tea and Sugar is also advocated.

The PSP advocates land reforms like conferment of ownership right of lands of absentee landlords on the tenants, protection against evictions, enforcement of ceiling, distribution of surplus land to small cultivators, substitution of land revenue by graded agricultural tax and encouragement of service and farming co-operatives.

It stands for a national food policy, comprising procurement at remunerative prices, nationalisation of wholesale food trade and scrapping of food zones.

The PSP calls for the strengthening, collectively with other South and South East Asian countries as equal partners, security and sovereignty of each of these countries.

## REVOLUTIONARY SOCIALIST PARTY

(780, Ballimaran, Delhi 6.)

General Secretary: Tridib Kumar Chaudhuri, M.P.

The party is a Marxist Leninist Party and is organized on the principle of democratic centralism. But it is opposed to subservience to the foreign policy of Russia or China.

It believes in the redistribution of land with ceilings, joint cooperative farming and mechanization. It believes in the policy of heavy industrialization, nationalization of all basic industries and of all large-scale organized industries, with private sector limited to small and cettage industries only and their organization on co-operative lines. On China, it condemns the Chinese aggression and supports

the Colombo Proposals as a basis for negotiations between the two countries.

The 1967 Election Manifesto was given in the 1968 edition of the Directory.

It wants 'regional autonomy' for tribal areas, nationalization of basic and key industries, overhauling of the planning organization and annulment of rural indebtedness.

The party has branches in Assam, West Bengal, Bihar, Uttar Pradesh, Delhi, Rajasthan, Maharashtra, Tamil Nadu and Kerala.

## SAMYUKTA SOCIALIST PARTY

Central Office: Kendra Karyalaya,

(16, Vithalbhai Patel House, New Delhi-1.)

Office Bearers: Chairman: Karpuri Thakur; General Secretary: George Fernandes.

Central Parliamentary Board: Ram Sowak Yadav (Chairman); Purushottam Kaushik (Secretary).

Leader of the S.S.P. Group in Parliament: Rabi Roy.

#### AIMS AND OBJECTS

To achieve, by democratic and peaceful means, a socialist society, free from social, political and economic exploitation of man by man and of nation by nation.

The Party is active on the trade union front through the Hind Mazdoor Panchayat, a central organisation of trade unions. On the youth front, it works through the Samajwadi Yuvajan Sabha, while a women's front is organised through the Samajwadi Mahila Panchayat. The Hind Kisan Panchayat organises the small farmers and agricultural labourers.

Membership: About 5 lakhs.

Some of the details on the 1967 Election Manifesto were given in the 1968 Directory.

## SWATANTRA PARTY

(143, Mahatma Gandhi Road, Bombay 1).

President: M. R. Masani.

Vice-Presidents: Prof. M. Ruthnaswamy; Smt. Gayatri Devi; R. N. Singh Deo; Dahyabhai V. Patel; N. Dandeker.

General Secretary: Dr. R. C. Cooper.

Treasurers: H. P. Nanda; Lalchand Hirachand.

Joint Secretaries: Harihar Patel; Prof. R. K. Amin; Dr. H. V. Hande; Madhu Mehta; N. K. Somani.

Executive Secretary: S. V. Raju.

The Swatantra Party was established in Bombay on August 1 and 2, 1959.

The Swatantra Party is pledged to social justice and equality of opportunity for all people without distinction of religion, caste, occupation or political affiliation.

The Party's Programme of Ordered Progress.

#### THE COMMON MAN

The Swatantra Party stands, first and foremost, for the common man and for provision of his food, drinking water, clothing and shelter under hygienic conditions through opportunities of gainful employment as the primary concern of Government.

The Swatantra Party believes in building a democracy in which an individual, whether he is a farmer, artisan, shop-keeper or professional, has the fullest opportunity to thrive and grow without any arbitrary restrictions.

### AGRICULTURE

The Party is for giving very high priority to agriculture. This, along with the demand that the heavy order of State Capitalist priorities practised during the past twenty years be reversed has been fully vindicated and is being mouthed with various degrees of mental reservation by other political elements. This will involve inter alia the repeal of the 17th Amendment (which makes the question of compensation for takeover of agricultural lands nonjusticiable) and a fair deal for the rural people not in the abstract but in the creation of conditions in which the benefit of a higher level of production goes to the bulk of the cultivators. It would also mean accepting the right of tenants to a fair rent and security of tenure, the abolition of land revenue, adequate provision of inputs to the agriculturist and support of the system of peasant proprietorship, the acceptance of the farmer's right to the best price he can get for his produce in the free market and guaranteed floor price. The Party stands for the creation of harmonious cooperation among owners, tenants, workers and all others concerned in agricultural production. The Swatantra Party stands for the removal of all compulsory procurement and all zonal and other barriers to the free movement of agricultural products throughout the country.

The Party will undertake to expand irrigation of cultivable land by a scheme of digging wells whose ownership will be passed on to the *kisans* on payment by instalments spread over a period of years.

The Swatantra Party stands for the protection of landless agricultural workers by insisting upon:

Just and adequate protection of those permanently employed in agriculture and all agricultural labourers; growing opportunities for alternative employment in the countryside through land improvement schemes; provision of free house-sites and drinking water facilities; provision of subsidised building material for their homes; a drastic reduction in the incidence of indirect taxation and arresting the rising cost of living; credit facilities for purchasing livestock and poultry; abolition of hereditary debts and maximum relief from agricultural indebtedness in whatever form.

Large size Government farms, a source of recurring loss, and other cultivable Government lands should be parcelled out in small holdings and let out to landless labour.

#### INDUSTRY AND TRADE

The Party stands for a balanced development of small, medium and capital intensive industries. It believes in the principle of a mixed economy and the absolute necessity for the State Sector industries to earn a fair return.

The Swatantra Party is opposed to monopolies whether in the State or free sector. Monopolies, where tolerated, will be subject to essential control.

Labour: The Swatantra Party stands for a fair deal to labour, both industrial and agricultural. The Party accepts the workers' right to organise themselves in order to improve their conditions of life and work. Strong and responsible trade unions managed by the workers themselves are an integral part of a democratic industrial order. The Party stands for the workers' right to collective bargaining involving, where necessary, the right to withdraw their labour.

It stands for harmony between the workers and the management and will help to develop a spirit of partnership between them.

The Party stands for a good wage for a good day's work.

Planning: The Swatantra Party believes in planning by persuasion.

It advocates that the objective of such planning bodies should be to promote the balanced and rapid growth of every sector of the economy with least Government interference.

#### FISCAL AND MONETARY POLICY

An Honest Rupee and stable prices can be provided by (a) abandoning all inflationary policies and practices, (b) a drastic cut in the wasteful bureaucratic expenditure of the Governments; and (c) reasonable levels of direct and indirect taxation.

Banks : The Swatantra Party is opposed to the nationalisation of banks and insurance.

Foreign Loans: The Swatantra Party is against extravagant and wasteful borrowings from foreign Governments. Foreign private equity capital coming into the country at its own risk should be encouraged.

Gold Control: Gold control should be entirely abolished.

# THE CONSTITUTION AND PUBLIC ADMINISTRATION

The Swatantra Party deplores the repeated Amendments to the country's Constitution, resulting in a serious erosion of fundamental rights. It pledges itself to restore these rights to their original form at the earliest.

All legislation will be such as respects the rights of the citizens to seek redress in the courts on disputed questions of law

The Party will give the country clean, honest, impartial and efficient administration.

The highest priority will be attached to the restoration of law and order.

Justice should be speedy and inexpensive.

The Party's stand taken as far back as 1960 to establish an Ombudsman has been vindicated by the Govt.'s acceptance to appoint a Lok Pal and a Lok Ayukt.

Electoral System: (i) The influence of money power and expenses incurred by candidates should be reduced and (ii) a system evolved to give a fair representation of the electorate's will reducing, if not ending, the distortion that is found at present in the composition of the Lok Sabha and many State Assemblies.

#### INTERNATIONAL RELATIONS AND DEFENCE

A more imaginative policy towards India's neighbours should be pursued to help the country's defences. A firm and vigilant policy towards Communist China and active steps to reoccupy Indian territory at present in China's grip should be taken. The Party stands for the liberation of Tibet and for the recognition of Dalai Lama as the Head of the Government of Tibet in exile.

It is of the view that Pakistan's aggression in 1965 has deprived it of any locus standi in Kashmir.

#### THE PARTY'S TASK

At its General Council Meeting in New Delhi on November 15 and 16, 1969, the Party adopted a Mid-term Report which has among other things suggested that the work of the Party in the coming two years should be marked by an emphasis on the following aspects:

- 1. The need for social change and the rapid modernisation of the social and economic structure. Our country lags badly behind not only the advanced countries of the West but even a large number of Asian countries many of whom, such as Japan, South Korea, the Republic of China in Taiwan, Hong Kong, the Philippines, Thailand, Malaysia and Singapore have made rapid progress during the past two decades. The Party will have to give more forceful expression to this desire for change and underline its resistance to obscurantism and reactionary attitudes, whether they are cloaked in slogans of the so-called Left or the so-called Right.
- 2. A genuine concern for the underprivileged including the tribal peoples has to be felt and articulated. They

should be assured a minimum standard of living through the creation of adequate employment opportunities.

- 3. The generation gap, which has alienated Youth, will need to be bridged by a conscious approach to the young and an understanding of their needs and aspirations.
- 4. While the Swatantra Party's philosophy and policies are based on the thesis that "the consumer is king" in a competitive economy, there has to be a balanace between the legitimate interest of the producer and the consumer. Neither should be sacrificed to the other. The interest of the consumer can best be served by higher production. A big task faces the Party in this respect. Consumers, apart from buyers of goods, include depositors and customers where banks are concerned, policy-holders in so far as insurance is concerned, parents in relation to problems of education.
- 5. In a multi-lingual and multi-religious nation like ours, maintenance of equality before the law and the protection of Minorities is a major task. A delicate balance has to be maintained between the prevention of discrimination and the protection of minorities. There should be no feeling of insecurity of person or property on the part of members of minority communities, of a denial of fair representation in public services, of equal opportunities in trade, commerce and industry and employment therein, of a fair deal in regard to admission to colleges and professional and technical institutions, of facilities for development of their languages and of some machinery for the redress of their grievances. The participation of all minorities, big and small, in national life is an essential precondition to national integration.
- 6. The erosion of states' rights through encroachments by the Centre has inter alia impeded the economic development of the states and is one of the factors responsible for large-scale unemployment. The time has come to rectify this distortion by restoring to the states the powers of dealing with trade, commerce and industry given to them in the Constitution.

Disputes between States and between the Union and the individual states have tended to plague our national life and to create further trends of a fissiparous nature. The quick resolution of such disputes has, therefore, become a national need. The Swatantra Party would work for the establishment of an Inter-State Council under Article 263 of the Constitution.

## OTHER IMPORTANT PARTIES

The other important polititical parties in the country are:—

The Republican Party of India with headquarters at Gandhi Road, Chanda and the Akali Dal of Punjab.

## BIHAR VIDHAN SABHA

Electorate: 2,92,81,772.

Party-wise position of the Assembly is as follows: Congress 117, Samyukta Socialist Party 54, Jan Sangh 34, Praja Socialist Party 16, Communist Party 24, Communist Marxist 3, Independents 11, Janta Party 11, Swatantra 2, Soshit Dal 6, Lok Tantric Congress 8, Hul Jharkhand 7, SBKD 4, Forward Bloc 1.

Speaker: Ram Narayan Mandal. Deputy Speaker: Shakoor Ahmed.

Premchand (Cong.), (Adapur); Abu Jafar (Cong.), (Ajamnagar); Lal Singh Tyagi (Cong.), (Akanger Sarai); Chadar Mumra (Hul Jharkhand), (Akaripada); Vidyakarkavi (Cong.), (Alamnagar); Ram Vilas Paswan (S.S.P.), (Alauli (R)); Sukh Narain Singh (S.S.P.), (Amarpur);

Habibur Rahman (P.S.P.), (Amour); Shital Prasad Gupta (Cong.), (Araria); Avadesh Kumar Singh (S.S.P.), (Arrah); Pandav Rai (S.S.P.), (Aarah); Shah Johair (C.P.I.), (Arwal); Nandkishore Prasad Singh (J.P.), (Ashhawan); Babulal Singh (J.S.), (Atri); Sarayu Singh (P.S.P.), (Aurangabad); Pandav Rai (S.S.P.), (Aurai); Abu Jafar (Cong.), (Azamnagar); Bhuneshwar Ram (Cong.), (Bachhwara); Narsingh Baitha (S.C.) (Cong.), (Bagha (R)); Imamul Hai Khan (S.S.P.), (Baghmara); Dr. Basant Narain Singh (J.P.), (Bagodar); Hazmuddin (Cong.), (Bahadurganj); Shibu Ranjan Khan (Ind.), (Baharagora); Tej Narayan Yadav (Swa.), (Baheri); Sheobachan Trivedi (Cong.), (Baikunthpur); Indra Jitendra Narain Singh (Ind.), (Baisi); Dharm Veer Singl (Cong.), (Bakhtiarpur); Jugal Kishor Sharma (S.C.),

(C.P.I.-M.), (Bakhri (R)); Uddin Jamal (Cong.), (Balia); Ramchandra Mishra (S.S.P.), (Baniapur); Takur K. Prasad Singh (Cong.), (Banka); Rashik Lal Rishideo (Cong.) (Banmankhi (R)); Smt. Bhagwati Devi (S.S.P.), (Barachatti (R)); Shukur (C.P.I.-M.) (Barari); Chandra Sekhar Singh (C.P.I.), (Barauni); Bijul Singh (C.P.I.), (Barauli); Shiv Shankar Singh (Ind., (Barbigha); Indra Jitendra Narain Singh (J.P.), (Barhi); Masih Saren (H.J.), (Barhait (R)); Schanlal Jain (Ind.), (Barsoi); Rana Sheolakhpathi Singh (Cong.), (Barh); Mahat Mahadevanand Giri (Ind.), (Barhara); Ram Raj Singh (J.S.), (Barhariya); Siddheswar Singh (Cong.), (Barhiya); Ram Jeewan Singh (S.S.P.), (Bariyarpur); Mahesh Ram (S.C.), (J.P.), (Barkagaon (R)); Ramchandra Prasad Shahi (Cong.), (Baruraj); Ram Bahadur Singh (Cong.) (Bathnaha); Jag Naraiyan Trivedi (Cong.), (Baxor); Sarayu Singh (Cong.), (Begusarai); Vijay Kumar Yadav (C.P.I.), (Behari); Chaturbhuj Prasad Singh (S.S.P.), (Belahar); Midheleshwar Prasad Singh (Cong.), (Belaqanj); Ramanand Singh (P.S.P.), (Belsand); Baidynath Jha (S.S.P.), (Benipatti); Ramanand Mishra (S.S.P.), (Benipur); Bindeshwari Dubey (Cong.), (Bermo); Karm Chand Bhagat (S.T.), (Cong.), (Bero (R)); Gauri Shankar Pandya (Cong.), (Bettiah); Chandra Mauli Mishra (J.S.), (Bhabhua); B. K. Mitra (J.S.), (Bhagalpur); Hemendra Pratap (S.S.P.), (Bhavnathpur); Raj Mangal Mishra (Cong.), (Bhore); Ganga Prasad Srivastava (S.S.P.), (Bibhutpur); Vijay Kumar Yadav (C.P.I.), (Bihar); Prabhu Narain Rai (C.P.I.), (Bihpur); Khadran Singh (B. K. D.), (Bikram); Sant Prasad Singh (C.P.I.), (Bikramganj); Mahabir Prasad (Soshit Dal), (Biraul); Rajkumar Purhe (C.P.I.), (Bisfi); Jogeshwar Ram (J.S.), (Bishrampur (R)); Seeta Ram Ranak (S.C.), (S.S.P.), (Bochaha (R)); Kali Ram (S.C.) (J.S.), (Bodhaya (R)); Sheth Hembhram (S.T.) (H.L.), (Boriyo (R)); Surya Narain Sharma (L.T.C.), (Brahmpur); Jagnarain Trivedi (Cong.), (Buxar); Bagum Jumbrui (S.T.) (Ind.), (Chaibasa (R)); Badri Singh (P.S.P.), (Chainpur); Srikrishna Singh (S.S.P.), (Chakai); Badri Singh (P.S.P.), (Chainpur); Hircharan Soy (S.T.) (Ind.), (Chakradharpur (R)); Durga Charan Das (B.K.D.), (Chandan Kiyari (R)); Ram Raj Prasad Singh (Cong.), (Chandi); Vir Singh (S.S.P.), (Chanpatia); Janak Yadav (P.S.P.), (Chapra); Kumba Narain Sardar (S.C.) (S.S.P.), (Chathapur (R)); Vacant, (Chatra); Niranjan Prasad Sing'i (J.P.), (Chauparan); Jagdambi Mandal (S.S.P.), (Chauthan); Chhathu Ram (S.C.), (Cong.), (Chenari (R)); Sadanand Singh (Cong.), (Colgong); Yaswant Kumar Chaudhury (Swa), (Dalsingh Sarai); Puran Chandra (S.S.P.), (Daltonganj); Buddahadev Singh (Cong.), (Danapur); Laxman Rawat (S.S.P.), (Darauli); Ram Vallabh Jalan (C.P.I.), (Darbhanga); Ram Vilas Singh (S.S.P.), (Daudnagar); Riyasat Karim (Cong.), (Dehri); Vaidyanath Das (Cong.), (Deoghar (R)); Masudur Rahman (Cong.), (Dhaka); Kalika Prasad Singh (P.S.P.), (Dhambadha); Yogendra Prasad Srivastava (Dhanaha); Raghuvamsa Singh (B.K.D.), (Dhanbad); Puneet Rai (Cong.), (Dhanvar); Ramchandra Bhanu (S.S.P.), (Dhuraiya (R)); Ramanand Prasad Singh (Cong.), (Dinara); Sidheswar Mandal (S.C.) (Cong.), (Dorepa (R)); Paika Mumru (Cong.), (Dumka (R)); Harihar Prasad Singh (Ind.), (Damraon); Kailash Pati Singh (J.P.), (Dumri); Lal Singh Tyagi (Cong.), (Ekanagar Sarai); Paltan Ram (S.C.) (S.S.P.), (Patepur (R)); Kanleshwar Das (Cong.), (Fatuha (R)); Sarayu Mishra (Cong.), (Forbesganj); Nitishwar Prasad Singh (Cong.) (Gaighatti); Gopinath Singh (J.S.), (Garhwa); Jaglal Choudhary (Cong.), (Garhwa (R)); Gopinath Singh (J.S.), (Garkha (R)); Taneshwar Azad (S.S.P.), (Gawan (R)); Gopal Mishra (J.S.), (Gaya); Hardeo Narain Singh (Cong.), (Gaya Muffasil); Nitishwar Prasad Singh (Cong.), (Gay-

ghatti); Jadunath Baske (J.R.P.), (Ghatsila (R)); Rajendra Pratap (Cong.), (Ghorasahan); Kaushalendra Narain Singh (Cong.), (Ghosi); Chaturanand Mishra (C.P.I.). (Giridih); Heman Kumar Jha (S.S.P.), (Godda); Avadh Singh (S.S.P.), (Goh); Smt. Ram Dulari Devi (Cong.), (Gopalganj); Madan Prasad Singh (Cong.), (Gopalpur); Rajindra Pratap Singh (Cong.), (Ghorasahan); Bachhan Sharma (S.S.P.), (Goraul); Krishna Kant Singh (L.T.C.), (Goraokothi); Harishankar Sharma (J.S.), (Govindganj); Y. Kishore Yadav (L.T.C.), (Govindpur); Ropna Urao (S.T.) (J.S.), (Gumla (R)); Motilal Singh Kanan (Soshit Dal), (Hajipur); Ahmed Shakur (Cong.), (Harlakhi); Nageshwar Dutta Patak (Cong.), (Harsidhi); Gajendra Prasad Himansha (S.S.P.), (Hasanpur); Baleshwar Ram (Cong.), (Hayaghat); Raghunandan Prasad (J.P.), (Hazaribagh); Jagdish Prasad (J.S.), (Hilsa); Satrughan Sharan Singh (Cong.), (Hisua); Bishm Narain Singh (Cong.), (Hussainabad); Dhanshyam Mahato (Ind.); (Ichagarh); Iswar Das (S.S.P.), (Imanganj (R)); Ramsharan Prasad Singh (P.S.P.), (Islampur); Mangal Singh Zamair (S.T.), (Ind.), (Jagannathpur (R)); Satya Narain Singh (Ind.), (Jagdishpur); Harilal Prasad Singh (S.R.) (R)); Satya Narain Singh (Ind.), (Jagdishpur); Harilal Prasad Singh (Soshit Dal), (Jahanabad); Rampal Paswan (S.C.) (Cong.), (Jainagar (R)); Kumar Kalika Singh (Cong.), (Jalapur); Tej Narayan Raut (J.S.), (Jale); Madan Besra (Cong.), (Jama (R)); Ram Balak Singh (C.P.I.), (Jamalpur); Kedar Das (C.P.I.), (Jamshedpur-East); Tripurari Prasad Singh (P.S.P.), (Jamni); Sunil Mukheri (C.P.I.), (Jamshedpur-West); Kali Prasad Singh (Cong.), (Jamtara); Sadanand Prasad (Cong.), (Jamua); Tripurari Prasad Singh (P.S.P.), (Jamui); Tulsidas Mehta (S.S.P.), (Jandaha); Smt. Shashank Maniari Devi (J.P.), (Jaridih); Shrikant (Cong.). Shashank Manjari Devi (J.P.), (Jaridih); Shrikant (Cong.), (S.P.), (Jamundi); Jowar Hussain (Cong.), (Jeeradei); Chandneshwar Singh (Cong.), (Jhajha); Rampal Choudhury (S.S.P.), (Jhanjarpur); S. K. Rai (B.K.D.), (Jharia); Uddin Taslim (Cong.), (Jokihat); Sanathan Mamjhi (S.T.) (Ind.), (Jugasalai (R)); Sadanand Singh (Cong.), (Kahalgaon); Ram Tahal Choudhury (J.S.), (Kanke); Brahma Deo Narain Singh (S.S.P.), (Kalyanpur); Harihar Prasad Shahi (L.T.C.), (Kanti); Tulsi Singh (S.S.P.), (Karakat); Ram Narain Mandal (Cong.), (Kasba); Suresh Prasad Yadav (Cong.), (Katoria); Nadhuri Ram Chamar, (Cong.), (Kateya); Satyanarain Vishwas (L.T.C.), (Kathihar); Hulomdeo Narayan Yadav (S.S.P.) (Keotiranway); Md. Ezaz Hussain Khan (Cong.), (Kesariya); Ram Bahadur Azad (S.S.P.), (Khagaria); Narmadeswar Singh Azad (P.S.P.). (Khajauli); Shamsher Jang Bahadur Singh (S.S.P.) (Kharagpur); Chandra Mohan Mamjhi (S.T.), (Ind.) (Kharsawan (R)); Sukhari Urao (S.T.) (J.S.), (Khijari (R)); (Kharsanta (B); Sakahar (B); Sakahar (B); Sakahar (R); Alam Raffq (Cong.), (Kishangan); Bhushan Prasad Gupta (Cong.), (Kishanpur); Viswanath Modi (S.S.P.), (Kodarma); Sushil Kumar Bage (Ind.), (Kolebira (R)); Ram Ballabh Saran Singh (Ind.), (Konch); Bhola Paswan Sastri (L.T.C.), (Korha); Suresh Prasad Yadav (Cong.), (Kothoria); Nagina Roy (J.P.), (Kuchaikot); Sadhusaran Shahi (P.S.P.), (Kurhani); Ramkrishna Yadav (Cong.), (Kumarkhand); Jagdev Prasad (S.D.), (Kurtha); Deep Narain Singh (L.T.C.), (Lolganj); Jamuna Singh (S.T.) (J.S.), (Latchar (R)); Prayaglal Yadav (C.P.I.), (Laukaha); Satru Mardan Sahi (Swa.), (Lauriya); Jag Narain Pathak (Cong.), (Leslieganj); Sobh Murmu (H.J.), (S.T.), (Liapara (R)); Bihari Lakara (S.T.), (Cong.), (Lohardaga (R)); Radha Nandan (Cong.), (Madhepur); Bholi Prasad Mandal (Cong.), (Madhipura); Bhishma Prasad Yadav (Cong.), (Madhopura); Mahendra Bharti (C.P.I.), (Madhuban); Surya Narain Singh (P.S.P.), (Madhubani); Bhangeshwar Prasad Rai (Cong.), (Madhupur); Sayed Ahmed (C.P.I.),

(Mahagama); Mahamaya Prasad Sinha (B.K.D.), (Maharajganj); Kaleshwar Hembram (S.T.), (H.J.), (Maheshpur (R)); Lahtan Chowdhury (Cong.), (Mahishi); Braj Kishore Rai (Cong.), (Mahnar); Basawan Ram (Cong.), (Majagaon (R)); Puran Chandra Virua (S.T.) (Ind.), (Majhagaon (R)); Ram Briksha Ram (S.C.) (S.S.P.), (Majagaon (R)); Mahavir Chaudhry (Cong.), (Makhdumpur); Mahavir Gope (Cong.), (Maner); Krisha Bhagat (S.T.) (Cong.), (Mandar (R, ); Vacant (Mandu); Nagendra Jha (Cong.), (Manigachi); Yuv Raj (P.S.P.), (Manihari); Rameshwar Dutta Sharma (Cong.), (Manjhi); Ratnakar Nayak (S.T.), (Manoharpur (R)); Bhishma Prasad Yadav (Cong.), (Marhaura); Ramdevan Das (J.S.), (Masaurhi); Kashinath Rai (P.S.P.), (Mashrak); Janak Singh (Cong.), (Meenapur); Anant Prasad Singh (Cong.), (Mirganj); Bhagwat Prasad Singh (S.C.) (P.S.P.), (Mohaniya (R)); Kapiladeo Narayan Singh (Ind.), (Mohiuddin Nagar); Kameshwar Singh (Cong.), (Mokameh); Ravish Chandra Varma (J.S.), (Monghyr); Ramsevak Jaiswal (Cong.), (Motihari); Mahavir Choudhury (Cong.), (Makhdumpur (R)); Mahavir Gop (Cong.), (Mamer); Kamleshwari Yadav (Cong.), (Murliganj); Ramdeo Sharma (C.P.I.), (Muzafarpur); Lal Behari Prasad (C.P.I.), (Nabinagar (R)); Viseshwar Khar (C.P.I.), (Nalia); Natya Narain Yadav (Cong.), (Naranjagar); Chunchun Descal Valor (LS) (Narpatganj); Chunchun Prasad Yadav (J.S.), (Nathmagar); Kedar Pandey (Cong.), (Nautan); Keshri Shri Gauri Shankar (J.S.), (Navda); Lal Bihari Prasad (S.C.) (C.P.I.), (Navanagar (R)); Nimalindu Bhattacharya (C.P.I.), (Nirsa); Jagdish Ojha (J.P.), (Nokha); Padaradh Singh (P.S.P.), (Obra); Chandra Madhav Prasad Singh (Cong.), (Orai); Ali Sayed Mohd. Jaffar (Cong.), (Pakur); Muhammed Ajeemuddin (Ind.), (Palasi); Chandradev Prasad Verma (S.S.P.), (Paliganj); Ram Deo Ram (S.C.) (J.S.), (Ponki (R)); Darega Prasad Rai (Cong.), (Parsa); Kumar Birendra Singh (Cong.), (Paru); Jagdambi Prasad Mandal (Cong.), (Parbata); Ram Nandan Singh (Cong.), (Patahi); Ghan Sham Manhto (Cong.), (Patamda); Paltan Ram (S.S.P.), (Patepur (R)); Ram Deo Mahto (J.S.), (Patna East); Ram Nandan Singh (Cong.), (Patna South); Dr. Ajit Kumar Sen (C.P.I.), (Patna West); Ambika Prasad (C.P.I.), (Peerpaiti); Dhaniklal Mandal (S.S.P.), (Phulparas); Beegu Ram (S.C.), (Cong.), (Pipara (R)); Ram Iqbal Singh (S.S.P.), (Piro); Ambica Prasad (C.P.I.), (Piro); painti); Edward Maradi (H.J.), (S.T.), (Poreyahat (R)); painti); Edward Maradi (H.J.), (S.I.), (Poreyanat (R));
Munshi Choudhury (S.S.P.), (Punpun (R)); Ramvriksh Choudhury (J.S.), (Pupri); Kamal Deo Narain Singh (Cong.), (Purnea); Sahdev Choudhury (S.C.) (J.S.), (Rajiganj (R)); Vaidyanath Prasad Mehta (Cong.), (Raghopur); Ram Braksha Rai (Cong.), (Raghopur); Ramanand Yadav (Cong.), (Raghunathpur); Babulal (S.C.) (J.S.), (Rajauli); Yadunandan Prasad (S.C.) (J.S.), (Rajgir (R)); Om Prakash Rai (J.S.), (Raj

mahal); Vilat Paswan (S.C.) (Cong.), (Rajnagar (R)); Vishwanath Rai (Cong.),\* (Ramgarh); Agarwal Shri Bodhulal (Cong.), (Ramgarh); Narain Vikram Sah (Cong.), (Ramnagar); Nani Gopal Mitra (J.S.), (Ranchi); Dumarlal Baitha (S.C.) (Cong.), (Raniganj (R)); Radha Pande (Cong.), (Raxaul); Sahadeo Mahato (Cong.), (Rosara); Bhuneshwar Rai (S.S.P.), (Runnisaidpur); Anantiprasad Singh (Cong.), (Rupauli); Rajdeo Ram (S.C.) (P.S.P.), (Sahar (R)); Ramesh Jha (Cong.), (Saharsa); Yadunandan Singh (Ind.), (Sahebganj); Nevanelal Mahato (S.C.) (P.S.P.), (Sakra (R)); Rajendra Narain Sharma (S.S.P.), (Samastipur); Ramji Prasad Singh (J.S.), (Sandesh); Ram Bilas Mishra (S.S.P.), (Sarairanjan); Van-bihari Mahato (Ind.), (Saraikela); Kamaldev Prasad Singh (P.S.P.), (Saran); Kam Deo Prasad Singh (P.S.P.), (Sarath); Vipin Bihari Singh (P.S.P.), (Sasaram); Ramesh-(Sarath); Vipin Bihari Singh (P.S.P.), (Sasaram); Rameshwar Paswan (Cong.), (Sekundra (R)); Ramanand Tiwari (S.S.P.), (Shahpur); Loknath Mochi (S.C.) (C.P.I.), (Sheikhpura (R)); Jai Ram Giri (Ind.), (Sherbhatti); Chandra Murmu (H.J.), (Shikaripura (R)); Sita Ram Prasad (S.C.) (J.S.), (Shikaripura (R)); Thakur Girijanandan Singh (B.K.D.), (Shiohar); Azam Rahful (Cong.), (Sika); Rameshwar Paswan (Cong.), (Sikandra (R)); Vrindavan Savasi (S.C.) (S.D.), (Silli (R); Gajadhar Gaur (J.S.), (Simdega); Ramehandra Prasad (S.S.P.), (Simri Baktiarpur); A. K. Rai (C.P.I.-M.), (Sindri); Rameshwar Sahu (Cong.), (Sinahia); Halit (Sindri); Rameshwar Sahu (Cong.), (Singhia); Halit Uraon (S.T.) (J.S.), (Sasai (R)); Shyam Sunderdas (S.S.P.), (Sitamarih); Janardan Tiwari (J.S.), (Siwan); Raj Narain Rai (Cong.), (Sonbarsa); Jageshwar Hazra (S.C.), (S.S.P.), (Sonbarsa (R)); Ram Jaipal Singh Yadav (Cong.), (Sonpur); Ramraksha Prasad Yadav (Cong.), (Sultanganj); Badrinath alias Rajaji Jha (Cong.), (Sugauli); Uma Shankar Singh (Cong.), (Supaul); Sunaina Devi (C.P.I.), (Surajgarh); Ramchitra Rai Yadav (Cong.), (Sursand); Smt. Sunena Devi (C.P.I.), (Suryagarh); (Sursand); Smt. Sunena Devi (C.P.I.), (Suryagarh); Karpuri Thakur (S.S.P.), (Tajpur); Anirudha Pathar (S.T.) (J.S.), (Tamar (R)); Prabhu Narain Singh (J.P.), (Taraiya); Tharini Prasad Singh (S.D.), (Tarapur); Mohd. Hussain Azad (Cong.), (Thakurganj); Punendra Narain Singh (J.P.), (Topchanchi); Niral Enem Horo (S.T.) (Ind.), (Torpa (R)); Anup Lal Yadav (S.S.P.), (Triveniganj); Gokhuleshwar Mishra (Ind.), (Tundi); Satyanarain Dudani (J.S.), (Tundi); Mohanlal Sharma (S.S.P.), (Vadhanas); Laliteswar Prasad Shahi (L.T.C.). (S.S.P.), (Vadhanas); Laliteswar Prasad Shahi (L.T.C.), (Vaishali); Ri Shidev Rasiklal (Cong.), (Vanmankhi (R)); Ram Sewak Hajari (S.C.) (S.S.P.), (Varisnaga (R)); Sohanlal Jain (Ind.), (Varsai); Ram Chandra Prasad Sonamai Jaan (ind.), (Varsai); Ram Chandra Frasad (Cong.), (Varuraj); Ganga Prasad Srivastava (S.S.P.), (Vibhutipur); Raj Kumar Purne (C.P.I.), (Visapi); Jageshwar Ram (S.C.), (J.S.), (Vishrampur (R)); Ram Sevak Hazari (S.S.P.), (Warsangar (R)); Devanandan Prasad (C.P.I.), (Warsaliganj); Zawar Hussain (Cong.), (Ziradei); Nominated: Smt. L. C. Ajiyar.

<sup>\*</sup> Election set aside by Patna High Court.

## **EDUCATIONAL STATISTICS**

GROWTH OF ENROLMENT IN SCHOOLS AND COLLEGES: 1965-66 TO 1973-74

Stage/age-group	Unit	boys/girls	1965-66	1968-69	1973-74 (Targets)
Primary (6-11) classes I-V	. million	total	50.47	55.49	68-58
			(76.7)	(77.3)	(85.3)
	million	boys	32.18	34.92	41.25
			(96.3)	(95.2)	(99.6)
	million	girls	18.29	20.57	27.33
			(56.5)	(58.5)	(70.1)
Middle (11-14) classes VI-VIII	million	total	10.53	12.27	18.10
			(30.9)	(32.3)	(41.3)
	million	boys	7.68	8.76	12-19
			(44-2)	(45.4)	(54.3)
	million	girls	2.85	3.51	5.91
			(17.0)	(18.8)	(27.7)
Secondary (14-17) classes IX-XI <sup>1</sup>	million	total	5.28	6.58	9.69
			(17.0)	(19.3)	(24-2)
	million	boys	4.08	4.95	7.00
			(25.6)	(28.5)	(34.3)
	million	girls .	1.20	1.63	2.69
Iniversity education (17-23) (arts, science			(7.9)	(9.8)	(13.7)
and commerce)	million	total	1.24	1.69	2.66
			(2.3)	(2.9)	(3.8)
echnical education (admission capacity) <sup>2</sup>					
iploma	number	total	48,048	48,600	48,600
egree	number	total	24,695	25,000	25,000

Includes enrolment in classes IX to XII in case of Uttar Pradesh which the State Government regard as part of school education. <sup>2</sup> The actual admissions were 27,255 and 17,890 respectively for diploma and degree courses.

Note: Figures in parenthesis indicate percentage of enrolment to the population in the corresponding age-group.

Source: Ministry of Education for the year 1965-66, State Governments/Union Territories for the years 1968-69 and 1973-74.

# PROVISION OF SCHOOLING FACILITIES — CLASSES I-V

(Enrolment in thousands)

	- 1	1965-66	1968-69
State/Union Territory		Enrol- ment	Enrol- ment
States			
Andhra Pradesh	•	3,769	3,839
Assam		1,443	1,566
Bihar		3,961	4,444
Gujarat		2,665	2,988
Haryana		804	855
Jammu & Kashmir		297	331
Kerala		2,869	3,219
Madhya Pradesh		2,849	3,142
Maharashtra		5,194	5,876
Mysore		3,136	3,279
Nagaland		58	67
Orissa	4.	1,749	1,899
Punjab		1,334	1,362
Rajasthan		1,618	2,013
Tamil Nadu		4,511	4,927
Uttar Pradesh		9,018	9,935
West Bengal		3,950	4,367
Union Territories			
Andaman and Nicobar Island	ds	8	10.7
Chandigarh		17.2	22.3
Dadra and Nagar Haveli		5	6.6
Delhi		399	447
Goa, Daman and Diu		95	109.6
Himachal Pradesh		358	378
Laccadive, Minicoy and Amir	ndivi		
Islands	•••	3.9	4.7
Manipur		163	171
N. E. F. A		13.1	16.8
Pondicherry		48	54
Tripura		134	156
TOTAL		50,469	55,486

Source: Ministry of Education for the year 1965-66 and State Governments/Union Territories for the year 1968-69.

# PROVISION OF SCHOOLING FACILITIES — CLASSES VI-VIII

(Enrolment in thousands)

		1965-66	1968-69
State/Union Territory		Enrol- ment	Enrol- ment
States	M.		
Andhra Pradesh	• • • •	651	5261
Assam		327	360
Bihar		716	821
Gujarat		597	727
Haryana		206	308
Jammu & Kashmir		87	117
Kerala		865	984
Madhya Pradesh		564	712
Maharashtra		1,223	1,527
Mysore		578	647
Nagaland		12.2	17.
Orissa		251	305
Punjab		326	427
Rajasthan		330	425
Tamil Nadu	• •	1,066	1,273
Uttar Pradesh		1,514	1,659
West Bengal		854	990
Inion Territories			
Andaman and Nicobar Islands		1.5	2.
Chandigarh		7.5	10
Dadra and Nagar Haveli		0.5	, 0.
Delhi		183	205
Goa, Daman and Diu		18	30
Himachal Pradesh		86	112
Laccadive, Minicoy and Amindi	vi		
Islands		0.7	0.
Manipur		25	29
N.E.F.A		2.6	3
Pondicherry	•	11	14
Tripura		29	37.
TOTAL		10,532	12,270

<sup>&</sup>lt;sup>1</sup> Enrolment in classes VI-VII only.

Source: Ministry of Education for the year 1965-66 and State Governments/Union Territories for the year 1968-69.

## PROVISION OF SCHOOLING FACILITIES — CLASSES IX-XI

(Enrolment in thousands)

	(15IIITO	iment in th	iousanus)
		1965-66	1968-69
State/Union Territory		Enrol- ment	Enrol- ment
States			
Andhra Pradesh		342	5421
Assam		207	225
Bihar		450	502
Gujarat		311	416
Haryana		85	111
Jammu and Kashmir		42	59
Kerala		369	412
Madhya Pradesh	5.0.	270	331
Maharashtra		617	803
Mysore		288	263
Nagaland		5.2	7.7
Orissa		101	147
Punjab		151	175
Rajasthan		139	1832
Tamil Nadu		551	690
Uttar Pradesh <sup>3</sup>		795	930
West Bengal		377	535
Union Territories			
Andaman and Nicobar Isla	ands	0.5	1
Chandigarh		5.2	6.2
Dadra and Nagar Haveli		0.2	0.33
Delhi		99.5	132
Goa, Daman and Diu		9	15
Himachal Pradesh		33	45
Laccadive, Minicoy and Ar	nindivi		
Islands		0.23	0.34
Manipur		13.6	16.6
N. E. F. A		1.6	1.7
Pondicherry		6.6	8.3
Tripura		12.5	17.9
TOTAL		5,282	6,576

<sup>&</sup>lt;sup>1</sup> Enrolment relates to classes VIII to XII. <sup>2</sup> Includes Pre-University Class.

## ENROLMENT AT SCHOOL STAGE BY SEX: 1868-69

(Enrolment in thousands)

		Class I — V	7
State/Union Territor	y	Enrolment	
	Boys	Girls	Total
States			
Andhra Pradesh .	. 2,283	1,556	3,839
Assam <sup>2</sup>	. 953	613	1,566
Bihar	. 3,310	1,134	4,444
Gujarat	. 1,883	1,105	2,988
Haryana	. 612	243	855
Jammu and Kashmir	r 238	93	331
Kerala	. 1,700	1,519	3,219
Madhya Pradesh .	. 2,236	906	3,142
Maharashtra	. 3,540	2,336	5,876
Mysore	. 1,884	1,395	3,279
Nagalands .	. 43	24	67
Orissa	. 1,245	654	1,899
Punjab	. 815	547	1,362
Rajasthan	1,469	544	2,013
Tamil Nadu	2,830	2,097	4,927
Uttar Pradesh	6,290	3,645	9,935
West Bengal	2,771	1,596	4,367
Union Territories			
Andaman and Nicoba	r		
Islands	6.2	4.2	10.7
Chandigarh	12.1	10.2	22.3
Dadra and Nagar			
Haveli	4.7	1.9	6.6
Delhi	247	200	447
Goa, Daman and Diu	63.3	46.3	109.6
Himachal Pradesh	238	140	378
Laccadive, Minicoy			
and Amindivi			
Islands	2.8	1.9	4.7
Manipur	105.5	65.5	171
N.E.F.A	15	1.8	16.8
Pondicherry	31	23	54
Tripura	92	64	156
TOTAL	34,920	20,566	55,486

<sup>\*</sup> Figures relate to classes I, II & III.

Enrolment relates to classes IX to XII.
 Source: Ministry of Education for the year 1965-66 and State Governments/Union Territories for the year 1968-69.

Classes VI-VIII

State/Union Territory	Enrolment in thousands			
	Boys	Girls	Total	
States				
Andhra Pradesh <sup>1</sup>	374	152	526	
Assam <sup>2</sup>	242	118	360	
Bihar	694	127	821	
Gujarat	478	249	727	
Haryana	242	66	308	
Jammu and Kashmir	90	27	117	
Kerala	536	448	984	
Madhya Pradesh	548	164	712	
Maharashtra	1,067	460	1,527	
Mysore	438	209	647	
Nagaland	11.7	5.5	17:2	
Orissa	243	62	305	
Punjab	297	130	427	
Rajasthan	352	73	425	
Tamil Nadu	834	439	1,273	
Uttar Pradesh	1,340	319	1,659	
West Bengal	683	307	990	
Union Territories				
Andaman and Nicoba			0.0	
Islands	1.4	0.8	2.2	
Chandigarh	5.6	4.4	10	
Dadra and Nagar Haveli	0.63	0.25	0.88	
Delhi	120	85	205	
Goa, Daman and Diu	19	11	30	
Himachal Pradesh	87	25	112	
Laccadive, Minicov	Variable.			
and Amindivi				
Islands	0.67	0.24	0.91	
Manipur	20	9	29	
N.E.F.A	2	1	3	
Pondicherry	9	5	14	
Tripura	23.3	14.6	37.9	
TOTAL	8.758	3,512	12,270	

<sup>&</sup>lt;sup>1</sup> Figures relate to classes VI and VII. <sup>2</sup> Figures relate to classes IV to VI.

Classes IX-XI

State/Union Territory	Enrolment in thousands			
	Boys	Girls	Total	
States				
Andhra Pradesh@	416	126	542	
Assamb	161	64	225	
Bihar	454	48	502	
Gujarat	279	137	416	
Haryana	88	23	111	
Jammu and Kashmir	48	11	59	
Kerala	222	190	412	
Madhya Pradesh	273	58	331	
Maharashtra	600	203	803	
Mysore	188	75	263	
Nagaland	5.6	2.1	7.7	
Orissa	127	20	147	
Punjab	121	54	175	
Rajasthan³	156	27	183	
Tamil Nadu	475	215	690	
Uttar Pradesh <sup>4</sup>	771	159	930	
West Bengal	404	131	535	
Union Territories				
Andaman and Nico-				
bar Islands	0.7	0.3	1	
Chandigarh	3.6	2.6	6.2	
Dadra and Nagar	0.05	0.00	0.33	
Haveli	0.25	0·08 54	132	
Delhi	78	5.5	152	
Goa, Daman and Diu	9.5	9.9	45	
Himachal Pradesh	36	9	45	
Laccadive, Minicoy and Amindivi				
Islands	0.28	0.06	0.34	
Manipur	11.3	5.3	16.6	
N.E.F.A	1.3	0.4	1.7	
Pondicherry	5.9	2.4	8.3	
Tripura	12.1	5.8	17.9	
	4,948	1,628	6.576	

<sup>&</sup>lt;sup>3</sup> Figures relate to classes IX, X and Pre-Univer <sup>4</sup> Figures relate to classes IX to XII. Source: State Governments/Union Territories. @ Figures relate to classes VIII to XI. (b) Figures relate to classes VIII to X.

## ANDAMAN AND NICOBAR ISLANDS

CAPITAL: Port Blair. Pop. 63,548 (1961). Area: 13,215 sq. miles. Literacy: 40·1% (See under Population for more details).

The Andamans are a string of islands of various sizes, large and small, lying between 10° to 13° 45' N latitude and from 92° 15' to 93° 15' E longitude in the Bay of Bengal. They have an average width of 15 miles and an axis of about 200 miles. The northernmost 'Land-fall Island' is 560 miles from the mouth of Hooghly River. The headquarters Port Blair is about 780 and 740 miles from Calcutta and Madras respectively. The main part of the Andaman group is composed of five large islands, viz., North Andaman, Middle Andaman, South Andaman, Baratang and Rutland Islands generally known as the Great Andamans. To the south of the Great Andaman is the island of Little Andaman. These islands consist mostly of a mass of hills covered with dense tropical forests and separated by three straits and several creeks. These islands have several very good harbours-Port Blair, Port Cornwallis, Mayabunder and Port Elphinstone.

The Nicobar Islands from Car Nicobar in the north to Great Nicobar in the south intervene between Little Andaman and Sumatra. The southern island of Great Nicobar is about 100 miles from Pilo Brasse off Achin Head of Sumatra and the northern island of Car Nicobar 75 miles from Little Andamans. These islands are partly hilly and partly flat. The most important harbour in the area is Nancowrie reputed to be the finest harbour in the east.

The Islands are exposed to both monsoons with north easterly gale from November to January and south westerly gale from May to October. The weather is smooth only from January to April and to some extent in October. The average rainfall is 123 inches. The temperature varies between  $23 \cdot 0^{\circ}$  C and  $31 \cdot 0^{\circ}$  C throughout the year.

#### **FORESTS**

Forests cover an area of 6,055 sq. kms. of which 78 per cent is under evergreen and deciduous forests.

The forests are rich in commercial timber and are suppliers of timber to the plywood and matchwood industries.

The species of timber found in the forest region are mainly padauk, Gurjan, Badam, White Chuglam, Papita etc. Annually the Forest department exports, approximately 20,000 tons of timber to the mainland.

Teak plantations have been successfully raised in Andaman Islands. Large areas have been brought under teak, matchwood and cane plantations under the Five Year Plan schemes.

#### AGRICULTURE

Total reporting area is about 43,000 hectares. The principal crops are rice, coconut and arecanut. The estimated area under paddy cultivation during 1968-69 is about 7,920 hectares. The average yield of rice was 1·35 metric ton per hectare. Commercial prospects of cultivation of rubber, coffee, and lac in these islands are considered to be bright by the experts.

Animal Husbandry: There are at present one veterinary hospital, five veterinary dispensaries and fifteen veterinary outposts functioning in the various parts of these islands.

#### COLONISATION

Ancillary services like schools, hospitals and dispensaries have been provided in the colonisation area.

Under the development programme submitted by the interministerial team sponsored by the Ministry of Rehabilitation, Government of India, Sahkaris and their families, in addition to some of the staff of the Rashtriya Vikas Dal, have been brought to these islands.

#### INDUSTRY

Saw milling is the main important industrial activity in the Territory and provides employment to 1,200 workers corresponding to 8 per cent of total industrial employment. The other industries include Government Dockyard, transport workshop, a printing press at Port Blair, tractor repair shop, plywood factory, match splint factory and boat building yard at Long Island. Besides, a number of training-cum-production centres have been started by the Government.

### POWER

A.C. Electric Supply in Port Blair was started in 1950 with a 400 kW capacity Steam turbo set. During 1954 a similar set was also installed. During 1963 a 330 kW Diesel Generator set was installed and during the year 1969 one 440 kW Diesel Generator was added in the power house, Chatham.

The construction of a new power house at Phoenix Bay in Port Blair has been taken up to meet further requirement of power.

Apart from Port Blair, electricity is available for the public at the following places. The installed capacity of the power house in (KW) is also given.

Wimberlygunj 72; Mayabunder 72; Diglipur 72; Rangat 72; Car Nicobar (HQ) 72; Nancowrie 18; Biglapathy 9.

It is proposed to electrify the following places during the Fourth Five Year Plan. Campbell Bay, East Bay Katchal, Neil Island, Mailtilak, Havelock, Baratang and Bakultala.

### ROADS

At present the Territory has a total length of 389 km. of black top road as against 172 km. in 1960-61.

**Transport:** The Territory has a city and rural transport service comprising 30 passenger buses.

Minor Ports: Under a Central scheme jetties for inter island communications are being constructed. Installation of navigational aids in Andaman and Nicobar waters had been entrusted to the Director-General of Lighthouses and Lightships.

Shipping: Two passenger-cum-cargo ships Viz., T.S.S. State of Bombay and M.V. Andamans and two cargo ships viz. M.V. Nicobar and M.V. Shompen ply between the mainland and the Islands. For inter-island communications the vessels S.S. Cholunga, T.S.S. Yerewa, M.V. Little Andamans, M.V. Yamuna, M.V. Katchal, M.V. Teressa and M.V. Onge maintain the communications.

#### **EDUCATION**

The Territory is educationally backward and education upto higher secondary stage is free. There are 121 primary schools, 17 Senior Basic Schools, 8 Higher Secondary Schools, one Junior Basic Teachers' Training School, 2 pre-Primary Schools, one Kendriya Vidyalay and one Government College functioning in the Territory.

#### TOURISM

As a first step towards development of tourism in these islands, one tourists' home at Corbyns' Cove and another at Port Blair have been constructed.

#### MEDICAL SERVICES

All treatment, medical or surgical is completely free. For specialised treatment patients are sent to the mainland at Government cost.

The G. B. Pant Hospital, Port Blair which is the largest Civil Hospital in this Territory is having 194 beds. All types of treatment except cancer and mental diseases are provided here. There is also a 50-bed T.B. Hospital at Port Blair which is provided with a T.B. Officer. Besides this, there are nine Civil Hospitals, one Primary Health Centre and 45 dispensaries functioning in different parts of these Islands. The Hospitals are located at Port Blair, Car Nicobar, Nancowrie, Campbell Bay, Rangat, Mayabunder, Diglipur, Billiground, Long Island and Bambood flat. The Primary Health Centre is at Wimberlygunj, in South Andaman. The total bed strength of Hospital and Primary Health Centre is 487 in this Territory.

A 25 unit N.M.E.P. Programme, B.C.G. programme, Filaria Control unit under the national health scheme and N.S.E.P. are functioning in these Islands. A V.D. Unit is also functioning in Car Nicobar.

#### COMMUNITY DEVELOPMENT

Four C.D. blocks are functioning at present. Out of these three are in Stage I and one is in Stage II.

Panchayats: Thirty-six Gram Panchayats and 36 Nyaya Panchayats have been established in the Andaman group of islands. In the Nicobar group, the traditional Panchayats continue.

#### CO-OPERATION

The number of co-operative societies in the islands has increased from 182 in 1967-68 to 187 in 1968-69.

#### BANKS

A branch of the State Bank of India at Port Blair conducts Government Treasury business. A State Cooperative Bank and a branch of Syndicate Bank are also functioning.

#### **ADMINISTRATION**

The Islands are administered by the Central Government through a Chief Commissioner. The budget estimates for 1969-70 are as follows:—

Total Revenue Expenditure Rs. 7,84,28,000; Total Capital Expenditure Rs. 3,37,92,000; Total Revenue Receipts Rs. 2,76,60,000.

Chief Commissioner : H. S. Butalia, I.A.S.

Chief Secretary: S. L. Bhargav, I.A.S.; Development Commissioner-cum-Development Secretary: A. H. Scott, I.F.A.S.; Chief Development-cum-Rehabilitation Commissioner: B. K. Halve, I.A.S.; Chief Conservator of Forests: E. S. Thangam.

Secretary (Finance): B. B. L. Bhardwaj; Secretary (Judicial): V. K. Choudhary.

## ANDHRA PRADESH

(APITAL: Hyderabad. Area: 1,06,052 sq. miles; (Population: 3,59,83,447 (Males 1,81,61,671; females 1,78,21,776 (1961 census)).

Sex ratio: 98·1 females for every 100 males. Highest sex ratio in Srikakulam—104 females for 100 males. Lowest in Anantapur—94·6 females for 100 males.

No. of Districts: 20. No. of Towns: 212. No. of Talukas: 189.

Density 339 per sq. mile. Literacy 21.20 per cent.

The number of Municipal Corporations: 1. The number of Town Municipalities in Telangana: 79; Number of Municipalities in Andhra: 47; Number of Panchayats in the State: 15,266; Number of Panchayat Samities: 321; Zilla Parishads: 20; Number of inhabited villages in the State: 28,997.

Strength of Legislative Assembly: 288. The strength of the Legislative Council: 90.

No. of members from Andhra Pradesh in the Rajya Sabha: 18. No. of members from Andhra Pradesh in the Lok Sabha: 43.

#### DISTRICTS

Districts with District headquarters in brackets:

Anantapur (Anantapur), Chittoor (Chittoor), Cuddappah (Cuddappah), East Godavari (Kakinada), Guntur (Guntur), Krishna (Machlipatnam), Kurnool (Kurnool), Nellore (Nellore), Srikakulam (Srikakulam), Vishakapatnam (Vishakapatnam), West Godavari (Eluru), Hyderabad (Hyderabad), Mahboobnagar (Mahboobnagar), Warangal (Warangal), Khammam (Khammam), Karimnagar (Karimnagar), Adilabad (Adilabad), Nizamabad (Nizamabad), Medak (Sangareddy), Nalgonda (Nalgonda), Ongole (Ongole).

#### **POPULATION**

(For area and population of districts according to 1961 Census see under "Population".)

#### AGRICULTURE

The total geographical area of the State is 67,451,693 acres (1960-61).

Classification of area (1000 hectares)—1966-67: Geographical area 27,524; Forests 6,117; Not available for cultivation 4,139 (area put to non-agricultural uses 2,056; Barren & unculturable land 2,083). Cultivated land excluding fallow land 2,836 (Permanent pastures and other grazing lands 1,157; Land under miscellaneous trees, groves etc. 305; Culturable waste land 1,374); Fallow land 3,040; Net area sown 11,343; Total cropped area 12,676; Area sown more than once 1,333; Net irrigated area 3,070; Gross irrigated area 3,825.

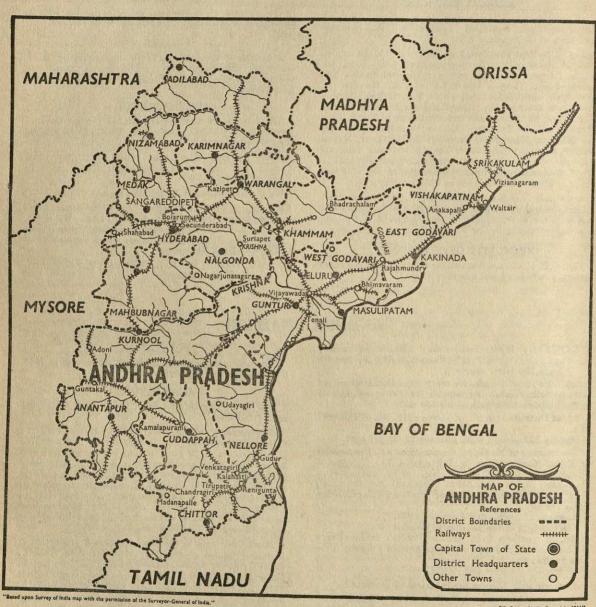
Foodgrains (area in thousand hectares & production in thousand tonnes respectively) 1968-69: Rice 3,053·4; 4,340·5; Jowar 2,680·9; 1,320·4; Bajra 572·3; 232·4; Maize 241·9; 265·0; Ragi 314·1; 255·5; Small millets 804·0; 180·0; Wheat 12·7; 3·0; Total cereals 7,885·1; 6,908.

Oilseeds: Groundnut 1,187·3; 889·5; Castor seed 254·5; 53·3; Sesamum 209·6; 33·6; Rapeseed & Mustard 0·7; 0·1; Linseed 24·8, 3·6; Total oilseeds 1,676·9; 980·1.

Other Crops: Nigerseed 12·7; 1·4; Tobacco 412·4; 347·2; Cotton§ 294·1; 93·0\*; Mesta 84·1; 262·7\*; Sanhemp 6·2; 1·0; Coconut § 34·2; 181·0‡; Arecanuts 0·2; 0·2@.

Figures are for 1967-68.
 Production of lint (thousand bales of 180 kgs. each.)
 Thousand tonnes of dried nuts without husk.

<sup>#</sup> Production in million nuts.



"O Govs. of India Copyright 1961"

#### Land Reforms

The State Government in consultation with the Government of India enacted the Andhra Pradesh Ceiling on Agricultural Holdings Act, 1961 which prescribed the maximum extent of land that a person may hold. The Bill was passed by the Assembly on July 9, 1960.

(See article "Agriculture" for ceiling on holdings of land)

#### **Fisheries**

(Please see main article 'Fisheries')

#### LIVESTOCK (1966)

(See page 32 under article on "Livestock")

#### INDUSTRY

The revised total 3rd Plan provision for the entire industrial sector was Rs. 1,672 lakhs. Against this outlay an expenditure of about Rs. 1,513 lakhs was incurred.

The Andhra Pradesh Industrial Development Corporation, the Small Scale Industries Development Corporation and the Andhra Pradesh State Financial Corporation were constituted to attract entrepreneurs. The Industrial Development Corporation offers financial aid to industries and also takes up worthwhile ones for direct promotion with financial collaboration from the private sector wherever necessary.

#### Industrial Estates

During the Third Five-Year Plan period an amount of Rs. 207·41 lakhs had been provided for establishment of 14 Assisted Private Industrial Estates, 10 conventional type Estates, 5 Rural Industrial Estates and one Cooperative Industrial Estate in addition to the expansion of the existing six Industrial Estates at Sanatnagar, Visakhapatnam, Vijayawada, Warangal, Chandulal Baradari and Cuddapah and Assisted Private Industrial Estate, Sanatnagar.

A large variety of products such as cycles and cycle accessories, steel furniture, scientific instruments, wire nails, radios, tape recorders, electric measuring instruments, cycle dynamo lights, automobile springs, airconditioners, safety razor blades, PVC cables, transformers, switch-gear electric accessories, stainless steel vessels, agricultural implements etc., are being manufactured in these estates.

#### Industrial Co-operatives

The Industrial Cooperatives are organised for the benefit of artisans engaged in various village and small scale industries. These industries cover Village Leather Industry, Carpentry, Hand Pounding of rice, Hand Made Paper, Pottery and Brick, Village Oil, Handicrafts like Ivory and Horn, Pile Carpet, Silver Filigree, Kalamkari Dying etc.

The number of societies has risen from 319 in 1956 to 2,257 in 1966-67. The position at the end of the Third Plan of the Industrial Cooperatives were: No. of societies, 2,214; No. of members 84,160; Paid-up share capital Rs. 43·17 lakhs; Production valued at Rs. 143·05 lakhs; Sales Rs. 149·14 lakhs.

Provision in Rs. lakhs for the development of industrial cooperatives during the 2nd, 3rd and 4th Five Year Plans: 7.25; 8.45; 10. Expenditure during the 2nd and 3rd Plans in Rs. lakhs: 7.02; 5.64.

The Government have been giving managerial and technical assistance to the deserving societies in addition to providing working capital and share capital loans and grants.

#### MINERALS

The chief minerals in the State are apatite, asbestos, barytes, clays, coal, copper, gold, graphite, iron ores, limestones, manganese, mica, quartz and steatite. The coal industry is concentrated around Kothagudem and Yellandu in Khammam district and Bellampalli in Adilabad district. Clongsotile asbestos found in Pulivendla taluk of Cuddapah district and produced only in this State, is mostly experted. Good quality barytes is found mainly in Cuddapah, Anantapur and Khammam districts. Mica, concentrated around Gudur in Nellore district, is mainly exported. Good clay deposits are widely distributed in the State. The manganese deposits in Srikakulam and Visakhapatnam districts sustain the Ferro-manganese industry in the State. The State has good reserves of iron ores scattered over several districts. Large deposits of magnetite ores have now been brought to light in Guntur and Nellore districts. Recently the Geological Survey of India has proved very good deposits of copper at Mailaram, in Khammam district and at Agnigundala in Guntur district and gold at Ramgiri in Anantapur district. The State is also an important producer of steatite of lava grade and the deposits are mainly concentrated in Anantapur and Kurnool districts. Large reserves of Cement grade limestones are found in the State. Chemical grade and flux grade limestones are also available. Graphite is found in East Godavari, Visakhapatnam and West Godavari and Khammam districts. The Graphite crucible industry is situated at Rajahmundry. Good deposits of quartz and silica sands are available in the neighbourhood of Hyderabad. The State has also precious and semi-precious minerals.

#### **COTTAGE INDUSTRIES**

The most important industry is that of handloom. There are about six lakh handlooms in the State and provides employment for about three million persons.

The handloom goods exported from the State of Andhra Pradesh will be about 20 to 25 per cent of the export from the country.

The important varieties of handloom goods produced in the State which are exported are as follows: Bleeding Madras — Indian Madras; Madras Handkerchiefs; Lungies, Sarongs; Silks — printed, Tussar.

The production value of cotton handloom cloth, woollen handloom goods and silk handloom cloth in the State during the year 1966-67 in Rs. lakhs was of the order of 3,209, 279 and 15 respectively.

#### TRANSPORT

The total road mileage including National Highways and State Highways 13,053.

Hyderabad City is connected by air with Bombay, Nagpur, Madras, Visakhapatnam and Bangalore. Hyderabad City is served by Begumpet aerodrome. Hyderabad is also linked by air to Delhi and Calcutta.

The following is the vehicular position as on 31st March 1967. The first figure shows the number of registered vehicles and the second number of those in actual use:

Stage Carriages 7,053; 4,342; Goods Vehicles 16,950; 12,509; Taxi Cabs and contract Carriages 1,832; 1,460; Motor Cycles and Scooters 20,290; 14,213; Motor Cars and Jeeps 31,141; 19,203; Others 8,039; 3,872.

#### POWER PROJECTS

The aggregate power demand in Andhra Pradesh which was 190 MW at the beginning of the Third Plan has risen to 258 M.W. at the end of the Third Plan. The installed capacity of 213 MW at the beginning of the

Third Plan, has gone up only to 291.8 MW at the end of the Plan and further to 645 MW by the end of 1967-68.

#### Machkund Hydro-Electric Scheme (Stage I and Stage II)

The Machkund Hydro-Electric Scheme is a joint venture of the States of Andhra Pradesh and Orissa. The two States share the capital outlay and power benefits in the ratio of 70:30 respectively. An ultimate installed capacity of 1,14,750 kW of which 70 per cent is Andhra Pradesh's share is available under this scheme.

## Tungabhadra Hydro-Electric Scheme (Details are given under "Irrigation").

### Tungabhadra Nellore Hydro-Thermal Scheme

The scheme envisages the installation of one 30-MW thermal set at Nellore. The plant has been commissioned already.

## Upper Sileru Hydro-Electric Scheme

The scheme envisages the installation of two sets of 60 MW each by utilising the tail race waters of Machkund power house. The first 60 MW unit was commissioned in Oct. 1967 and the second unit was commissioned in March 1968.

## Telangana Hydro-Thermal Scheme

The scheme envisages the integrated development of power generated at Hussainsagar, Ramagundam Thermal station and at Nizamsagar Hydel stations in Telangana region. In addition certain trunk transmission work, subtransmission and distribution works were also included in the scheme to form a grid network in Telangana area. General diesel stations were also installed under this scheme at various places. The scheme is almost complete. The additional boilers erected at Ramagundam and Hussainsagar power houses contributed to the firming up of about 14 MW of existing thermal capacity at these two stations.

#### Srisailam Hydro-Electric Scheme

The scheme envisages installation of  $4 \times 110$  MW sets in the first stage. Work on the project is proceeding briskly.

The project is estimated to cost Rs. 74·7 crores. The expenditure incurred on the project to the end of 1967-68 was Rs. 21·77 crores.

#### Balimela Dam

This is a joint scheme of Andhra Pradesh and Orissa Governments under execution by the Balimela Control Board. The total storage capacity of the Dam is 135 T.M. Cft., and 100·25 T.M. Cft. will be the live or effective capacity. There will be a power house erected at the toe of the Balimela Dam. The power generated here, i.e., 40 MW will be exclusively for the use of Andhra Pradesh. Andhra's share of the cost of the project is about Rs. 12 crores and the state will get a continuous discharge of about 2,000 cusecs for utilisation in the projects downstream.

## Kothagudem Thermal Scheme (Stages I & II)

This new scheme envisages the installation of  $2 \times 60$  M.W. sets each under Stages I & II. The sets under Stage I were commissioned in 1966 and the sets under Stage II in 1967. The scheme was executed with the aid of World Bank Loan.

Stage II scheme also contemplates an extension of the existing Kothagudem Thermal Station by an addition of two generating units of 110 MW each being procured from

Bharat Heavy Electricals and is expected to be commissioned in 1972-73.

## Ramagundam Thermal Extension Scheme (Stage I)

This new Scheme envisages the installation of one 62.5 MW set at Ramagundam. It is expected to be commissioned in 1970. This is being executed with loan given under U.S. Aid.

#### Gas Turbo Sets at Hyderabad

This scheme envisages the installation of  $2 \times 10$  M.W. Gas Turbo sets at Erragedda to relieve to some extent the power shortage in the twin cities of Hyderabad and Secunderabad, particularly during the peak load hours. The sets have been installed and commissioned into service.

## Lower Sileru Hydro-Electric Scheme (Stage I)

This scheme envisages the installation of  $4 \times 100$  M.W. Sets at Donkarai village on the river Sileru as the first stage of the project at an estimated cost of Rs. 42.36 crores. The power generated under this scheme will be exclusively for the benefit of Andhra Pradesh. Actual work has started and  $2 \times 100$  MW sets will be supplied from USSR under Russian aid and two sets by BHEL. Two more units of similar capacity will be added in the Second Stage at a later date. The first stage is expected to be commissioned in 1973-74.

#### IRRIGATION

The Tungabhadra Dam, inaugurated in 1953, has been completed for irrigating an ayacut of about 492,800 hectares in Andhra Pradesh and Mysore. The Nagarjunsagar Project, comprising the construction of canals and a dam (the tallest masonry dam in the world) on the Krishna river, 160 KMs from Hyderabad, will irrigate about 1,305,000 hectares on completion of the final phase. The first phase of the project is nearing completion. The waters are being let out for irrigation since July, 1966 to the extent of the irrigation potential created.

#### Major Irrigation Schemes

Prakasam Barrage: The total ayacut benefited under this scheme is 11.06 lakh acres and it is estimated to cost Rs. 291.57 lakhs; Bhairavunitippa Project: It commands an ayacut of 12,000 acres and is estimated to cost Rs. 145.77 lakhs; Upper Pennar Project: Proposed to feed an ayacut of 9,700 acres and is estimated to cost Rs. 158.62 lakhs; Rallapadu Project: Intended to irrigate 11,000 acres and is estimated to cost Rs. 105.81 lakhs; Romperu Drainage Scheme: 10,300 acres are benefited and is estimated to cost Rs. 126.60 lakhs; Tungabhadra Project Low Level Canal: The Canal is designed to irrigate about 1,48,800 acres in Andhra Pradesh costing Rs. 1,281 · 28 lakhs; Tungabhadra Project High Level Canal: Expected to irrigate 1.191 lakh acres and 598 lakh bund area in Andhra Pradesh and 70,300 acres in Mysore State. Estimated to cost Rs. 1,180 lakhs; Rajolibanda Diversion Scheme: The canal irrigates an ayacut of about 5,900 acres in Mysore State and about 87,000 acres in Andhra. Estimated cost is Rs. 383 lakhs; Kadam Project: Total utilization of the ayacut will be 65,000 acres. Estimated cost is Rs. 784 · 12 lakhs; Keddam Project: Irrigates 65,000 acres in the first and 20,000 acres in the second crops, estimated to cost Rs. 798 lakhs; Pochampad Reservoir Project: Designed to irrigate 5.7 lakh acres and is estimated to cost Rs. 40.10 crores.

Nagarjunasagar Project, Tungabhadra Project High level canal, Pochampad Project, Vamsadhara Project,\* Rajolibanda Diversion Scheme and Kadam Project are

<sup>\*</sup> The foundation for the Vamsadhara project in Srikakulam District was laid on April 16, 1970. In the first stage the cost of work is estimated at Rs. 8.64 crores and is expected to irrigate 2,46,722 acres in the District.

the major projects in Andhra Pradesh that are, at the moment, at various stages of progress. For details about Nagarjunasagar Project and Tungabhadra Project (see page 36 under article on irrigation).

#### LABOUR

(See article on Labour).

#### PUBLIC HEALTH

During the three years 1966-67, 1967-68 and 1968-69, Rs. 1,329-24 lakhs were provided for Medical and Public Health Schemes including water supply, drainage and sanitation, and out of this Rs. 582-55 lakhs pertain to the services operated under the Medical and Health Directorates.

It is proposed to increase the medical facilities and also to improve the quality of services during the ensuing Fourth Five Year Plan.

Hospitals, Beds, Staff etc., as on 31st March 1968:

No. of Teaching Hospitals 24; No. of beds in the Teaching Hospitals 9,572; District Headquarter Hospitals 17; No. of beds in Dt. Hospitals 2,984; General and Taluq Hospitals 210; No. of beds in the Hospitals 3,722; Dispensaries 142; No. of beds in Dispensaries 165; Other Hospitals and Sanitoria 10; No. of beds in Sanitoria and others 1,187; Primary Health Centres 409; Sub-centres 1,122; Beds in PHCS 2,454; No. of Doctors 2,248; Overall bed strength of Govt. Institutions 20,084; Ayurvedic Hospitals 3; Ayurvedic Dispensaries 78; Ayurvedic Vaidyas 127; Unani Hospitals 1; Unani Dispensaries 82; Unani Hakim 145.

Leprosy Control: It is estimated that there are six lakh cases of leprosy in the State. National Leprosy Control Programme was chalked out and the State established 16 Leprosy subsidiary Centres, 2 Leprosy Control Units, 2 Training Centres and 148 Survey Education and Treatment centres in addition to the existing Leprosy clinics at Karwar, Hyderabad. 35 S.E.T. Centres were sanctioned under L.C.P. (Leprosy Control Programme).

Family Planning: 170 Urban Family Planning Centres and 262 Rural Family Welfare Centres with reorganized pattern have been established in the State. The voluntary organisations and local bodies are also running family welfare centres and rendering services on Family Planning Programmes. In the year 1967-68 the State family planning organisations performed 170,796 sterilisations and 54,072 IUCD insertions respectively. During April to August 1968, 543,968 sterilisations and 83,621 I.U.C.D. insertions were done.

National Smallpox Eradication Programme: By end of the IIIrd Five Year Plan 300 lakhs of population i.e. nearly 75% of the State population have been vaccinated.

Maternity and Child Health: During the year 1967-68 the average number of mothers who attended the M.C.H. Centres opened during the IIIrd Plan was 7,000 at anti-natal clinics and two thousand at post-natal clinics. Further 22,000 anti-natal mothers were given advice by Centre staff.

#### **EDUCATION**

The number of educational institutions and enrolment respectively under each category in Andhra Pradesh during 1966–67 is as follows:

Schools for General Education: Pre-Primary Schools: 75; 3,519; Primary Schools: 36,906; 32,62,123; Upper Primary Schools: 2,782; 6,50,950; Secondary Schools: 2,849; 10,93,855.

Teacher Training Schools: Elementary Grade and (Special Training Schools for Adult Women): 13; 1,891; Secondary Grade: 108; 14,863.

Schools for Special Education: 10; 675; Schools for Oriental Studies: 79; 8,015; Schools for Adult Education: 810; 19,913; Universities: 4; (——); Colleges for General Education: 115; 69,304; Teacher Training Colleges: 10; 2,676; Commerce Colleges: 1; 714; Colleges for Physical Education 1; 255; Medical Colleges: 14; 8,194; Colleges for Oriental Studies: 29; 2,685.

# ANDHRA PRADESH AGRICULTURAL UNIVERSITY Dilkusha, Hyderabad 4.

The University is patterned on the Land grant colleges system of the United States. It has seven Colleges, three in the faculty of Agriculture, two in the faculty of Veterinary Science, one in the faculty of Home Science and one College of Basic Sciences.

The total No. of seats available in each faculty is as follows: (1) Agriculture B.Sc. (Ag.) 400; M.Sc. (Ag.) 100; (2) Veterinary Science B.V.Sc. 120; M.Sc. (V. Science) 50; (3) Home Science B.Sc. 65; M.Sc. (Home Science) 10.

The medium of instruction and examination in the University is English.

Chancellor: The Governor of Andhra Pradesh; Vice-Chancellor: O. Pulla Reddi, i.c.s. (Retd.); Registrar: Dr. G. Venkataratnam.

## ANDHRA UNIVERSITY

(Waltair)

Chancellor: Governor of Andhra Pradesh; Vice-Chancellor: L. Bullayya; Registrar: M. Gopalakrishna Reddi.

Number of University Colleges: 5; No. of professional colleges: 9; No. of affiliated colleges: 53; No. of oriental colleges: 23.

Total No. of students at the University Colleges in 1967-68 was 3,167.

This university is teaching as well as affiliating. English is the medium of instruction.

#### OSMANIA UNIVERSITY Hyderabad 7.

The Osmania University is a residential, teaching and affiliating university. It comprises eleven Faculties, namely, Arts, Social Science, Science, Commerce, Medicine, Engineering, Education, Law, Technology, Architecture and Ayurweda & Unani. There are six University Colleges, nine constituent Degree Colleges (including one exclusively Women's College and three Evening Colleges for Degree Courses for those in employment) and a Post-Graduate Centre.

63 Affiliated Colleges including 3 Medical, 1 Physical Education, 2 Engineering, 3 Training Colleges, 1 Nursing, 1 Architecture, 52 Degree Colleges of Arts, Science & Commerce (including 11 meant exclusively for women) and 3 P.U.C. Colleges.

Enrolment (1968-69): 47,469 (Arts, Social Science and Science): Boys 24,262; Girls 6,639; Professional: Boys 15,226; Girls 1,342.

During 1968-69, 9 Colleges were affiliated to the University, 1 with Architecture and 8 in Arts, Social Science, Science and Commerce.

Chancellor: Khandubhai K. Desai, Governor of Andhra Pradesh; Vice-Chancellor: Ravada Satyanarayana; Registrar: L. B. Deshpande, B.Sc. Total number of Arts and Science Colleges: Arts Colleges 20; Science Colleges 10; Arts and Science 35 and Professional 16. Total number of Women's Colleges: 12.

Total enrolment in Arts and Science Colleges: Boys 24,262; Girls 6,639.

Total number of Professors: 52; Other teachers 2,342.

Total number of Professional Colleges: 16 (Education, five; Engineering, three; Law, two; Medical, three; Physical Education, one; Nursing, one; Technology, one and Architecture, one).

#### Budget 1969-70

Receipts: Rs. 1,89,54,290. Expenditure: Rs. 2,67,45,800.
Contribution by State Government: Rs. 1,18,38,770;
U.G.C.: Rs. 26,120; Other sources: Rs. 70,89,400; Central Govt.: 61,07,772.

## SRI VENKATESWARA UNIVERSITY

Tirupati

A residential, teaching and affiliating University having jurisdiction extending over the districts of Anantapur, Chittoor, Cuddapah, Kurnool and Nellore in Andhra Pradesh.

There are 7 University Colleges and 33 Affiliated Colleges (27 Arts, 5 Professional and 5 Oriental). The authorities of the University are the Senate, Syndicate, Academic Council, Faculties, Boards of Studies and the Standing Committee of the Academic Council.

Instruction is being provided for Pass and Post-Graduate Degree courses of study in the teaching departments of English, Telugu, Sanskrit, Hindi, Arabic, Persian & Urdu, Philosophy, Psychology, Economics, History, Mathematics, Statistics, Physics, Chemistry, Botany, Zoology, Geology, M.sc. Home Science in the University College (Arts & Sciences). Research work leading to the Ph.D. Degree is also permissible in all these departments except

in the Statistics Department. M.A. Degree course in Home Science was started in the academic year 1964-65. M.Com. Degree Course has been started during the year 1969.

The University College of Engineering provides instruction for the Five Year Integrated Course in Engineering, Civil, Electrical and Mechanical branches.

There is now a Pre-University course of study followed by a three year degree course. There is also a two year Masterate course instead of the former Three Year Honours course. Provision has also been made for doing research leading to D.Sc. and D.Litt. degrees.

The medium of instruction and examination in the University is English excepting Modern Indian Languages and the languages for the Oriental Titles.

Chancellor: The Governor of Andhra Pradesh; Vice-Chancellor: Dr. D. Jagannatha Reddy; Registrar: K. V. V. Subbaraju; Dy. Registrar: K. V. Sambasiva Rao.

Total number of students in the University Colleges at the beginning of the academic year 1969-70: Boys and Girls 1,618.

The total strength of the University (including University College) in 1967-68 was 22,715.

## MUNICIPAL CORPORATION OF HYDERABAD

Mayor: N. Laxminarayana.

Deputy Mayor: Mydan Ramchandriah.

#### PRINCIPAL OFFICIALS

Commissioner: T. N. Capoor; Addl. Commissioner (Incharge), M. Narsing Rao.

#### BUDGET FOR 1969-70

Estimated Income: Rs. 7,91,20,458 · 00; Estimated Expenditure: Rs. 7,91,20,458 · 00.

## ASSOCIATIONS, INSTITUTIONS, ETC.

ADMINISTRATIVE STAFF COLLEGE OF INDIA
Bella Vista, Hyderabad 4.

Provides training to senior executives from private and public sectors and Government; also conducts short courses in functional specialisations e.g. Materials Management, Man-power Planning, Marketing, etc. It also provides Management Consultancy service and conducts research in management problems.

ALL-INDIA GRAPHITE, CRUCIBLE MANUFACTURERS ASSOCIATION (Regd.) Rajahmundry.

AMERICAN STUDIES RESEARCH CENTRE Hyderabad 7.

Maintains a comprehensive library on American civilization for the benefit of Indian scholars and teachers. Director: Dr. Gilbert C. Fite.

ANDHRA CHAMBER OF COMMERCE 68-B, Rashtrapati Road, Secunderabad. Madras Office: Andhra Chamber Building, 272/73, Angappa Naick Street, Madras 1.

> ANDHRA FILM CHAMBER OF COMMERCE

Andhraratna Road, Gandhinagaram, Vijayawada 3. ANDHRA HISTORICAL RESEARCH SOCIETY
Rajahmundry.

ANDHRA PRADESH AGRICULTURAL MACHINERY & APPLIANCES ASSOCIATION

141, Rashtrapati Road, Secunderabad 3.

ANDHRA PRADESH AGRICULTURAL MACHINERY AND IMPLEMENTS MANUFACTURERS' ASSOCIATION

4, Durga Bhavan, Rashtrapathi Road, Secunderabad-3.

ANDHRA PRADESH AUTOMOBILE DEALERS' ASSOCIATION

15-9-572, Siddiamber Bazar, Hyderabad-12.

ANDHRA PRADESH CHEMISTS' & DRUGGISTS' ASSOCIATION

IMA Building, First Floor, Isamiah Bazar, Hyderabad-27.

ANDHRA PRADESH FEDERATION OF TEXTILE ASSOCIATIONS

344, Ramgopalpet, Secunderabad-3.

ANDHRA PRADESH HOTELS ASSOCIATION 93, Sarojini Devi Road, Secunderabad.

ANDHRA PRADESH OIL MILLERS ASSOCIATION Kishanganj, Hyderabad.

ANDHRA PRADESH PAPER MERCHANTS ASSOCIATION

3364, Rashtrapati Road, Secunderabad 3.

ANDHRA PRADESH PRINTERS' ASSOCIATION 3-4-649 (Upstairs), Narayanguda, Hyderabad.

ANDHRA PRADESH SANGEETA NATAKA AKADEMI

Kala Bhavan, Saifabad, Hyderabad 4.

ANDHRA PRADESH SMALL INDUSTRIES
ASSOCIATION

Industrial Estate, Vijayawada 7.

ANDHRA PRADESH SOAP MANUFACTURERS'
ASSOCIATION

15-1-269, Goshamahal Road, Topkhana, Hyderabad-12.

ANDHRA PRADESH STATE COUNCIL FOR CHILD WELFARE

6-3-1186, Begumpet, Hyderabad 16.

ANDHRA PRADESH STATE FOUNDRIES
ASSOCIATION

C/o Hyderabad Iron & Steel Works Ltd., Shakar Bhavan, 1st Floor, B-1-174, Fateh Maidan Road, Hyderabad 4.

ANDHRA PRADESH STEEL RE-ROLLERS'
ASSOCIATION

C/o Andhra Roller Flour Mills, Mustafa Building, Nizamshahi Road, Hyderabad-1.

> ANDHRA SAHITYA PARISHAD Kakinada.

ANIMAL FEEDS MANUFACTURERS' ASSOCIATION C/o Feeds and Farms, 1-7-1072, Main Road, Musheerabad, Hyderabad-20.

> AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA

60, Mahatma Gandhi Road, Secunderabad.

THE BHIMAVARAM CHAMBER OF COMMERCE Bhimavaram (Dt. W. Godavari).

> BUILDERS' ASSOCIATION OF INDIA Red Hills, Hyderabad 4.

CENTRAL INSTITUTE OF ENGLISH Hyderabad 7.

CENTRAL TRAINING INSTITUTE OF INSTRUCTORS

I.T.I. Bldg., Mallepalley, Hyderabad.

THE CHAMBER OF COMMERCE Tadepalligudem (Dt. W. Godavari).

CHAMBER OF SMALL SCALE INDUSTRIES 8577, Mahatma Gandhi Road, Secunderabad.

CHITTOOR DISTRICT SMALL SCALE INDUSTRIES
ASSOCIATION
205, Town Planning Area, Tirupati.

THE COCANADA CHAMBER OF COMMERCE
Commercial Road, Kakinada 1.

EXPORT MERCHANTS ASSOCIATION Eluru Bazar, Guntur 3.

FAMILY PLANNING ASSOCIATION 5-1-227, Jambagh, Hyderabad.

FEDERATION OF ANDHRA PRADESH CHAMBERS
OF COMMERCE AND INDUSTRY

"Shakar Bhavan" (N.S.F. Building), B-1-174, Fatch Maidan Road, Hyderabad 4.

FEDERATION OF EAST GODAVARI DISTRICT CHAMBER OF COMMERCE AND INDUSTRY Devata Bhavan, Rajahmundry.

GODAVARI CHAMBER OF COMMERCE LTD. Vallabhai Street, Kakinada, East Godavari Dist.

GOUTHAMI CHAMBER OF COMMERCE
Main Road, Rajahmundry.

HYDERABAD CHILDREN'S AID SOCIETY 3-6-438, Hardikarbagh, Himayatnagar, Hyderabad 1.

> HYDERABAD HOTELOWNERS' AND CONFECTIONERS' ASSOCIATION 11-6-242, Nampally, Hyderabad 1.

HYDERABAD SECUNDERABAD IRON & HARD-WARE CONTROL STOCKISTS' ASSOCIATION 3364, Rashtrapati Road, Secunderabad 3.

> HYDERABAD STATE FILM CHAMBER OF COMMERCE

30, Ghasmandy Road, Secunderabad.

HYDERABAD STATE MOTOR MERCHANTS' ASSOCIATION

Mahatma Gandhi Road, Secunderabad.

HYDERABAD STOCK EXCHANGE LTD. Bank Street, Hyderabad.

HYDERABAD TRADE ASSOCIATION Singhvee Bhavan, Tilak Road, Hyderabad.

THE INDIAN CHAMBER OF COMMERCE P. Box 67, Guntur.

INDIAN CONFERENCE OF SOCIAL WORK Red Hills, Hyderabad 4.

INDIAN OIL SEEDS DEVELOPMENT COUNCIL

Telhan Bhavan, Himayatnagar, Hyderabad 29.

INDIAN TOBACCO ASSOCIATION Guntur (S. India).

INDO-GERMAN CULTURAL SOCIETY 208, Bibi Alawa, Hyderabad 24.

INDO-IRAQ CULTURAL SOCIETY 17-6-674, Chawrasta, Buglow Beni, Hyderabad 24.

INDUSTRIAL ESTATE MANUFACTURERS' ASSOCIATION

Estate Engineers' Office Bldg., Industrial Estate, Sanatnagar, Hyderabad 18. THE INSTITUTION OF ENGINEERS (INDIA) A. P. CENTRE

Khairatabad, Hyderabad 4.

KENDRA SANSKRIT VIDYAPEETH Tirupati.

THE KRISHNA DISTRICT CHAMBER OF COMMERCE

Fort Road, Masulipatam.

KURNOOL DISTRICT CHAMBER OF COMMERCE No. 1/8, Main Bazar, Peta, Kurnool.

MATERIALS MANAGEMENT ASSOCIATION 3486-90, 1st Floor, Rashtrapathi Road, Secunderabad-3.

THE NELLORE CHAMBER OF COMMERCE Tobacco Field, Nellore 1.

NUTRITION RESEARCH LABORATORIES Tarnaka, Hyderabad 7.

OIL TECHNOLOGICAL RESEARCH INSTITUTE Anantapur.

Run by the Government of Andhra Pradesh, it conducts research on vegetable oils, fats and allied products. The institute has so far published 180 research papers and three patents are taken. Technical advice and service on problems relating to oil technology are offered.

> PALAKOL CHAMBER OF COMMERCE Palakol, West Godavari District.

RAJAHMUNDRY CHAMBER OF COMMERCE LTD. Rajahmundry 1.

> REGIONAL RESEARCH LABORATORY Hyderabad 9.

SECUNDERABAD DYES & CHEMICAL MERCHANTS' ASSOCIATION 1629, Tobacco Bazar, Secunderabad 3.

SECUNDERABAD - HYDERABAD IRON AND STEEL MERCHANTS' ASSOCIATION 7940, Ranigunj, Secunderabad 3.

SECUNDERABAD TRADES ASSOCIATION 151, Sappers Lines, Secunderabad.

SECUNDERABAD YARN MERCHANTS' ASSOCIATION

1725, Gunj Bazar, Secunderabad.

SOCIETY FOR CULTURAL RELATIONS WITH FOREIGN COUNTRIES

> 156, Dewdi Nawab Ikram Yakhootpura, Hyderabad 23.

ST. JOHN AMBULANCE ASSOCIATION St. Mary's Road, Secunderabad.

TELUGU BHASHA SAMITI

Head Office: Osmania Univ. Campus, Hyderabad 7.

TRAINING CENTRE FOR THE ADULT DEAF Malakpet, Hyderabad.

VIJAYAWADA CHAMBER OF COMMERCE AND INDUSTRY

North Block No. 42, Kaleswararao Market, Vijayawada 1.

VIZAGAPATAM CHAMBER OF COMMERCE 16/9, Main Road, Visakhapatnam 1.

VIZIANAGARAM CHAMBER OF COMMERCE Main Road, Vizianagaram.

THE WEST GODAVARI ASSOCIATED MERCHANTS' CHAMBER

Plantations Bazar, Main Road, Eluru.

## ADMINISTRATIVE PERSONNEL

Hyderabad

Governor Khandubhai K. Desai

#### Cabinet Ministers

Cabinet Ministers

Chief Minister — General Adm. Service, Co-operation, Major Industries, Excise and Prohibition, Tribal Welfare, Law, Courts, Prisons and Legislature, K. Brahmananda Reddy; Deputy Chief Minister — Planning, Bureau of Economics, Buildings, Roads, Highways, Public Gardens, City Water Works, P.W.D. Workshops and concurrent subjects relating to Railways and Telegraphs, J. V. Narsingh Rao; Land Revenue, Registration and Stamps, Evacuee Property, Jagir Administration and Debt Settlement Board, P. Thimma Reddy; Panchayats and Small Savings, T. Ramaswamy; Education, Archaeology, Financial Assistance to Men of Letters, Development of Modern Indian Languages, etc., P. V. Narasimharao; Agriculture, Food Production, Animal Husbandry, and Dairy Development, K. Venkataratnam; Transport, Dr. M. N. Lakshminarsiah; Municipal Adm. and Town Planning, N. Chenchurama Naidu; Finance and Commercial Taxes, K. Vijaya Bhaskara Reddy; Religious and Charitable Endowments, R. Ramalinga Raju; Irrigation, Drainage and Flood Control, S. Sidda Reddy; Health, Waqfs and Salar Jung Museum, Mchammed Ibrahim Ali Wagfs and Salar Jung Museum, Mohammed Ibrahim Ali

Ansari; Home, Police, Cinematograph and Election, J. Vengal Rao; Handlooms, Co-operative Textile Mills and Sugar Factories, A. Bhagavantha Rao; Power, Stationery and Printing, V. Krishnamurthy Naidu; Labour, Relief and Rehabilitation, G. Sanjeeva Reddy; Social Welfare, D. Perumallu.

#### Ministers of State

Forests, S. Suryanarayana Raju; Information and Public Relations, A. Vasudeva Rao; Civil Supplies and Rationing, A. Sanjiva Reddy; Marketing, State Ware-Rationing, A. Salifiva Reddy; Marketing, State Phousing Corporation and Agro-industries Corporation, Ramchandra Rao Kalyani; Medium Irrigation, Drainage and Flood Control, R. Narapa Reddy; Women's Welfare, Tourism, Mrs. Roda Mistry; Small-Scale Industries, Small Scale Industrial Development Corpn. and Industrial Co-operatives, G. C. Venkanna; Minor Irrigation, V. Purushotham Reddy; Housing Accommodation Control, Sports Council, Games and Stadium, Rajanarasimha; Commerce, Export Promotion, Mines and Mining Corporation, P. Ankineedu Prasada Rao; Fisheries and Ports, S. R. A. S. Appalla Naidu.

#### Secretariat

Chief Secretary, M. T. Raju, I.C.S.; Addl. Chief Secretary, S. A. Quader, I.A.S.; Secretary, Revenue, C. R. Krishna Rao Sahib, I.A.S.; Secretary, Home, S. A. Quader, I.A.S.; Secretary, Finance, N. Rameshan, I.A.S.; Secretary, Law, J. Veera Swamy; Secretary, P.W.D., B. C. Gangopadhyaya, I.A.S.; Secretary, Planning & Panchayati Raj, B. P. R. Vithal, I.A.S.; Secretary, Education, S. R. Ramamurthy, I.A.S.; Secretary, Health, Housing & Mun. Adm., D. R. Sundaram, I.A.S.; Secretary, Industries, K. C. Madappa. I.A.S.; Secretary, Food & Agriculture, E. V. Rami Reddy.

Heads of Departments

Director of Agriculture, Dr. T. V. Reddy; Chief Conservator of Forests, P. S. Rao; Director, Bureau of Economics & Statistics, D. Rangaramanujam; Director of Public Instruction, B. Pratapa Reddy; Director of Industries & Commerce, S. Abid Hussain, I.A.S.; Inspector General of Police, A. Jayaram; Director of Medical & Health Services, Dr. I. Bhushan Rao; Commissioner of Police, Mohd. Abdus Salam Khan; Commissioner, Hindu Religious & Charitable Endowments, K. Vasudeva Rao, I.A.S.; Commissioner for Labour, C. N. Sastry, I.A.S.; I. G. of Prisons, V. Srinivasan; Registrar of Co-operative Societies, Syed Ashim Ali, I.A.S.; Director of Janasambandha Shakha, B. R. Rao, I.A.S.; Director of Fisheries, M. B. Shabhir; Director of Animal Husbandry, Dr. P. A. Siraji; Director of Inf., Public Relations & Tourism, P. Vamana Rao; Chairman, Public Service Commission, H. Ramalinga Reddy.

### HIGH COURT

Hyderabad.

Chief Justice, N. Kumarayya; Judges: K. V. L. Narasimham, Sharfuddin Ahmed, E. Venkatesam, Gopal Rao Ekbote, M. Krishna Rao, S. Obul Reddi, A. Sambasiva Rao, V. K. Vaidya, C. Kondaiah, A. Kuppuswami, O. Chinnappa Reddy, V. Parthasarathy, K. Madhava Reddy, K. Ramachandra Rao, A. D. V. Reddy, Y. Venkateswara Rao, M. Ramachandra Raju (Addl.), Sriramulu (Addl.); Advocate-General, B. V. Subramanyam; Registrar, K. Umapathy Rao.

#### SOUTH CENTRAL RAILWAY

Himmatnagar, Secunderabad 25.

General Manager, M. T. Lee; Senior Dy. General Manager, M. Fasihuddin; Chief Operating Superintendent, M. A. Uthappa; Chief Commercial Superintendent, K. N. Chonnabasappa; Chief Engineer, P. R. Mukherjee; Chief Engineer (Construction), M. R. Reddy; F. A. & C. A. O., M. A. Ashruff; Chief Mechanical Engineer, H. R. Chopra; Chief Personnel Officer, A. R. Sundara Rajan; Chief Signal and Telecommunication Engineer, A. Lakshminarayanan; Chief Electrical Engineer, V. Seetharaman; Chief Security Officer, L. J. Victor; Chief Public Relations Officer, N. V. Subramanian; Chief Medical Officer, P. A. Menon.

## ASSAM STATE\*

CAPITAL: Shillong. Area: 47,094 sq. miles according to Assam Survey. Geographical area 30.1 million acres.

Population (1961 census): 11,872,772. Density 252 per sq. mile (97 per sq. km.). Literacy 27·4 per cent.

#### DISTRICTS

(See under general article "Population" for names of districts, their population etc.).

There are now 17 Mahkuma Parishads, 121 Anchalik Panchayats and 2,624 Gaon Panchayats in the Plains Districts of the State. These Panchayats have covered 11,085 villages.

Number of Circles: In Assam Tahsils are termed as Circles: 67, Number of Municipalities: 17, Number of Town Committees: 29, No. of Towns: 60.

### REORGANISATION OF ASSAM

Under the Constitution (22nd Amendment) Act, an autonomous state within Assam State called Meghalaya comprising the districts of Garo Hills and United Khasi and Jaintia Hills came into existence on April 2, 1970.

#### **COTTAGE INDUSTRIES**

Main cottage industries: Sericulture and Weaving. Principal areas for Sericulture: Sibsagar, Nowgong, Goalpara, United Khasi-Jaintia Hills and United Mikir-North Cachar Hills, Lakhimpur and Kamrup districts.

Handloom weaving is done in most of the families in Assam.

#### AGRICULTURE

Agriculture provides livelihood to about 72 per cent of the total population of the State and contributes about half of the State income. The total area under food grains during 1967-68 was  $2\cdot 14$  million hectares.

Rice is the most important crop grown in the State. The area under rice is about 70 per cent of the total cultivated area. Maize is another food crop which grows well in Assam, particularly in the hills districts, but because of the prevailing food habit this crop is not extensively grown. Assam does not grow enough pulses to meet her requirement. Cultivation of other cereals like wheat is not undertaken extensively due to the unsuitability of the climate and soil.

Next to rice, tea occupying about 7 per cent of the total cropped area, is the most important crop of the State. Jute, sugar-cane, mustard and potato are other important cash crops of the State.

## Area & Production (1968-69)

Area in thousand hectares and production in thousand tonnes respectively: Rice  $2,082 \cdot 7$ ;  $1,979 \cdot 8$ ; Maize  $24 \cdot 4$ ;  $13 \cdot 1$ ; Small millets  $6 \cdot 5$ ;  $3 \cdot 2$ ; Wheat  $6 \cdot 7$ ;  $4 \cdot 3$ ; Total cereals  $2,120 \cdot 3$ ;  $2,000 \cdot 4$ .

Pulses: Gram  $1 \cdot 6$ ;  $0 \cdot 9$ ; Tur  $3 \cdot 7$ ;  $2 \cdot 6$ ; Other pulses  $85 \cdot 1$ ;  $28 \cdot 4$ .

Major oilseeds: Castorseed 2.3; 1.1; Sesamum 9.6; 4.7; Rapeseed 134.8; 48.4; Linseed 1.1; 0.5; Total 147.8; 54.7.

Other crops: Cotton  $16\cdot 4$ ;  $6\cdot 5\uparrow$ ; Jute  $108\cdot 1$ ;  $778\cdot 7\uparrow$ ; Tobacco  $10\cdot 1$ ;  $7\cdot 6$ .

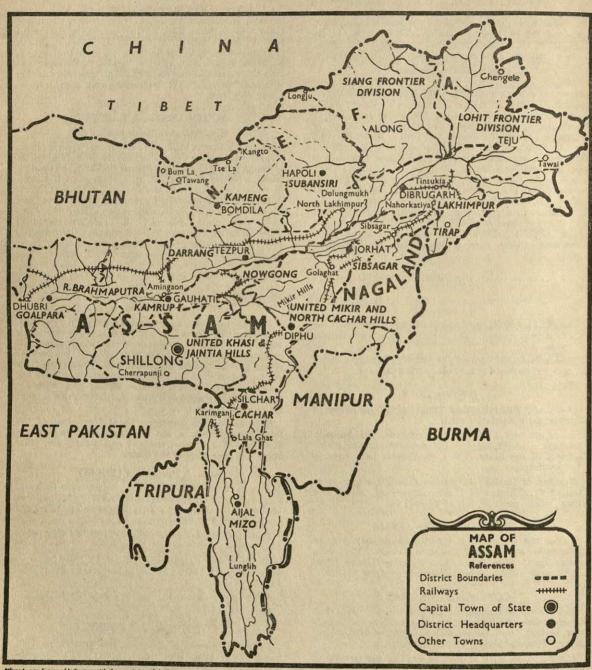
#### LIVESTOCK AND POULTRY

Estimated output of livestock and poultry products for 1968-69; Milk (lakh mds.) 74.00; Meat (thousand tonnes) 7.4; Eggs (lakh nos.) 1,990.8.

Agricultural implements (1966): Wooden ploughs 14,11,210; Carts 1,07,260; Tractors 589; Irrigation pumps 384; Iron ploughs 18,168.

The livestock position is as follows: Cattle 6,519: Buffaloes 579; Sheep 108; Goats 1,561; Horses and

<sup>\*</sup> In the map of Assam details of Meghalaya were not available at the time of finalising the map and so Meghalaya is not separately shown. † Thousand bales of 180 k.g. each.



"Based upon Survey of India map with the permission of the Surveyor-General of India."

"O Govt. of India Copyright 1961!

Ponies 43; Other livestock 375. Total livestock 9,185.

Poultry 9,878.

According to the 1966 livestock census, the cattle and buffalo population in the state are 6,519 thousands and 579 thousands respectively showing an increase of 1·1 per cent and a decrease of 0·7 per cent to the corresponding population in 1961. Another important livestock is goats which decreased from 1,886 thousands in 1961 to 1,561 thousands in 1966. The poultry population also showed a decrease from 9,907 thousand in 1961 to 9,878 thousands in 1966.

Source: (Economic Survey, 1968).

#### **PLANTATIONS**

Latest available data:

Plantation in the State: Tea.

Area under Plantation (Registered hectarage): 3,06,497.12.

Hectarage under cultivation: 1,74,134.

Number of Tea Plantations: 674 (covered under the Plantation Labour Act).

Total number of workers as on 30-9-1968: 4,29,404.

Fisheries: Variety of fish produced: Raba, Katla, Mrigal, Mali, etc.

Assam State has met the fish seed demands from their own resources. Culture of mirror carps, scale carps etc. has become popular in the Hill Districts of the State.

#### **FORESTS**

The forest area occupies about 47.9 thousand sq. kilometres and covers about 39 per cent of the State's total area. Of the total forest area 37 per cent is under reserved forests. Area under different categories of forests (thousand hectares) during 1967-68 is: Reserved 1,653; Protected 28; unclassed 2,908; Total 4,589; Assam earned Rs. 3.65 crores as revenue from the forest resources of the State during 1969-70 against Rs. 3.27 crores in 1968-69.

Main types of forest with some species of trees of economic importance occurring in them:

Evergreen forests, mixed deciduous forests, deciduous and dry deciduous forests, riverain forests, Savannah forests, swamp forests, bamboos and temperate forests containing sal, teak, hollock, holong, bansam, amari, gamari, ajhar, sissoo, simul, cane, bamboos, reeds and various species of medicinal importance.

Assam possesses one of the richest fauna in Asia and it is claimed that outside Africa, there is no part in the world with so many varieties of animals, birds, reptiles and insects. Rhinoceroses, elephants, wild buffaloes, bisons and mithuns, swamp deer, sambhar, spotted deer, barking deer, tiger, leopards, black panther, king cobra, pink-headed duck and giant hornbill are some of the well-known specimens of wild life.

Five sanctuaries and two game reserves with a total area of about 523.79 sq. miles, are maintained by the Government Forest Department for the protection of the interesting and in some cases the numerically dwindling species. Kaziranga and Manas are the two most famous sanctuaries.

Main forest produce: Timber, firewood, bamboo, cane, lac, elephant tusks, thatch, stone, sand, drugs, incense and perfumes, fibres and flosses. Assam has probably the biggest bamboo and reed reserves, contributing 42 per cent of India's total output. The out-turn of timber and fuel respectively for 1967-68 (thousand cubic metres) is 402 and 430.

### LAND REFORMS

Four schemes are under implementation and these will continue in the Fourth Plan also.

- 1. Consolidation of Holdings: The aim is to consolidate and prevent fragmentation of agricultural holdings in the plains districts in order to pave the way for increase in agricultural production. The Consolidation of Holdings Act, 1960 was amended in 1966 to provide for compulsory consolidation of holdings. Consolidation of 4,000 bighas was expected to be completed in 1968-69 and the remaining 46,000 bighas are expected to be consolidated during the Fourth Plan period.
- 2. Strengthening of Primary and Supervisory Land-Record Agencies for Collection of Agricultural Statistics: This aims to ensure proper collection of agricultural statistics for formulation and implementation of agricultural plans by increasing the existing strength of Mandals and Supervisor Kanungos by 100 per cent and 50 per cent respectively. A scheme for recruitment of 1,461 Mandals and 70 Supervisor Kanungos has been continuing from the Third Plan and will continue during the Fourth Plan.
- 3. Preparation of Tenants' and Adhiars' Record of Rights: The scheme is for the preparation of correct and up to date records of rights essential for effective implementation of various land reforms measures. The scheme in the districts of Goalpara, Kamrup and Sibsagar has been undertaken with resettlement operations and has been completed. The scheme has been taken up in 1965 in Nowgong and Lakhimpur and in Darrang in 1968-69 along with resettlement operations but independently in Cachar.
- 4. Resettlement of Landless Agricultural Workers: During the first two Plans 2,081 families were settled in 49,500 bighas of Government waste land in Nowgong, Kamrup and Sibsagar districts. Nothing could be done during the Third Plan as no waste land was available. During the old Fourth Plan the programme was to resettle 2,700 families. In this 350 landless families have already been selected during 1968-69 for allotment of lands in Nakhuti area of Nowgong District. The scheme will continue in the Fourth Plan with a resettlement target of 2,475 families.

#### MINES, INDUSTRIES

The only minerals in Assam worked on a commercial scale are coal, limestone, petroleum oil and sillimanite. Coal output 487,000 tonnes (1967); limestone output 22,000 tonnes (1968), sillimanite output 2,554 tonnes (1968). The estimated value of mineral production in Assam (excluding petroleum, minor mineral and minerals declared as prescribed substances under the Atomic Energy Act, 1948), was Rs. 16·9 million in 1967 which was less than Rs. 19·1 million in 1966. An oil refinery has already been set up at Gauhati.

Silk is manufactured in the Assam valley; also cotton weaving prevails as a cottage industry, women playing a predominant part.

Tea is the main industry, but there is a large petroleum mining concern with Digboi in Upper Assam as the centre and also some coal-mines. There is a big match manufacturing concern at Dhubri. Boat-building, brass and metal and earthenware, limestone burning, cane and bamboo work, furniture making, sola hat, smithy, brick making, mustard oil pressing, rice and saw mills are other industries.

The following are the provisional figures of out-put in some of the selected industries for 1968: Tea 207 million kilograms; Sugar 6.7 million kilograms; Match 3.91

million grosses; Electricity 161.4 million kwh.; Commercial plywood 3.6 million sq. meters.

Assam holds the premier position in the country in the field of oil production. An estimated reserve of 100 million tonnes accounts for 58 per cent of the country's known reserves. In recent years rich deposits of oil have been struck in Lakowa and Galeki in Upper Assam. Estimates of coal reserves in the State have been variously placed between 2,000 and 3,800 million tonnes which constitute about 3 per cent of the country's total reserves.

#### **POWER**

The hydro-power potential of Assam is estimated at 12 million Kw. During the Third Plan a sum of Rs. 417 million was spent for power. The amounts spent for power during 1967-68 and 1968-69 were Rs. 101 millions and Rs. 62 millions respectively. The Umtru Hydel Project has an installed capacity of 11,200 kw. The first stage of Umiam Project and the Naharkatia Thermal Project completed in 1965 has installed capacities of 36,000 kw. and 69,000 kw. respectively. The Noonmati Thermal Plant has a capacity of 12,500 kw. During 1968 certain residual works in connection with Umiam Hydel Project, Stage II and Namrup Thermal Station Extension were taken up. The other projects now awaiting completion are Gauhati and Garo Hills Thermal Projects.

The total installed capacity of the projects now in commission is about 153 m.w. In 1967-68 the per capita consumption of electricity in Assam was estimated to be 34 kwh against 45 kwh for India. Total generation of electricity in Assam was 157 million kwh in 1967-68 and 236 million kwh in 1968-69. The number of electrified villages in Assam at the end of 1968 was 379.

#### **INDUSTRIES**

Gas-Based Industries: The two projects which have been decided to be taken up as part of the first phase natural gas utilisation programme are (1) a power project, with an installed capacity of about 69,000 k.w. near Nahorkatiya and (2) a fertiliser plant at Namrup near Nahorkatiya with an annual production pattern of 55,000 tons of urea, 1,00,000 tons of Ammonium Sulphate, 66,000 tons of Ammonia, 82,500 tons of Sulphuric Acid. Both these projects are in the public sector. The Government of Assam have undertaken a programme for setting up a Petro-Chemical Industry.

The Spun Silk Mill at: Jagiroad (Public Sector) has gone into production. The cement factory at Cherrapunji with a capacity of 250 tons daily, (State Govt. Undertaking) has already gone into production. Steps have been taken to expand its capacity to about 850 tons. Steps have been taken for the establishment and expansion of a number of other industries such as large paper and pulp industries, hard board, chip board, commercial plywood, timber seasoning units, steel fabrication and light engineering manufacture.

A unit manufacturing hard board has been established.

#### Handloom Industry

Handloom industry is the largest and the most important cottage industry next to Agriculture, both in hills and plain districts. Most of the weavers of the State are women and they generally weave cloth for their domestic use in leisure time.

Cooperative Sector: From 664 societies at the beginning of the Second Plan period, the number of societies has gone up to 1,623 at the end of 1966-67. Similarly, the membership has gone up from 18,983 to 50,690 during the same period. The issue of Share Capital loan and Working

Capital loan has also gone up from Rs. 1·18 lakhs and Rs. 5·67 lakhs in 1955–56 to Rs. 8·70 lakhs and Rs. 64·32 lakhs respectively at the end of 1965–66.

#### TRANSPORT

Much of the trade of Assam is carried by river. Steamer companies maintain fleets of vessels which ply to and from Neamati, Tezpur, Gauhati, Goalpara, Dhubri, Karimganj, Silchar and many other smaller stations.

The entire railway system in Assam comes under the North East Frontier Railway. Pandu (Maligaon) near Gauhati has been made the headquarters of N.E.F. Railway.

Because of the slender surface link between Assam and the rest of India, air services are of great value to the State. Almost all the big towns—Tezpur, Jorhat, Dibrugarh, North Lakhimpur, Silchar, Dhubri and Gauhati are now served by daily scheduled flights. Pasighat and Along in NEFA have also been placed on the airmap.

The total length of motorable roads as on March 31, 1966, stood at 20,200 kilometres.

The length of roads under the management of Public Works Department was 20,678 km. in March 1968 out of which approximately 17,500 km. were motorable. Adding to this about 2,400 kms. of motorable roads under the management of the local bodies the length of motorable roads in the State in 1968 was around 19,900 kms. leaving a gap of 15,300 kms. to be constructed over the next 13 years or so.

At the end of 1967-68, the length of the nationalised road transport has increased to 2,989 kms. The gross capital investment in the nationalised transport as of March 1967 was Rs. 40.26 million, having a fleet of 724 vehicles. The State Transport carries on an average 30,000 passengers and 3,500 quintals of goods daily.

Number of vehicles both public and private in the State in 1967 (including Government and foreign): Motor vehicles 2,275; motor cars 12,083; taxi cabs 432; buses 1,998; private carriers 7,490; public carriers 4,510; trailer 2,781; tractor 2,449; vehicles owned by local bodies 12; Government vehicles 11; auto-rickshaws 30.

### CIVIL SUPPLIES

#### Latest figures:

The approximate monthly import requirements in tons of food-stuffs and other essential commodities are as follows:—Wheat 5,000; Salt 7,600; Sugar 5,500; Gur 2,000; Mustard Oil 3,000; Pulses 6,000; Paper 150; Cloth 10,000 bales; Yarn 2,500 bales; Iron & Steel 4,500; Cement 10,000; Misc. goods 15,000; Rice 42,000.

### CO-OPERATION

The outlays in the State Plan for 1968-69 and 1969-70 respectively in Rs. lakhs are: General 15; 45; Hills 10; 15. The amounts allocated for long, short and medium term plans during 1968-69 was Rs. 2·26 crores and for Hill plan Rs. 10 lakhs.

For statistical data about credit and non-credit societies see general article on "Cooperative Movement", p. 118.

#### **EDUCATION**

In the first two years of ad hoc Annual Plans (1966-68) the expenditure on education programmes under the Plan amounted to Rs. 401 lakhs. The allocation for 1968-69 was Rs. 162 lakhs under the General Plan and Rs. 78 lakhs in the Hill Plan. For 1969-70 the provision in the General Plan was Rs. 203 lakhs and in the Hill Plan Rs. 55

lakhs. In 1968-69 girls' education was made free up to class VI. In 1967-68 the total allocation on technical education for the plan scheme for general areas was Rs. 45 lakhs, subsequently reduced to Rs. 37.50 lakhs. In the annual plan for 1968-69 the plan allocation for the general areas was Rs. 25 lakhs only and the provision for 1969-70 was Rs. 40 lakhs.

#### LABOUR

Number of registered trade unions in December 1965: 186. On the basis of returns received from 69 unions the total membership was estimated to be 1,21,195. No. of industrial disputes during 1967 and 1968: 87; 25. No. of workers involved during 1967 and 1968: 73,775; 16,149. No. of man-days lost during 1968 and 1969: 1,82,026; 1.52,026.

Employment in registered factories in 1967: 81,893. Total employment in tea-industry on 31-3-1968: 4,38,630. On 30th September 1968 the employment stood at 4.29.404.

#### COMMUNITY DEVELOPMENT

The C. D. programme aims at providing extension service for various development schemes taken up for implementation in the rural areas. There are now in all 163 development blocks of which 42 are in the hill areas. The expenditure on development programme amounted to Rs. 22.8 millions, Rs. 73.3 millions and Rs. 117.0 millions during the First, Second and Third Plan respectively. The expenditure during 1967-68 was Rs. 33.8 millions.

Achievements (1967-68): Improved seeds distributed 1,350 tonnes; fertilizer distributed 3,696 tonnes; agricultural demonstrations held 6,992; improved implements distributed 6,856; Composite pits dug 20,444; improved birds distributed 12,587; drinking water wells constructed and renovated 1,802; adult literacy centres started 1,768; adult persons made literate 32,330; land reclaimed 7,723 hectares; area bunded and terraced 585; Roads constructed 910 k.m.

Panchayats: With the enforcement of the Assam Panchayat Act, 1959 the three tier Panchayat organisation came into existence. 2,573 Gaon Panchayats, 121 Anchalik Panchayats and 17 Mahakuma Parishads have been constituted covering all the plains districts of the State. The provision for 1968-69 in the annual plan was Rs.  $5\cdot00$ 

#### HOUSING

During 1966-67 and 1967-68 the expenditure on housing was Rs. 18.31 lakhs, 47 houses and 486 tenements were completed. For 1968-69 a provision of Rs. 5 lakhs had been made. The outlay for 1969-70 was Rs. 6 lakhs. The schemes relating to low income groups, industrial labour, plantation labour, village housing and land acquisition and development will continue.

For the Hill Plan there was a provision of Rs. 4 lakhs for 1968-69. The provision for 1969-70 was Rs. 9 lakhs, 25 houses and 40 units of Harijans' quarters were expected to be undertaken during 1968-69. The programme for 1969-70 included the completion of Harijan quarters and construction of additional 50 houses and 40 tenements under other schemes.

#### IRRIGATION

The Annual Plan allocation for 1968-69 for medium irrigation was Rs. 76,00,900 for the general areas and Rs. 10 lakhs for the hilly areas. For 1969-70 the provision was Rs. 80,15,929 and Rs. 19 lakhs respectively. Three schemes have been taken up for implementation, namely the Jamuna, the Sukhla and the Patra-Disa. Another scheme the Harguti Irrigation project at a cost of Rs. 40 lakhs in the Mikir Hills has already been taken up for execution. This and the Sukhla project will continue in the Fourth Plan. The Patra-Disa has been completed during 1968-69.

### ASSAM AGRICULTURAL UNIVERSITY

(Jorhat-4)

Courses provided: (a) Agricultural Course; (b) Veterinary Course.

Degrees offered: (a) Post-graduate — M.Sc. (Agri.) four years' course; (b) Undergraduate Course - B.V.Sc. - five years' course; (c) Post-graduate — M.V.Sc. — two vears' course.

#### DIBRUGARH UNIVERSITY

It is a teaching and affiliating University.

Chancellor: B. K. Nehru, Governor of Assam & Nagaland. Vice-Chancellor: Dr. B. R. Seth.

Rector: L. P. Dutt.

Registrar: Dr. A. K. Borkakoty.

Number of affiliated Colleges: 35.

Number of University Departments of Post-graduate Studies & Research: 13.

### **GAUHATI UNIVERSITY**

Gauhati-14, Assam.

Chancellor: Governor of Assam.

Vice-Chancellor : Dr. M. N. Goswami, M.A., B.L., Ph.D. (Cal.).

Registrar : C. Das, M.A., B.L.

Teaching, Affiliating and Residential.

Subjects where provision exists for post-graduate and research:

Assamese, Philosophy, Economics, History, Education, Mathematics, Statistics, Botany, Commerce, English, Physics, Chemistry, Geology, Anthropology, Agricultural Botany, Sanskrit, Political Science, Bengali, Geography, Zoology.

Number of colleges affiliated: 93 (Permanently affiliated 88; Temporarily or provisionally 5 including one constituent college).

Number of students: Affiliated Colleges: 46,456, University Departments: 2,096; Constituent College (Law College): 1,245.

Budget 1969-70.

Grant from State Government: Annual recurring grant of Rs. 23,50,000.

Receipts: Rs. 1,35.21 lakhs.

Expenditure: Rs. 1,38.31 lakhs.

## ASSOCIATIONS

ASAM SANGEET NATAK ACADEMY Kismet, Upland Road, Shillong. ASSAM CHAMBER OF COMMERCE Keating Road, Shillong.

ASSAM CHAMBER OF COMMERCE & INDUSTRY Morello Bldg., Shillong.

ASSAM NATIONAL CHAMBER OF COMMERCE P.O. Ulubari, Gauhati.

ASSAM PLYWOOD MANUFACTURERS
ASSOCIATION

Tinsukia.

EAST INDIA TEA CHEST & PLYWOOD MFRS.
ASSOCIATION

Margherita.

FRONTIER CHAMBER OF COMMERCE G. S. Road, Shillong 2. H.R.H. THE PRINCE OF WALES INSTITUTE OF ENGINEERING AND TECHNOLOGY Jorhat.

KAMRUP CHAMBER OF COMMERCE Gauhati.

NARAYANI HANDIQUI HISTORICAL INSTITUTE Gauhati.

PASTEUR INSTITUTE & MEDICAL RESEARCH INSTITUTE Shillong.

## ADMINISTRATIVE PERSONNEL

Shillong

## Governor

B. K. NEHRU.

#### Council of Ministers

Chief Minister, Appointment, Home, Political, General Adm., Secretariat Adm., Information & Public Relations, Minority Affairs, Transport, Co-operation, Municipal Adm., Public Works (R & E), Planning and Statistics, etc. B. P. Chaliha.

Finance, Labour, K. P. Tripathi.

Health, Tribal Affairs and Welfare of Backward Classes, Soil Conservation, C. S. Teron.

Education, J. B. Hagier.

Revenue, Forests, Flood Control & Irrigation, Parliamentary Affairs, M. M. Choudhuri.

Supply, Trade & Commerce, Excise, R. C. Barua.

Agriculture, Veterinary, Live-stock, Panchayats & Community Development, L. P. Goswami.

Jails, Khadi & Village Industries, Sericulture & Weaving and Fisheries, M. N. Hazarika.

Law, Political Sufferers, Social Welfare, Abdul Matlib Majumdar.

Industries, Mines & Minerals, Biswadev Sharma.

#### Ministers of State

Education, Wakf Property, Syed Ahmed Ali; Social Welfare, Relief and Rehabilitation, Shrimati P. K. Gohain; Transport and Parliamentary Affairs, P. K. Choudhury; Community Development and Panchayats, D. N. Hazarika; Revenue, Forests, R. Basumatary; Public Works (Roads & Buildings), Altaf Hussain Majumdar.

#### Deputy Ministers

Tribal Affairs and Welfare of Backward Classes, S. S. Terang; Agriculture, Dandi Ram Dutta; Labour, Chatral-Gopal Karmarkar.

#### Secretariat

Chief Secretary, N. K. Rustomji, I.C.S.; Secretary & Commissioner, Finance, G. C. Phukan; Commissioner, Hills Division, R. S. Paramasivan, I.A.S.; Secretary, Supply & Transport, B. W. Roy, I.A.S.; Commissioner, Planning and Development & Secretary, Development (Panchayat and C.D.), S. M. Rahman, I.A.S.; Secretary, Revenue and Forests, T. Krishnamurthy; Secretary, Industries, M. Ahmed, I.A.S.; Jt. Secretary, Home, M. P. Bez Barua; Secretary, Education, A. K. Patil, I.A.S.;

Secretary, Labour, Excise, etc., S. J. Das, I.A.S.; Secretary, L.S.G., Town and Country Planning, Medical, S. J. Das; Secretary, Agriculture, Veterinary, Pisciculture, Soil Conservation and Co-operation, S. Majumdar, I.A.S.; Secretary, Law, Biseswar Sarma; Special Secretary, B. Bhuyan, I.A.S.; Secretary, P.W.D. (Roads and Buildings Wing), G. C. Momin; Secretary, P.W.D. (Flood Control and Irrigation Wing), A. Rashid.

Heads of Departments

Commissioner of Plains Divisions, B. S. Saraw, I.A.S.; Commissioner of Agricultural Production, R. Chandra, I.A.S.; Director of Agriculture, K. C. Mahanta, I.A.S.; Director of Industries, A. D. Adhikari; Director of Public Instruction, U. Sarma; Director of Health Services and Inspector-General of Prisons, D. Phukan; Director of Economics and Statistics, J. N. Sarma; Director of Information and Public Relations, B. Barua; Director of Technical Edn., H. N. Barua; Director of Inland & Water Transport, K. Gogoi; Registrar, Co-operative Societies, B. Barua; Chief Conservator of Forests, P. Barua; Inspector-General of Police, Lala B. K. Dey; Dir. of State Transport, B. Hazarika.

## High Court

Gauhati

Chief Justice, P. K. Goswami; Judges, M. C. Pathak, I. M. Sen; Registrar, B. N. Sarma; Advocate-General, J. C. Medhi (Assam), S. K. Ghose (Nagaland).

## North-East Frontier Agency

Shillong

Adviser to the Governor, P. N. Luthra; Security Commissioner, K. A. A. Raja; Development Commissioner, S. M. Krishnatry; Inspector-General, Assam Rifles, Maj.-General V. B. Tuli.

## NORTH-EAST FRONTIER RAILWAY

Maligaon, Gauhati 11.

General Manager, N. N. Tandon; Senior Deputy General Manager and Chief Vigilance Officer, D. G. Divgi; Deputy General Manager (G), J. A. Webster; Chief Personnel Officer, H. N. Kidwai; Chief Operating Supdt., P. K. Anantanarayanan; Chief Engineer, M. I. Chhaya; Chief Mechanical Engineer, D. K. Subarwal; Financial Advisor and Chief Accounts Officer, G. M. Gidwani; Chief Electrical Engineer, P. Varadachari; Chief Signal & Tele-Comm. Engineer, D. P. Purang; Chief Commercial Supdt., H. P. Verma; Chief Security Officer, P. C. Barbora; Chief Medical Officer, Dr. B. S. Agarwal; Controller of Stores, V. N. Agharkar.

## NORTH-EAST FRONTIER AGENCY

HEADQUARTERS: Shillong, Assam. Area: 31,438 sq. miles (81,425.9 sq. kilometres); Population: 3,36,558.

The Agency is now under the administrative control of the Home Ministry.

Districts in the Agency with headquarters in brackets: Kameng District (Bomdila); Subansiri District (Ziro); Siang District (Along); Lohit District (Tezu); Tirap District (Khonsa).

#### **FORESTS**

About 60 per cent of the land area is under forests. The reserve forests constitute 1,779·32 sq. miles, proposed reserve forests 2,911·99 sq. miles and private forests 56·92 sq. miles. There are about 15,000 sq. miles of Unclassed State forests. Most of the forest area remains unsurveyed. In 1968-69, 1,21,302 cu. m. of timber was extracted (the bulk of which is from reserve forests) and a total revenue of Rs. 98,26,500 was earned as against Rs. 92,58,752, Rs. 74,26,366 and Rs. 68,80,569 during 1967-68, 1966-67 and 1965-66 respectively.

NEFA has a rich fauna and flora. There are wild elephants, bisons, buffaloes, tigers, leopards, various kinds of deer, bears, pigs and wild goats. Peculiar to NEFA are the following — takins, musk-deer, lesser pandas, clouded leopards and mountain goats. To the people of the Agency the 'Mithun' or 'Gayal' is the most important animal as it serves, apart from its religious and sacrificial significance, as a medium of barter.

The monsoon sets in from the May/June and continues till the end of September. The average annual rainfall at Bomdila is 40·12"; Pasighat — 220·05"; Tezu — 160·30" and Changlang 78·22". The snow line starts from about 13,000 feet altitude and the whole of the northern region along the international boundary is under snow during the winter months.

#### TRIBES

The Agency is inhabited exclusively by Hill Tribes. A broad list of the main tribes district-wise is given below:

Kameng District:—Monpa, Sherdukpens Bangnis (Yanoo and Khrodeng), Aka or Hrusso, Khowa or Bugun, Miji or Dammai, Khamba, Sulung, Bangro.

Subansiri District:—Tagin or Moya, Dafla or Nisi/Nishang, Apatani, Bangro, Mikir, Hill Miri, Sulung.

Siang District:—Adi (it has some 20 sub-tribes, some of them are almost treated as main Tribes), Khamba, Memba, Hill Miri, Idu Mishmi.

Lohit District:—Padam Hill Miri, Mishmi (Digaru or Taraon), Idu or Chulikata, Miji or Kaman, Singhpho, Khampti.

Tirap District:—Nocte, Singpho, Tangsa, Wancho, Yobin.

About 50 distinct languages and dialects are spoken. Each tribe is divided into a number of exogenous clans. As a general rule, the tribes do not intermarry.

#### EDUCATION

Education in the Agency is of the basic type with due emphasis on crafts and agriculture. 167 schools have already been converted to basic pattern.

Upto the end of the primary stage, the mother tongue of the students is the medium of instruction in schools, and text books in various tribal languages have already been prepared upto Class I. Assamese will be the medium

of instruction from Class IV onwards and it will also be introduced as a subject of study early in the primary stage. Hindi and English are also taught as compulsory languages from Classes III and IV respectively.

During 1964-65 there were 268 institutions distributed as follows: Higher Secondary 4; Higher English 4; Middle English 35; Lower Primary 212; Nursery 4; Training Institute 1; College 1.

Enrolment: in classes I to V during 1968-69: 16,800; in classes VI to VIII: 3,000; in classes IX to XI: 1,700.

Enrolment at school stage by sex during 1968-69: Classes I to V: Boys 15,000; girls 1,800; Total 16,800. Classes VI to VIII: Boys 2,000; Girls 1,000; Total 3,000. Classes IX to XI: Boys 1,300; Girls 400; Total 1,700.

Statewise allocation for Education in the Fourth Plan: General education Rs. 205·18 lakhs; technical education: nil; total Rs. 205·18 lakhs.

The most important aspect of the educational programme in NEFA has been the establishment and reorganisation of schools in the border areas.

#### **COTTAGE INDUSTRIES**

Regular Cottage Industries Training Centres have been opened at 22 places to impart training in weaving, spinning, tailoring, carpet-making, carpentry, wood-carving, cane and bamboo work, smithy, painting, sawing, soap-making and pottery. Rearing of silk and endi is demonstrated at sericultural farms at Pasighat, Changlang and Namsai. There are also 12 irregular centres.

As of March 1965, the total number of persons trained was 2,600. Expenditure during 1964-65 was Rs. 12.88 lakhs.

### PUBLIC HEALTH

Figures for 1968-69: The number of patients treated throughout the Agency 223,654; Number of hospitals, dispensaries, health units 95; Number of doctors sanctioned 124, present 84; Number of compounders sanctioned 120, present 89; Number of nurses sanctioned: 130; present 85; There was one doctor for every 4,007 persons, a nurse for every 3,959 persons; one hospital/dispensary for every 3,543 persons.

45 teams have been raised under the national small-pox eradication programme. Two BCG teams worked in Lohit, Daporijo, Siang and Pasighat Districts and vaccinated over 50,000 peoples. A 50 bedded T. B. Hospital continued to function at Margherita which was established during 1962.

#### **AGRICULTURE**

Area under Cultivation: 1,92,000 Acres; Land Development: 48,884 Acres; Area brought under Irrigation 31,242 Acres; Annual Food Production: 69,000 tons; Additional increase in food grains: 16,000 tons; Agriculture Farms; 11; Horticultural Nurseries 5; Peoples' Horticultural Gardens 52; Veterinary Dispensaries 38; Veterinary Aid Centres 29; Cattle upgrading Farms 11; Goat upgrading Farm 1; Pig upgrading Farm 1; Government Fish Farms 5; People's Fish Farms 6; and Village Fish Ponds 697.

#### CO-OPERATIVE MOVEMENT

Most of NEFA tribes have a very strong social sense, and every village is in its own way a Co-operative Society. There were on January 30, 1969, 97 Co-operative Societies which included 48 Consumers' Co-operatives, 7 Multipurpose Co-operatives, 10 Marketing and Processing

Societies, six Farming Co-operative Societies, three Thrift and Credit Co-operative Societies, two Industrial Co-operative Societies, two Builders Co-operative Societies, 11 School Co-operatives, two Labour Co-operatives, 6 Transport Co-operatives, one Co-operative Store and one Union Store.

### **COMMUNITY PROJECTS**

Total number of C. D. Blocks (NEFA "A" and "B" type): 43; Normalised (Post Stage II Blocks): 15; Area

covered 25,609 sq. miles; Villages covered 2,060; population covered 3,03,000.

#### COMMUNICATIONS

Physical achievements from 1951 to 1965 consist of roads (jeepable) 1,186·11 kilometres, mule paths 399·50 miles, porter track 2,235·50 miles, bridle paths 131 miles, improvement to roads 237·87 miles, improvement to porter tracks 416·50 miles.

## MEGHALAYA\*

THE hill State of Meghalaya created under the Assam Reorganisation (Meghalaya) Act, 1969 of Parliament passed on December 24, 1969, was inaugurated by Prime Minister Mrs. Indira Gandhi on April 2, 1970.

This new autonomous state which is in the nature of a State within the State of Assam consists of two revenue districts of Assam, viz. (i) United Khasi and Jaintia Hills and (ii) Garo Hills. Meghalaya is hemmed in by East Pakistan in the south and west and Brahmaputra valley on the north and North Cachar and Mikir Hills on the east.

#### AREA AND POPULATION

Area in Sq. Km. and population respectively according to the 1961 census: United Khasi and Jaintia Hills 14,363·92; 4,62,152; Garo Hills, 8,081·07; 3,07,228. Total 22,444·99; 7,69,380. According to August 31, 1969 census, the total population is recorded as 8,74,601 in the three regions. Of the remaining hill districts, the North Caehar Hills and the Mikir Hills have opted to remain within the Assam State while the option of the Mizo Hills district has to be decided later.

The hill areas of Assam have a total population of over one and a half million. According to 1961 census the density of population per square mile in Garo Hills and Khasi and Jaintia Hills was 97 and 83 persons respectively.

The population of Meghalaya predominantly consists of the Khasi, Jaintia and Garo tribals.

Both these districts of Meghalaya are connected through Kamrup and Goalpara of Assam. In area and population, this autonomous state is bigger than Nagaland and also bigger in area than all the Union Territories excepting Himachal Pradesh. Its important urban centres are Shillong, Jowai and Cherrapunji in the United Khasi and Jaintia Hills and Tura in Garo Hills.

Cherrapunji claims to have the world's highest rainfall and Assam Government's cement factory is located there. Shillong is the capital of both Meghalaya and Assam.

## PRINCIPAL CROPS

The principal crops of Meghalaya are potato, tezpata and fresh fruits in United Khasi and Jaintia Hills and cotton in Garo Hills. United Khasi and Jaintia Hills are the largest producers of potato and Garo Hills in cotton among all the districts of Assam.

#### Minerals

Meghalaya is rich in both mineral and forest resources, but the transport difficulty is one of the major hurdles in the way of planned development and progress and exploitation of these resources. The mineral wealth of United Khasi and Janitia Hills district includes coal, sillimanite, limestone, unworked lithomarge, white clay and corundum. This area produces one-fifth of the State's output of coal, 95 per cent of India's total output of sillimanite and all of Assam's output of limestone.

The Garo Hills district is a potential mineralised area of Assam. There are deposits of coal, limestone, fireclay and light coloured sandstone, which are virtually untapped. Plans have been made to exploit them but transport difficulties have so far been insuperable.

Forests and forest products are the chief resources of the new State. Fireclay, abrasive and ceramic are also available.

#### POLITICAL SET-UP

The new State has a 38-member Legislative Assembly. The members of the Assembly have already been provisionally elected by indirect election. In the elections the All Party Hill Leaders Conference secured a majority in the provisional legislative assembly and the party Chairman, Captain Williamson Sangma, has been designated the Chief Minister of the State. Captain Sangma has selected a five-member Council of Ministers who assumed office on April 2, 1970. The new State will have control of 61 out of 65 subjects in the State list.

So far as Meghalaya areas are concerned the Government and legislature of Assam will have jurisdiction in respect of only certain subjects of common importance including state highways, major industries, and hydroelectric projects. While the overall responsibility for law and order in Meghalaya will remain with the Assam Government, the new autonomous state will have its village and town police. It will also enjoy enforcement of power so far as 61 subjects in its State list are concerned. The Assam and Meghalaya States will have concurrent powers requiring ratifications by both State Assemblies in 13 subjects including acquisition of lands.

The new State will have a common Governor and a common High Court with Assam. Shillong, the present capital of Assam and a popular hill station will be the common capital of both the States.

#### ADMINISTRATIVE PERSONNEL

Shillong

Chief Minister, Political, Public Relations, Home, Administrative Reforms, Re-organisation, Cabinet Affairs and Law, Captain Williamson Sangma.

Agriculture, Industry, Irrigation, Cooperation, Forests, Revenue, Labour, Supply, Transport and Tourism, S. D. D. Nicholas Roy.

Education, Social Welfare, Health and District Council, S. Marak.

P.W.D., Public Health Engineering, Town and Country Planning, E. Bareh.

Finance, Excise, Planning and Taxation, B. B. Lyngdoh.

<sup>\*</sup> The annual Plan of Meghalaya for 1970-71 envisages an outlay of Rs. 684.98 lakhs.

## BIHAR STATE

CAPITAL: Patna. Area: 67,196 sq. miles. Geographical area: 42.8 million acres (5.8 per cent of the area of India).

Total Population: 46,455,610 (1961 census). Density 694; Literacy 18.4 per cent. Population (1966) 52.1 million.

Administrative Divisions:—Patna, Bhagalpur, Tirhut and Chota Nagpur.

Districts with names of District Headquarters in brackets in each Division:

Patna Division: Patna (Patna); Gaya (Gaya); Shahabad (Arrah). Tirhut Division: Muzaffarpur (Muzaffarpur); Saran (Chapra); Champaran (Motihari); Darbhanga (Laheriasarai). Bhagalpur Division: Bhagalpur (Bhagalpur); Monghyr (Monghyr); Purnea (Purnea); Santal Parganas (Dumka); Saharsa (Saharsa). Chota Nagpur Division: Ranchi (Ranchi); Hazaribagh (Hazaribagh); Palamau (Daltonganj); Singhbhum (Chaibassa); Dhanbad (Dhanbad).

Number of Districts: 17; Number of District Boards: 17; Number of Municipalities (including Patna Municipal Corporation): 54; Improvement Trust: 4; Notified Area Committees: 45.

Names of towns with a population of over 50,000: Patna, Monghyr, Jamshedpur, Muzaffarpur, Gaya, Chapra, Bhagalpur, Arrah, Ranchi, Darbhanga, Dhanbad, Biharsharif, Katihar and Jamalpur.

(For names, area and population of districts see article on 'Population')

## LARGE AND MEDIUM INDUSTRIES

For the development of industries in the State some of the major steps taken by the State Government include the establishment of The Bihar Industrial Development Corporation, Bihar State Agro-Industrial Development Corporation, Spun Silk Mill and Industrial areas.

Bihar State Industrial Development Corporation. (Please see "State Corporations").

Bihar State Superphosphate Factory, Sindri. (Please see under "Govt. Industrial Undertakings").

High Tension Insulator Factory, Ranchi. (See under "Govt. Industrial Undertakings").

Electric Equipment Factory, Tatisilwai: An Electric Equipment Factory is being established at Tatisilwai near Ranchi, for manufacture of electrical equipment such as power distributors, transformers, industrial motors and switchgears in collaboration with the G.E.C. of India.

The total estimated cost of the project is about Rs. 2 · 24 crores. The erection of the factory is likely to be completed soon.

Bihar State Agro Industrial Development Corporation. (Please see under "State Corporations").

Spun Silk Mill: A Spun Silk Mill is being established at Bhagalpur at an estimated cost of Rs. 143 lakhs. The mill will have 3,000 spindles for manufacture of pure silk yarn and 420 spindles for manufacture of ordinary yarn.

The mill is expected to go into production sometime in 1970.

Industrial Areas: Industrial areas have been established at Adityapur, Ranchi and Patna.

Three more Industrial areas at Barauni, Bokaro and Patratu are also being established.

Industrial Estates and Workshop Sheds: Industrial Estates have been set up at Muzaffarpur, Bhagalpur, Purnea, Daltonganj, Tillaiya (Hazaribagh), Ramnagar (Champaran), Barcon (Gaya), Lakhisarai (Monghyr), Jasidih and Murliganj (Saharsa) during the Third Five Year Plan. In all these estates altogether, construction of 183 factory sheds of different sizes has been completed out of which 110 sheds have been allotted.

### KHADI AND VILLAGE INDUSTRIES

The area of Bihar has been divided into 588 anchal-cumdevelopment Blocks, out of these 490 have been covered by some kind of development activity under the Khadi and Village Industries. In 1968-69 Khadi and Village Industries in Bihar produced articles worth Rs. 1,148·01 lakhs. The sales effected were Rs. 1,070·01 lakhs. The total number of persons finding part time or whole time employment was 2,61,368 and the sum of Rs. 349·11 lakhs was distributed among them as wages. The number of Khadi Bhawans in the State is 464.

Industries other than the Khadi, which are being organised in Bihar are as follows:—

Ghani oil, hand processing of cereals and pulses, leather, gur khandsari, palmgur, non-edible oil and soap, handmade paper, bee-keeping, pottery, fibre, cottage match, carpentry and blacksmithy, gobar gas, limestone and gram-ekai.

The Industries which have made considerable progress are ghani oil, hand processing of cereals and pulses and bee-keeping. The ghani oil industry has 882 co-operatives which have produced oil worth Rs. 406·81 lakhs and have given employment to 8,061 persons. The hand processing of cereals and pulses has 579 co-operatives which have produced rice worth Rs. 53·90 lakhs and have given employment to 8,322 persons. The bee-keeping industry made a remarkable progress in the year 1968-69. 7,099 bee-keepers produced honey worth Rs. 9·23 lakhs.

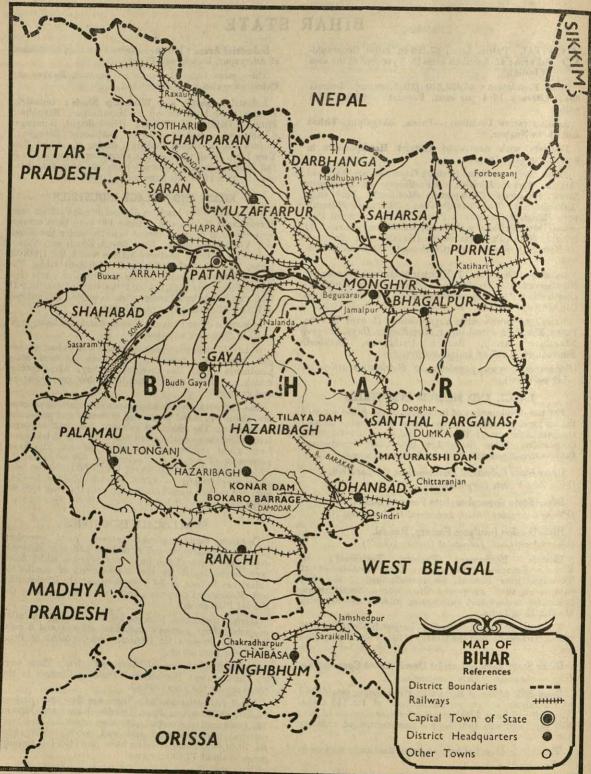
## SMALL-SCALE INDUSTRIES

Common facility service centres, rural workshop production centres, model workshops and raw materials depots are some of the important schemes which have been implemented for the development of small-scale industries. Fifteen model workshops namely Blacksmithy and Mechanised carpentry units were set up during the Second Plan period.

During the Third Plan period three industrial pilot projects, three women's industrial schools and 5 rural Industries projects for intensive development of rural industries were set up.

Cluster Type Industrial Training Centres: There were 20 Cluster Type Institutional Training Centres in the State during the year 1968-69.

Rural Industries Project: There are five such projects located at Nawadah, Pusa, Dumka, Buxar and Ranchi. 709 Co-operative Societies have been organised and these societies have produced and sold goods worth about Rs. 70,24,000. These societies have provided full employment to about 17,000 persons.



Assistance under the State Aid to Industries Act: A sum of Rs. 2.81 crores was sanctioned as loan under the State Aid to Industries Act during the three Plan periods and subsequently during the three annual plan periods.

## Bihar State Small Industries Corporation.

(Please see under "State Corporations").

Handloom: Handloom is the most organised cottage industry in the State employing nearly 10 lakhs of persons annually on two lakh looms which are capable of producing goods worth Rs. 30 crores per year. A State Handloom Board has been set up for initiating a comprehensive scheme of organisation and technical improvement like setting up of dyeing and finishing units.

Handicrafts: During the Third Five Year Plan two production centres, in cane and bamboo, one each in papier mache and one centre for bell and brass metal have been set up. A craft museum has been located in Patna for display of handicrafts products. For supply of raw materials to handicrafts workers at reasonable prices, a raw materials depot has been located in Patna. An institute of industrial designs is functioning at Dighas which besides making research in designs, also conducts training courses for artisans and instructional staff of training centres. Several procurement centres are being set up in different parts of the State.

Sericulture: Bihar is the largest producer of tassar in India and about one lakh persons in this State are engaged in different branches of this industry, from the rearing of silk worm to the finishing of silk fabrics. In 1967-68, 7.94 lakh disease-free layings were produced and distributed to 29,000 rearers free of cost; 1,31,928 kahans of tassars cocoons were produced, 31 Training programmes were organised, 2,430 persons were trained in tassar silk worm rearing, reeling and spinning of tassar and 473 reeling-cum-twisting machines and 473 improved spinning machines were distributed. The State Government has started three tassar marketing organisations in the district of Singhbhum, Santhal Parganas and Hazaribagh. Two silk Institutes at Bhagalpur and Chaibassa are run by the State Government to impart training in scientific method of sericulture.

MINERALS
(Latest available)

Mineral	Unit of quantity	Quantity	Value Rs. '000	
Apatite	Tonnes	5,111	228	
Asbestos		356	49	
Bauxite	,,	3,95,865	3,624	
Chinaclay (Saleable		1,35,994	19	
Chinaclay crude			a dia luerratse	
(Saleable)		1,810	19	
Chinaclay (Processed)		35,692	2,441	
Coal	1000 FF	30,252	842,859	
Copper Ore	THE SAME OF THE SA	458,981	24,227	
Dolomite		5,375	49	
Felspar	The Parcel of the	721	9	
Fireclay	Fine and appear only	154,366	1,320	
Iron Ore	a Total State of the last 1	5,380,974	78,446	
Kyanite		49,409	11,180	
Limestone	San Contract of the Contract o	2,082,508	20,511	
Manganese Ore		10,277	328	
Migg (amada		9,250	10,420	
Mina (gamen ata)		1,099	N.A.	
Quanta and Cili-		35,765	479	
Steatite	The second second second	4,358	23	

<sup>†</sup> Production (thousand bales of 180 kgs. each).

The districtwise distribution of the minerals (names of districts in brackets) is as follows:—

Apatite (Singhbhum); Asbestos (Singhbhum); Bauxite (Ranchi, Palamau & Monghyr); Chinaclay (Singhbhum, Bhagalpur, Santhalparganas, Ranchi); Chromite (Singhbhum); Coal (Dhanbad, Hazaribagh, Palamau & Santhalparganas); Copper Ore (Singhbhum); Crude Mica (Hazaribagh, Gaya, Monghyr); Dolomite (Singhbhum, Palamau, Shahabad, Hazaribagh); Felspar (Hazaribagh, Gaya, Monghyr); Fire-Clay (Dhanbad, Hazaribagh, Palamau & Santhal Parganas); Iron-Ore (Singhbhum, Palamau); Kyanite (Singhbhum); Limestone (Shahabad, Palamau, Hazaribagh, Singhbhum, Ranchi); Manganese Ore (Singhbhum, Phanbad); Pyrite (Shahabad); Quartz & Silica (Singhbhum, Dhanbad); Steatite (Singhbhum).

The State Government has formed a body known as the Mica Syndicate to improve the mica industry in Bihar. The State Government is also taking steps to set up cement factories, and investigations are in progress for the search of fresh lime stone deposits to feed these proposed factories.

The site of the proposed sulphuric acid plant has been shifted to Sindhri from Shahabad.

#### **AGRICULTURE**

Bihar, with 5.71 per cent of the Union's land area, has 10.59 per cent of her population. The proportion of total population depending on agriculture is estimated to be 77 per cent.

Total geographical area and classification as on May 31, 1969 in 1,000 hectares: 17,401; Forests: 2,892; Area put to non-agricultural uses 1,450; Barren and uncultivable land 1,158; Permanent pastures and other grazing land 206; Land under miscellaneous trees 192; Cultivable waste land 595; Area & production of food-grain crops (1968-69) (figures being in thousand hectares and thousand tonnes respectively): Rice 5,255·4; 4,731·6; Jowar 10·7; 6·2; Bajra 12·9; 9·0; Maize 989·1; 1,129·8; Ragi 206·1; 175·8; Small millets 247·7; 110·3; wheat 1,054·4; 913·5; Barley 360·9; 266·8; Total cereals 8,137·2; 7,343·0.

Oilseeds: Groundnut  $5 \cdot 2$ ;  $4 \cdot 2$ ; Castor seed  $6 \cdot 4$ ;  $4 \cdot 0$ ; Sesamum  $32 \cdot 3$ ;  $15 \cdot 7$ ; Rapeseed & Mustard  $79 \cdot 3$ ;  $39 \cdot 6$ ; Linseed  $63 \cdot 0$ ;  $18 \cdot 7$ ; Total  $186 \cdot 2$ ;  $82 \cdot 2$ .

Cotton†: 2·4; 3·3 ; Jute† 90·3; 399·9; Sannhemp 7·8; 2·8; Mesta† 23·4; 92·0.

Other crops: Tobacco 14.23; 13.5; Nigerseed 46.6; 14.9; Safflower 0.7; 0.3; Turmeric 7.3; 11.3; Potato 109.3; 1,117.1.

Sugarcane is mostly grown in the districts of Champaran, Saran, Darbhanga and Muzaffarpur. Jute is cultivated in the districts of Purnea and Saharsa. Tobacco is grown in Muzaffarpur, Purnea and Darbhanga.

There are about 503 seed multiplication farms in the State for growing nucleus improved seeds for distribution to the growers. Fertilizers are distributed to the cultivators through Bihar State Co-operative Marketing Union which maintain a net work of sub-centres throughout the State. The consumption of fertilizers has now reached a level of about 1·50 lakh tonnes of nitrogenous fertilizers and 0·50 lakh tonnes of phosphatic fertilizers. Intensive Package Programme has been initiated in the districts of Shahabad, Purnea, Saharsa, Monghyt, Patna, Gaya, Saran, Champaran, Ranchi and Santhal Parganas.

#### FORESTS

Main forest produce			Outturn (1966-67)		
Timber		orlean	17. H	- INCOME	3,35,594 Cubic meters
Fuel			WARE I		3,05,247 Cubic meters
Bamboo	16.30	(VALUE )	a XXXXXXX	10 Y 10	1,70,000 tons
Sabaigras	S	10 mg 3	Shirt in the	V VOUS	10,000 tons
Kendu le		do sant	Bir mills	11100	26,236 tons

Forests occupy about 31,427 sq. km. i.e., 18 per cent of the total land area of Bihar. There are two national parks, 16 games sanctuaries and 234 shooting blocks in the State.

An area of 1,24,978 hectares of land has been planted up to the end of 1967-68 with bamboo over 20,998 hectares, Eucalyptus 8,725 hectares, Teak 7,000 hectares, Sissoo 16,317 hectares and other species 71,938 hectares.

(See also under "Forests" for other particulars).

### ROAD TRANSPORT CORPORATION

"Sultan Palace", Patna

The total fleet strength at the end of the Third Plan was 1,146 and the number of schedules was 822. The scheduled mileage was 1.20 lakhs.

The Corporation serves 14 districts, 3 in North Bihar and 11 in South Bihar.

#### IRRIGATION

The water resources available and the present possibilities of utilising the same through various assured irrigation schemes in the three natural divisions of this State, (i) South Bihar Plains; (ii) Chotanagpur and Santhal Parganas; and (iii) North Bihar, have been assessed on the basis of the rainfall pattern and failure of crops and a master-plan of irrigation in Bihar has been prepared. The irrigation schemes aim at bringing 104 lakh acres of culturable land under assured irrigation.

Major and medium irrigation schemes are under the control of the Irrigation Department and the River Valley Projects Department.

During the three Five Year Plans and the subsequent three Annual Plans, a total irrigation potential of 32 lakh acres was created from major and medium irrigation schemes against which the utilization was of the order of 20 lakh acres.

By the end of the Third Five Year Plan period, about 5,00,000 acres of land had been reclaimed by drainage of chaurs.

During the first three Five Year Plans and the subsequent three Annual Plans, a sum of Rs. 40.56 crores has been spent on the flood control schemes in this State, giving protection against floods to an area of about 32 lakh acres.

## **POWER**

An initial provision of Rs. 79·55 crores including the sum of Rs. 20·04 crores earmarked for the power schemes of the D.V.C., was made in the Third Five Year Plan, against which the Bihar State Electricity Board spent Rs. 80·92 crores on its various schemes during the Third Plan period. During the subsequent three Annual Plans a sum of Rs. 58·74 crores has been spent by the Board.

The major power generating schemes under execution of the Bihar State Electricity Board consist of (a) Patratu Thermal Power Station at Patratu in South Bihar, (b) Barauni Thermal Power Station at Barauni in North Bihar,

(c) Subarnrekha Hydel Power station at Getalsud in South Bihar and (d) Kosi Hydel Power Station at Birpur in North Bihar. The first two already generate electricity. The progress of electrification up to 1968-69 is given below:—

Item	Achieve- ment at the end of the First Plan	Achieve- ment at the end of the Second Plan	Achieve- ment at the end of the Third Plan	Achieve- ment at the end of 1968-69
Diesel Stations (MW)	6,049	13,377	13,925	13,650
Thermal Stations (MW)		OR OHE	45.0	195
km)	New York		964	1,701
H. T. Lines (in km) L. T. Lines (in	4,685	11,742	18,855	25,189
km)	1,365	5,930	11,545	24,081
Substations:  (i) grid substations (Capacity in MVA)  (ii) power substations (ca-		20	175-5	309
pacity in MVA) Tubewells and surface wells	12.5	105-95	218.70	466.30
energised Towns and vil- lages electri-	1,253	4,291	10,556	49,528
fied	364	2,475	3,990	6,685

Patratu Thermal Power Station: In the first stage the Power Station will have an installed capacity of 400 MW consisting of four sets of 50 MW each and two sets of 100 MW each. In the second stage the capacity is to be augmented to 620 MW by addition of two sets of 110 MW each during the Fourth Plan period. Three sets of 50 MW each have already been commissioned. The fourth 50 MW set was also commissioned in October 1969. The total estimated cost of the 400 MW stage is Rs. 5,271·10 lakhs and for the extension Project of 220 MW Rs. 3,700·00 lakhs.

Subarnrekha Hydel Power Station: The total installation will consist of two sets of 65 MW each. No substantial progress has been made except for investigation and design work. Work on intake structure has started. The scheme is expected to be completed in 1973-74. The estimated cost of this project is Rs. 1,290·00 lakhs. Owing to increase in prices, the cost estimate is being revised.

Barauni Thermal Power Station: The total capacity envisaged under the scheme is 145 MW consisting of three sets of 15 MW each and two sets of 50 MW each. Three 15 MW sets have already been commissioned. The first 50 MW set was also commissioned in August 1969. The total estimated cost of the scheme is Rs. 1,914·00 lakhs.

Gandak Hydel Power Station: It is proposed to construct a power house with three sets of 5 MW each on the western canal of the Gandak Project. Civil work has commenced and detailed design is in progress. It is expected that the three units will be commissioned by 1972-73. The revised cost of the scheme is estimated at Rs. 517-90 lakhs.

Kosi Hydel Power Station: It will have four sets of 4.8 MW each. Civil works are complete and the erection of the power plant is in progress. The estimated cost of the schemes is Rs. 700.00 lakhs (revised). One set was likely to be commissioned by the end of 1969-70.

Railway Electrification Scheme: With a view to augmenting the transportation capacity of the railways the programme of electrification of large sections of the S.E. Railway and the Eastern Railway was taken up. For supplying power to the various substations along the Rly. tracks, 160 miles of single circuit 132 KV line and 118 miles of double circuit 132 KV transmission lines and six stations were constructed. The work was completed during 1961-63. The cost of the scheme was Rs. 419.98 lakhs.

Maithon-Sultanganj Transmission Scheme: A 110 mile long 132 KV transmission line extending from Maithon to Sultanganj was constructed in 1961-62 in order to meet the demand for power in East Bihar region, Substations were also erected at Deoghar and Sultanganj during 1963-64. The revised cost of the scheme is put at Rs. 267-69 lakhs.

Transmission: For transmitting the electrical energy generated at Barauni, Patratu, Subarnrekha, Gandak and Kosi power stations, it is proposed to have a wide network of 220 KV and 132 KV transmission lines together with 220/132 KV and 132/33 KV grid substations at various load centres in the State. By the end of the Third Plan, 50 miles of 132 KV double circuit transmission line from Ramgarh to Hatia via Patratu and 70 miles of 132 KV double circuit transmission line sof 132 KV double circuit transmission line connecting Barauni with Muzaffarpur were completed.

After the Third Plan, the Board has completed 220 KV line from Hatia to Chandil (67 miles), 220 KV line from Patratu to Gaya (85 miles), 132 KV single circuit line from Barauni to Purnea (120 miles), 132 KV single circuit line from Chandil to Adityapur (10 miles), 132 KV line from Gaya to Mokameh (93 miles), 132 KV line from Samastipur to Chapra (71 miles), and commissioned 132/33 KV Grid Sub-stations at Muzaffarpur, Hatia, Karmasa, Kendposi, Biharshariff, Adityapur, Samastipur and Purnea. The scheme to link up North and South Bihar at 132 KV by laying a cable over the Mokameh Bridge was completed in August 1969.

Rural Electrification: 3,990 villages and towns were electrified and 10,556 tubewells/surfacewells energised by the end of the Third Plan. A record number of 14,012 tubewells/surfacewells were energised in some 3,314 villages during 1966-67 when there was widespread drought in the State. The Board energised 15,807 pumping sets in about 664 villages during 1967-68, 9,153 pumping sets in about 915 villages during 1968-69. The total number of pumping connections given upto March 1969 was 49,528, and that of villages/towns electrified 6,685.

Per Capita Consumption: The per capita consumption of electricity in Bihar increased from 41 units as at the end of the Second Plan to 66 units as at the end of 1968-69.

#### LAND TENURE

At present all intermediary interests have been acquired by the Government. The Zamindari system in Bihar now stands completely abolished.

The Government has laid down a sliding scale for the assessment of compensation. Where the net income does not exceed Rs. 500, the compensation payable is twenty times the net income, and where the net income computed exceeds Rs. 1,00,000 it is payable at three times the amount subject to a minimum of Rs. 4 lakhs.

The total compensation is estimated at about Rs. 100 crores besides Rs. 51·25 crores payable as interest on the bonds. Of this, a sum of Rs. 16·54 crores in bonds, Rs. 7·76 crores by adjustment against Govt. dues and Rs. 9·74 lakhs in cash totalling Rs. 24·39 crores have been paid up to 1968-69.

Provision has also been made for ad-interim payment. A total sum of Rs. 20.98 crores has also been paid upto the period ending 31st March, 1969 on this account.

The assessment of compensation for mines and minerals has either to be fixed by agreement or by a tribunal appointed for the purpose.

As for funds to finance compensation, the proposal for Zamindari abolition in Bihar has been drawn up as a selfliquidating scheme.

The gross rental from the agricultural lands including cess, road cess and other miscellaneous demands in the State is about Rs. 9.53 crores, which is likely to increase further as a result of reclamation of waste lands and fixation of rent on unassessed lands.

## COMMUNITY DEVELOPMENT AND PANCHAYATS

The Community Development Programme now extends over the entire State of Bihar. There are 587 blocks of which 90 are in Stage I while 181 and 316 are under Stages II and Post Stages II respectively. Besides the normal programme of all round development, special programmes like the Applied Nutrition in 59 blocks (upto 1969-70), drinking water well construction in all blocks and tribal development in 63 blocks (upto 1969-70) are also being implemented.

As in other States, the Panchayati Raj scheme in the State has also three tiers of local administration—Village Panchayats at the village level, Panchayat Samities at the Block level and Zilla Parishads at the district level. This Panchayati Raj Scheme is in force in three districts only of the State: Viz. Bhagalpur, Ranchi and Dhanbad.

#### CO-OPERATION

Figures as of June 1969:

Number of Co-operative Societies of all types—36,000; Membership— $32 \cdot 16$  lakhs.

Types of Co-operative Societies and number of each type as on 30th June 1969:

Provincial and Central Co-operative Banks 29; other central societies 81; Co-operative Farming Societies (including Sarvodaya Samities) 339; Agricultural Credit Societies 16,500; Weavers' Co-operative Societies 1,167; Oilmen's Co-operative Societies 1,096; Fishermen Co-operative Societies 346; Co-operative Stores 600; Primary Marketing Societies 273; Salary Earners' Co-operative Societies 263; Canegrowers Co-operative Societies 4,231; Milk Societies 218; Industrial Societies and other types of societies 11,062.

Weavers' Societies: No. of societies as on 30th June, 1969—1,167; value of goods produced Rs. 340.00 lakhs.

#### LIVESTOCK

According to the Livestock Census 1966, Bihar possesses the following livestock: Cattle 1,51,56,456; Buffaloes 36,54,364; Sheep 12,46,890; Goats 78,01,141; Pigs 6,46,248; Poultry 1,08,49,858; Horses and Ponies 1,15,828; Camels 122; Mules 1,519; Donkies 32,810. Total livestock: 2,86,55,428.

Cattle Development: At present seven Govt Cattle breeding farms and one Bull Rearing Farm are functioning in the State to produce improved bulls. In addition.

47 key village blocks, 10 large town A.1 centres, 107 artificial insemination centres, 6 key village extension centres, three semen banks and two intensive cattle development blocks are functioning in the State for upgrading the local cattle, more milk yield and better draught performances. 208 improved bulls have been distributed in the Community Development Blocks for natural mating during 1966-67.

Piggery Development: For the development of pigs, a Piggery Development Unit and 15 Piggery Development Blocks are functioning. Besides, a Pig Breeding Farmcum-Bacon Factory is being established at Kanke (Ranchi).

Sheep & Goat Development: Two sheep breeding farms are functioning in the State, one at Chatra and another at Gaya. Besides, 20 Sheep and Wool Extension Centres have been established for the production of quality wool and mutton. 49 rams and 308 bucks have been distributed in C. D. Blocks during 1966-67 for grading up the local sheep and goat respectively.

Poultry Development: For the development of poultry, birds of improved breeds are being introduced in the State through four range poultry farms, 21 poultry extension centres, 12 poultry development centres, 11 poultry farms at C. D. Block headquarters in the industrial belt, 92 poultry hatching and rearing centres, two intensive poultry development blocks and two intensive egg and poultry production cum marketing centres. A small poultry dressing plant has started functioning at Patna to meet the demand of dressed poultry meat and another is being established at Ranchi. 42,570 improved birds, 86,742 eggs, 60,777 day old chicks have been distributed in the State during the year 1966-67.

Disease control: 632 veterinary hospitals and dispensaries including 18 mobile veterinary dispensaries are functioning in the State.

Other Institutions: Bihar Veterinary College, Patna; Veterinary College, Ranchi; Livestock Research Station, Patna; Animal Production Research Institute, Pusa; Stockman Training Centre, Dumraon; Extension Training Centre, Bhagalpur.

## HEALTH SERVICES

The following particulars are for 1969-70:

Allopathic hospitals 135; Allopathic dispensaries 895; Primary health centres 587; Beds in allopathic hospitals including primary health centres 13,466; Ayurvedic and Unani dispensaries 336; T. B. hospital 1; Mental hospitals 2; Beds in T.B. hospitals 1,362 and in Mental hospitals 2,083.

Allopathic doctors 10,003; Nurses 881; Student Nurses 2,194; Lady Health Visitors 311; Dais/Nurse-Dais 2,650 (trained); Compounders 4,586; Ayurvedic and Unani doctors 336; Compounders in Government employment 691.

Number of Medical Colleges (Allopathic) 4; Dental Colleges 1. Annual intake of the medical colleges 630.

There is one Govt. T.B. sanatorium at Itki, two T.B. Demonstration Centres one at Patna and the other at Darbhanga, one Govt. Hospital at Koilwar, three private sanatoria, two at Ranchi and one at Dehri-on-Sone (Shahabad) and 28 T.B. clinics.

There is a leprosarium at Brambay near Ranchi with a provision of 150 beds. Two leper asylums one at Gaya and the other at Deoghar with bed capacity of 150 and 100 respectively are also functioning. The leprosy subsidy centre at Monghyr with 30 beds is also functioning.

Under health schemes the programmes for the eradication of malaria and small-pox, and family planning have been intensified during the year 1968-69. During 1969-70, 587 primary health centres were functioning in the State.

#### LABOUR

Number of registered factories as on Dec. 31, 1967: 14,136; number of workers employed: 2,51,727.

Number of employees covered by the Employees State Insurance Scheme as on March 31, 1968: 63,500.

Number of Employment Exchanges during 1969: 26; Employment Information and Assistance Bureaux 6; University Employment Information and Guidance Bureaux 4; Vacancies notified 43,180†.

25 welfare centres were opened till March, 1968 by the State Government to provide opportunities for cultural activities and sports and training in crafts for supplementing the industrial income.

#### HOUSING SCHEME

The progress of the various Housing Schemes since the inception of the Housing Department is given below:

Name of the scheme, provision, expenditure and physical achievement respectively are as follows. The provision and expenditure are given in rupees lakhs.

Subsidised Industrial Housing Scheme 338·47; 323·77; 10,222; Low-Income Group Housing Scheme 374·60; 375·41; 4,532; Slum Clearance Scheme 138·57; 123·77; 272; Middle-Income Group Housing Scheme 201·82; 178·24; 893; Land Acquisition and Development Scheme 311·37; 275·30; 621 acres of land acquired; Housing Scheme for Scheduled Castes 88·76; 72·49; 7,111; Rental Housing Scheme 82·30; 65·71; 648.

### **EDUCATION**

The State Government provides free and compulsory primary education for all children of the age-group 6-11. At the end of 1968-69, there were 44,500 primary schools with 44.44 lakh pupils and 95,441 teachers. The number of pupils in the middle school, in the age-group of 11.14, was 8.2 lakhs. The number of high school attending pupils was 5.09 lakhs.

At the end of the three Annual Plans, the percentage of the pupils in 6-11 age-group was 57.4.

#### **POPULATION**

(See article on "Population".)

#### BHAGALPUR UNIVERSITY

Bhagalpur.

Chancellor, Nityanand Kanungo; Vice-Chancellor, Satyendra Narayan Aggarwal; Registrar, Amarendra Narayan.

Bhagalpur University is a teaching and affiliating University.

The medium of instruction in all the non-language subjects for the Pre-University, 3-year Degree Course, B.A., B.Sc., B.Com., Examinations in Arts, Science and Commerce is Hindi provided that technical terms in English may be used for the present. The medium of instruction in non-language subjects for all other examinations is English.

Provision for teaching upto the Post-Graduate Standard exists in the following subjects:—(a) Hindi (b) Commerce (c) Rural Economics & Cooperation (d) Sociology (e) Labour and Social Welfare (f) Statistics (g) English (h) Political Science (i) Philosophy (j) Mathematics

(k) Economics (l) History (m) Psychology (n) Physics (o) Chemistry (p) Botany (q) Zoology. There is also provision for research by scholars for doctorate degrees.

Number of Post-Graduate Departments: Arts 10, Science 6, Commerce 1.

Number of Colleges: Constituent colleges 3. Affiliated 44. Technical & Professional 5.

Number of students: -35,275 (Men 33,302, Women 1,973).

## Budget Estimates (1968-69)

Rs. 1,09,45,288 1,19,87,022

Income ...... I

#### UNIVERSITY OF BIHAR

Muzaffarpur.

Chancellor, Nityanand Kanungo; Vice-Chancellor, Dr. P. S. Muhar; Registrar, Dr. K. S. Varma.

The Bihar University is a teaching-cum-affiliating University.

Medium of instruction: Hindi upto Bachelor's degree in the Faculties of Arts, Science and Commerce.

Number of colleges affiliated: Constituent Colleges: 4; Technical and Professional Colleges: 6; Affiliated Colleges: 35.

Number of students: 41,640 (1967-68).

Income (1968-69 budget estimates): Rs. 1,06,69,925; Expenditure Rs. 1,06,99,977.

## MAGADH UNIVERSITY

Bodh Gaya

(Camp-Gaya, Bihar)

Nature: Teaching-cum-affiliating University.

Medium of Instruction:—English in Post-Graduate Classes and Hindi up to Degree Standard.

Chancellor, Governor of Bihar; Vice-Chancellor, B. M. K. Sinha; Registrar, K. P. Sinha.

# KAMESHWARA SINGH DARBHANGA SANSKRIT UNIVERSITY

Darbhanga (Bihar).

Chancellor, Governor of Bihar; Vice-Chancellor, Vacant; Registrar, Dr. S. N. Choudhary.

The University provides teaching in all branches of Sanskrit learning in both the Systems of Prachin and Navin from Madhyama upto Acharya Examinations (including Shiksha Shastri (B.Ed.) Acharya is the highest standard of teaching. Sanskrit is the official language of the University.

The subjects taught are:—Veda, Darshan, Vyakaran, Jyotish, Dharmashastra, Puran, Arthashastra, Sahitya and Ayurveda etc., etc. along with a comparative study of these with the advancement of modern allied subjects.

It provides higher researches in all the above mentioned branches of Sanskrit learning.

Number of Colleges: Government Colleges 4, Affiliated Colleges 32, Govt. Sanskrit High School 17, Affiliated High School 84 and Vidyalayas 300.

It awards degrees of Madhyama, Shastri, Acharya and Shiksha Shastri which are equivalent to B.A., M.A. and B.Ed. in the modern University and research degrees of Vidyavaridhi and Vidyavachaspati which are equivalent to the degrees of Ph.D. and D.Litt. respectively.

#### PATNA UNIVERSITY

Patna 5.

Chancellor, Governor of Bihar; Vice-Chancellor, Dr. K. K. Datta; Treasurer, R. Chinnappa; Registrar, Sita Ram Prasad.

No. of Constituent Colleges: 10.

University Departments: Arts, Science, Medicine, Commerce, Education and Law.

Number of teachers in the University during 1966-67: 700.

Number of students in the University (1967-68): 12,346 (Men and Women).

The language of instruction and examination is Hindi in all undergraduate classes in the Faculties of Arts, Science and Commerce and Bachelor of Education examinations. Hindi or English is the medium of instruction in every subject other than languages for the Master's examinations in Arts, Commerce and Education. English is also the medium of instruction for the Master's degree in the Faculty of Science and all the examinations in the Faculties of Law, Engineering and Medicine.

### RANCHI UNIVERSITY

Ranchi

Chancellor, Governor of Bihar; Vice-Chencellor, Dr. George Jacob; Treasurer, S. G. Minz; Registrar, D. P. Varma.

The Ranchi University is a teaching-cum-affiliating University.

Medium of Instruction: Hindi upto Bachelor's degree in Arts, Science and Commerce and Hindi and/or English for the Honours and Post-graduate classes in Arts and Science. For the rest of the Faculties the medium of instruction is English.

Number of Colleges affiliated: Constituent Colleges: Four; Technical and Professional Colleges: Nine; Other Affiliated Colleges: 28.

Number of students: 36,892 (1968-69).

Income: Rs. 1,30,09,492 (1968-69).

Expenditure: Rs. 1,45,35,752 (1968-69).

Grant from the State Government and U.G.C. Recurring Rs. 33,98,329 (1968-69). Non-recurring Rs. 16,91,500 (1968-69).

### **ASSOCIATIONS**

ALL INDIA ADIBASI MAHASABHA Ranchi.

ALL INDIA JHARKHAND PARTY Pathal Kuduwa, Ranchi.

BIHAR CHAMBER OF COMMERCE Judges' Court Road, P.O. Box No. 71, Patna 1. President: K. N. Sahaya; Hon. Secy.: C. M. Saxena. BIHAR INDUSTRIES ASSOCIATION Sinha Library Road, Patna-1.

CHOTANAGPUR CHAMBER OF COMMERCE AND INDUSTRY

Post Box No. 32, Main Road, Ranchi.

EASTERN BIHAR CHAMBER OF COMMERCE Bhagalpur 2.

GOVERNMENT SILK INSTITUTE
Bhagalpur.

GOVERNMENT VACCINE INSTITUTE AND PASTEUR INSTITUTE

Namkum (Ranchi).

INDIAN COLLIERY OWNERS ASSOCIATION P.O. Box No. 70, Dhanbad.

INDIAN COUNCIL OF SOCIAL WELFARE Bihar State Branch, Annie Besant Road, Patna 4.

INDIAN INSTITUTE FOR CULTURAL STUDIES

P. O. Mandar Vidyapith (Dt. Bhagalpur).

INSTITUTION OF ENGINEERS (INDIA) Huda House, Gandhi Maidan Road, Patna 1.

JAMSHEDPUR CHAMBER OF COMMERCE 35, Laxmi Mansion, Jamshedpur.

K. P. JAYASWAL RESEARCH INSTITUTE Museum Buildings, Patna-1.

MUZAFFARNAGAR CHAMBER OF COMMERCE Muzaffarnagar.

NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY
Ranchi.

NAVA NALANDA MAHAVIHARA

(Nalanda Institute of Post-Graduate & Research in Buddhist Learning and Pali). Nalanda (Dt. Patna).

NORTH BIHAR CHAMBER OF COMMERCE AND INDUSTRY
Muzaffarpur.

RESEARCH INSTITUTE OF PRAKRIT, JAINOLOGY & AHIMSA Vaishali (Dt. Muzaffarpur).

> RURAL INSTITUTE Birouli (Dt. Darbhanga).

SOIL CONSERVATION SOCIETY OF INDIA 15, Bayley Road, Patna.

YOGODA SAT-SANGA VIDYALAYA Ranchi.

Imparts academical and spiritual education. Medium— English.

### ADMINISTRATIVE PERSONNEL

Patna

#### Governor

NITYANAND KANUNGO

#### **Ministers**

Chief Minister: Political, Police, Political Special Section, Cabinet Secretariat, Political General (excluding Tourism, Information and Transport), Appointment, Finance, Irrigation, Power, Labour and Employment, Excise, Commercial Taxes and Education, Daroga Prasad Rai.

Industries and Technical Education, Kedar Pandey.

Land Reforms, Revenue, Rehabilitation, Registration and Planning, Chandrasekhar Singh.

Housing, Mines and Geology, Nagendra Jha.

Forests, Tourism and Sports, Beagun Sombrai.

P.W.D., Rameshwar Paswan.

Agriculture, Minor Irrigation, Fisheries and Gandak Area Development, Ram Jaipal Singh Yadav.

Community Development, Panchayati Raj and Public Health Engineering Department, Baleshwar Ram.

Social Welfare and Animal Husbandry, Mochi Rai Munda.

 $River\ Valley\ Projects\ and\ Kosi\ Area\ Development,\ {\bf Lahtan}\ Chaudhury.$ 

Cooperation, Sugarcane, Information, Zawar Hussain. Health and Transport, Shankar Dayal Singh.

Local Self Government, Town Planning, Jails and Probation Services, Satrughan Sharan Singh.

Law, Supply and Commerce, Mohammad Hussain Azad.

#### Ministers of State

Irrigation and Power, Narsingh Baitha; Finance, Nathuni Ram Chamar; Labour and Employment, Sadanand Prasad;

Welfare and Forest, Ghanshyam Mahto; Education, Niteshwar Prasad Singh; Industries and Technical Education, Prem Chand; Parliamentary Secretaries, Paika Murmu, Madan Prasad Singh, Mahant Mahadevanand Giri.

#### Secretariat

Chief Secretary, S. N. Singh, I.A.S.; Addl. Chief Secretary, R. S. Mandal, I.C.S.; Secretary, Political (Special), P. P. Nayyar, I.A.S.; Secretary, Political (General), J. N. Sahu, I.A.S.; Secretary, Political (Appointment), V. Narayan, I.A.S.; Finance Commissioner, A. Karim, I.A.S.; Additional Secretary, Finance, N. Nagmani, I.A.S.; Secretary, Revenue, J. P. Shrivatsava, I.A.S.; Secretary, Labour, K. K. Shrivastava, I.A.S.; Secretary, P.W.D., N. Prasad, I.A.S.; Health Commissioner, V. P. Kashyap, I.A.S.; Agricultural Production Commissioner, S. K. Chakravarty, I.A.S.; Food Commissioner, S. Sahay, I.A.S.; Civil Defence Commissioner, B. N. Basu, I.A.S.; Vigilance Commissioner, N. P. Mathur, I.A.S.; Education Commissioner, N. P. Singh, I.A.S.; Secretary, Local Self-Government & Housing, I. N. Thakur, I.A.S.; Secretary, Community Projects and Panchayat, R. B. Lal, I.A.S.; Secretary, Electricity and Irrigation, S. N. Chakravarty, I.A.S.; Secretary, Law & Prison, Jatendra Narayan; Secretary, Welfare, S. N. Sharma, I.A.S.; Industries Commissioner, K. Singh I.A.S.; Secretary, Co-operative and Cane, R. D. Pandey, I.A.S.; Secretary, Planning, H. Prasad, I.A.S.

## HEADS OF DEPARTMENTS

Chief Administrator, River Valley Projects, S. A. F. Abbas, I.A.S.; Chief Conservator of Forests, S. P. Sahi; Chief Inspector of Factories, Atma Nand Singh; Commissioner of Labour, S. N. Sehgal, I.A.S.; Director of Agriculture, J. N. Mishra; Director of Animal Husbandry, Y. Prasad; Director of Industries, K. P. Sinha; Director of Health

DELHI

Services, Dr. S. N. Prasad; Director of Public Relations, S. N. Mallick, I.A.S.; Director of Public Instruction, N. S. Nagendra Nath; Inspector-General of Police, R. A. P. Sinha, I.P.; Inspector-General of Prisons, K. M. Zuberi; Acting Registrar of Co-operative Societies, F. Ahmad; Chief Engineer (Kosi Project), S. K. Banerjee; Chief Engineer (Gandak and Sone Projects), Vacant; Director of Tourism, Umanath; Transport Commissioner, S. M. Ghosh; Director, Statistics, Dr. L. Narain; Director, Gram Panchayat, U. N. Sinha; Chief Engineer, (Tenughat Dam Project), K. K. Verma; Director, Bihar State Lotteries, K. N. Ardhanareeswaran.

#### HIGH COURT

#### Patna

Chief Justice, Satish Chandra Misra; Judges: Ujjal Narain Sinha, Nand Lall Untwalia, Shyamnandan Prasad Singh, G. N. Prasad, A. B. Sinha; Ranbir Jang Bahadur, Saiyid Anwar Ahmad, Kamala Kant Dutta, Mahendra Prasad Verma, Krishna Ballabh Narayan Singh, Baidyanath Jha, Shambhu Prasad Singh, Balmiki Prasad Sinha, Prafulla Kumar Banerji, B. D. Singh; Addl. Judges, Kanhaiyaji, Syed Wassiuddin; Registrar, Chandrika Prasad Sinha.

## DELHI

AREA: 1,483.05 Sq. Kms.; Pop. 37.66 Lakhs.

Delhi is a Union Territory. Has an elected Metropolitan Council consisting of 61 members including 5 nominated by the President of India.

The Lt. Governor is the Administrator who is assisted by 4 Executive Councillors (one Chief Executive Councillor and three Executive Councillors) appointed by the President of India on the recommendation of the Union Home Ministry.

The presiding officer of the Metropolitan Council is called Chairman of the Metropolitan Council.

The entire Territory is covered by three Local Bodies viz. Delhi Municipal Corporation, New Delhi Municipal Committee and Delhi Cantonment Board.

The Union Territory has a High Court. From 2nd October, 1969 the judiciary has been separated from the Executive.

(Figures given below are the latest available.)

#### REVENUE AND EXPENDITURE

The total revenue receipts for 1969-70 has been estimated to be Rs. 4365·60 lakhs. Total expenditure on the other hand, has been estimated to be Rs. 7371·49 lakhs. Out of this the Plan Schemes account for Rs. 23 crores. The major items of expenditure are loans and advances (Rs. 2,673·27 lakhs), Housing Scheme Revolving Fund, Public Buildings Junghi Jhompri etc. (Rs. 1,419 lakhs), Education (Rs. 1,400·59 lakhs) and Police (Rs. 564·13 lakhs).

## IMPORT OF ESSENTIAL ARTICLES

The following are the estimated quantities of certain selected commodities imported into Delhi Territory (monthly average in tonnes) for the calendar year 1966:

Wheat 50,938; Gram 1,959; Rice 788, Pulses 1,027; Refined Sugar 8,325; Tea 360; Ghee, Cream and Butter 2,286; Dried Fruits and Nuts 4,357; Provisions 2,062; Spices 619; Steam Coal, Soft Coke and Hard Coke 1,00,233; Kerosene Oil ('000 litres) 9,505; Hides and Skins 372; Agra Stone 9,161; Cement 32,138; Chemicals 1,483; Face Cream etc. 22; Hair Oil 53; English Medicines 2,452; Soap 349; Shoe and Chappal, 212; Hardware and Cutlery 8,852; Photo Goods 123; Betel Leaves 56.

### INDUSTRY

The main industries are: room coolers; power presses; electric motors; amplifiers; radio parts; automobile accessories; bicycle parts; lathe machines; drilling

machines; bicycle parts; safety razor blades; cotton mills; hand and powerloom weaving; hosiery; pottery; flour mills; vegetable oil mills and expellers; paints and varnishes; rubber goods; imitation jewellery; copper and brass utensils; wire netting; sola hats; leather goods, sports goods, tanning and fibre industry.

The total number of registered factories at the end of 1968 was 1,504 with an average daily employment of about 78,000 workers.

The total number of handlooms in Delhi is 2,015 and the total production is estimated at Rs. 117 lakhs.

The prototype production-cum-training centre at Okhla Industrial Estate is an Indo-German venture. This will manufacture prototypes of machines and machine tools and train about 500 workers every year.

#### **Industrial Estates**

The Okhla Industrial Estate, seven miles south of Delhi is one of the biggest of its kind in Delhi. There are 35 factory sheds in Okhla Industrial Estate, Phase I and 45 factory sheds in the Okhla Industrial Estate, Phase II. 41 Sports Goods factories have also been set up at Okhla Industrial Estate. These factories are exclusively meant for sports goods factories. The items manufactured by the units in the Estate include amplifiers, radio parts, electric motors, room coolers, power presses, automobile accessories, bicycle parts, lathes, drilling machines, machine tools, safety razor blades, insulated wires and household and utility articles, sports goods and dolls etc.

In the Badli Industrial Estate set-up in the rural area, 7 sheds were constructed and occupied by the industrialists and are engaged in the manufacture of agricultural implements, stainless steel utensils, hospital equipment, time pieces, autoelectric cables, insulated cloth, processed nylon yarn and electrical iron clad switches.

#### Employment

According to 1967 figures there were 11,539 registrations (monthly averages) at the Regional Employment Exchange and 2,758 placings against 3,189 vacancies notified. The number of registrations on the live register at the close of 1967 was 74,565. The number of registrations for March 1968 was 9,290 and placings 2,097 against 2,795 vacancies notified. The total number of registrations at the end of the month was 78,377.

## **AGRICULTURE**

Figures given below are for 1967-68:

Total land: 365,598 acres; area under forests: 7,688 acres; area not available for cultivation: 1,05,587 acres; other uncultivated land excluding fallow land: 7,906

acres; fallow land: 41,274 acres; net area sown: 2,03,143 acres; total irrigated area: 62,463 acres.

Area in hactares and production in metric tonnes respectively of each crop for the year 1968-69 are given below. Figures in brackets show production.

Rice: 3,138 (3,395); Wheat: 41,842 (68,964); Jowar: 8,012 (2,732); Bajra: 19,130 (13,992); Maize: 1,413 (893); Barley: 2,456 (2,015); Gram: 4,625 (2,687); Sugarcane: 2,337 (1,231); Oilseeds (Rape & Mustard): 512 (80); Cotton: 313 (111).

#### Land Reforms

The Delhi Land Reforms Act, 1954 provides for the abolition of proprietary rights and conferment of ownership on all tenants and subtenants from whom compensation would be recovered and paid to owners. Over 8,000 tenants of various categories have acquired Bhumidari rights in an area of about 38,000 acres.

The Delhi Land Reforms Act was amended in October 1956 to exclude areas controlled, notified, held, occupied or owned by the Delhi Improvement Trust from the purview of the Act.

The Delhi Land Reforms (Amendment) Act, 1959 removes some difficulties in the working of the Act and includes Improvement Trust areas excluded by the 1956 Act.

The Delhi Landholders (Ceiling) Bill passed in Aug. 1960, fixes the ceiling on land holdings at 30 standard acres for a family of five. Leases in future have been prohibited except by small owners holding less than eight standard acres and persons suffering from a disability. Future tenants will have a minimum term of five years. The maximum rent has been fixed at one-fifth of the gross produce.

#### Dairy, Poultry

It is estimated that there is one milch animal for every 52 or 53 persons. The annual average yield of a cow and buffalo comes to 14.41 quintals and 24.49 quintals respectively.

The annual average daily production of milk is estimated at 3,602 quintals.

According to the livestock census 1966, the total number of poultry stands at 1,37,398, out of which 8,241 are cocks; 79,662 hen; 47,597 chickens and 1,898 Ducks and other poultry. The number of improved varieties amongst the fowls is 1,07,972 out of the total of 1,35,500 which reveals that improved varieties of fowls are becoming popular in the Union Territory of Delhi.

#### TRANSPORT

Delhi occupies a pivotal point in the network of national railways, highways and airways. It is one of the biggest railway junctions in the country. All the principal inter-State roads of significance converge on Delhi. It is also linked with important cities and foreign countries by air through its two airports, Safdarjung and Palam.

The Delhi Transport Undertaking of the Delhi Municipal Corpn. had (as on 30th April, 1969) 1,203 buses operating on 60 routes (excluding 10 inter-State routes). Daily average operating kilometers during the month was 1.77 lakh kms. Number of Traffic accidents during the year 1968 was 1,858 in which 354 persons were killed and 1,574 injured.

(See main article 'Roads' for more details.)

#### HEALTH

(Monthly Average 1967/68)

Per thousand of population: Birth rate 28.3; death rate 7.5; infant mortality rate: 64.1.

Deaths: Caused by fever 3,085; Dysentery and Diarrhoea 867; Respiratory diseases 2,999 and Injuries and suicides 748 and others 17,877.

There are 43 hospitals and 45 dispensaries and 7 Primary Health Centres. The total bed strength is about 9,338.

#### **EDUCATION**

The number of Higher Secondary Institutions during the year 1968-69 was 445. Sixteen new Higher Secondary Schools have been opened in rural and urban areas and 7 schools have been merged with other schools during 1969-70.

The number of all types of institutions on general education at Pre-Primary, Primary, Middle and Higher Secondary Stage was 1,879 during 1968-69 and the total enrolment in these schools was 7,90,917 in that year,

Out of 445 Higher Secondary Schools in Delhi during 1968-69, 277 were providing instructions in science subjects at the higher secondary stage. Since 1962, 41 text books have been nationalised in one or more than one edition.

Number of Arts and Science Colleges in Delhi stood at 39 as on 1st August 1968. There were 12 colleges of engineering and technology during 1966-67.

#### COMMUNITY DEVELOPMENT

The village development scheme covers 277 villages under five community development blocks viz., Alipur, Najafgarh, Shahdara, Mehrauli and Kanjhawala. The area is also covered under the Intensive Agricultural District Programme. 172 Gram Panchayats and 23 Circle Panchayats were functioning on 31st May, 1969. The total number of Co-operative societies as on June 30, 1969 stood at 656 with a membership of 47,075.

## **DELHI DEVELOPMENT AUTHORITY**

The Delhi Development Authority formed in December 1957 has drawn up a Master Plan for planned development of the national capital.

Under its programme, the D.D.A. has so far acquired 30,000 acres of land, out of which 23,000 acres have been taken over by D.D.A. itself for implementing different schemes. About 13,000 residential plots have been provided. Besides, 1,200 builtup flats have been disposed of. Several big projects like construction of Inter-State Bus Terminus at Kashmere Gate, Cycle market at Jhandewalan, redevelopment of Jama Masjid area etc. have been launched. An ambitious River-Front Scheme has been launched with a view to improving the western bank of river Jamuna.

#### **DELHI MUNICIPAL CORPORATION**

The Delhi Municipal Corporation has 106 members including six aldermen.

An estimate of the party position including the six aldermen is as follows: Jan Sangh 54, Congress 42, Communists 2, Independents 6, S.S.P. 1, Republican 1.

Mayor, Hansraj Gupta.

Deputy Mayor, Balraj Khanna.

Officials

Commissioner, R. N. Chopra, I.A.S.

Deputy Commissioners, J. N. Singh; C. D. Bahri; S. M. Goel, B. N. Seth.

Gen. Manager, Electricity Undertaking, B. S. Manchanda, I.A.S.; General Manager, Delhi Transport Undertaking, Joginder Singh Sahani; Addl. Gen. Manager, L. S. Titus, I.A.S., Chief Engineer, Delhi Water Supply & Sewage Disposal Undertaking, Mali Nath Jain.

Secretary, R. P. Parti.

### **DELHI UNIVERSITY**

Delhi.

The University of Delhi is a teaching and affiliating University.

The University confers the following Degrees and Diplomas on students on passing the appropriate examinations:

Degrees: Ph.D. (Arts, Science, Law, Education, Medical Sciences and Social Sciences), M.A., M.Lib.Sc., M.Com., B.A. (Pass), B.Sc. (Hons.), B.Sc. (Pass), B.Com., M.Sc. (Home Science) in Rural Community Extension and Foods & Nutrition, M.Nursing, B.Sc. (Nursing) Hons., B.Sc. (Electrical, Mechanical & Civil) Engg., B.E. Tech., in Civil, Electrical & Mechanical Engg., B.Arch., M.Sc. in Civil Engg., M.B.,B.S., M.Sc. in Medical Biochemistry (for non-medical students), M.D. (Physiology, Pharmacology, Bacteriology, Medical Biochemistry, Pathology, Anaesthesia, Paediatrics, Medicine, Obstetrics and Gynaecology), M.S. (Anatomy, Surgery, Ophthalmology, E.N.T.R., Orthopaedics), DSc., D.C.L., D.Litt. M.Litt. (Buddhist Studies, Linguistics, Hindi, Urdu and Sociology), B. Library Science.

Diplomas: D.T.C.D., Anaesthesia, Child Health, Radiation Med., Otolaryngology, Dermatology, Venereology, Med. Radio Diagnosis, Med. Radio Therapy, Obstetrics & Gynaecology, Dip. in Lib. Sc., Dip. in Russian Language, Dip. in Hindi, Urdu, Punjabi, Modern Persian, Modern Arabic, Business Management & Industrial

Administration, Post M.A. Dip. in Linguistics, Dip. in Hindustani and Karnatak Music, Dip. in French, German and Italian, Dip. in Pali Language, Occupational Psychology and Swahili, advanced Dip. in French & German.

Certificates: Cert. of Proficiency in Russian language, Cert. in German, Italian, Spanish, Swahili, Hansa, Tamil, Telugu, Kannada, Malayalam, Marathi, Gujarati, Hindi. Urdu, Bengali, Cert. in Translation (English-Hindi). Post-Diploma Translation Cert. in Russian, Cert. in Office Supervision, Cert. in Paleography (Urdu).

Medium of instruction: English.

No of students (Aug. 1969): 56,029 (including 24,033 women); Income (1968-69): Rs. 306,87,978 · 82; Expenditure (1968-69): Rs. 300,82,472 · 46.

Chancellor, G. S. Pathak; Pro-Chancellor, M. Hidayatullah; Vice-Chancellor, Prof. K. N. Raj; Pro-Vice-Chancellor, Prof. Sarup Singh; Registrar, L. N. Welingkaar.

# JAWAHARLAL NEHRU UNIVERSITY New Delhi.

Visitor: V. V. Giri, President of India; Chancellor: Mrs. Indira Gandhi, Prime Minister of India; Vice-Chancellor: G. Parthasarathi.

The jurisdiction of the University extends to the whole of India. The University has also taken over the Institute of Russian Studies established earlier with the assistance of the U.S.S.R. The University proposes to create a few well-conceived schools each of which would consist of a group of centres, the focus in each centre being a major problem of study which would require an interdisciplinary approach and which would be of special significance to the country. Seven such schools are contemplated namely the School of Life Sciences, the School of Environmental Sciences, the School of Computer Sciences, the School of Special Sciences, the School of International Relations & Diplomacy, the School of Languages and the School of Creative Arts.

## ASSOCIATIONS, SOCIETIES, ETC.

AERONAUTICAL SOCIETY OF INDIA 13B, Indraprastha Estate, New Delhi-1.

AGRICULTURE MACHINERY DEALERS & MANUFACTURERS ASSOCIATION OF INDIA C-40, South Extn. II, New Delhi 16.

ALL INDIA AIR-CONDITIONING AND REFRIGERATION ASSOCIATION

Punj House, M. Block, Conn. Circus, New Delhi 1.

ALL-INDIA ANGLO-INDIAN ASSOCIATION Bombay Life Building, Connaught Circus, New Delhi 1.

ALL INDIA BLIND RELIEF SOCIETY 2F, Lajpatnagar, New Delhi 24.

ALL INDIA BOOKSELLERS AND PUBLISHERS
ASSOCIATION

7-L Connaught Circus, New Delhi 1.

ALL INDIA BOY SCOUTS ASSOCIATION (General Headquarters.)

7, Jangpura B Extension, Mathura Road, New Delhi 14.

ALL INDIA BRICK & TILE MANUFACTURERS'
FEDERATION

1-B/21, Jhandewalan Extn., New Delhi 1.

ALL INDIA CATTLE WELFARE SOCIETY Cement Kuti, 58, Rangpura, New Delhi 5.

ALL INDIA COUNCIL OF SPORTS C/o Ministry of Education, New Delhi-2.

ALL INDIA DISTILLERS ASSOCIATION H-37, Connaught Circus, New Delhi 1.

ALL INDIA FINE ARTS AND CRAFTS SOCIETY Old Mill Road (Rafi Marg), New Delhi.

ALL INDIA FINE CHEMICAL
IMPORTERS & DEALERS ASSOCIATION
Rasayan Bhavan, Dinanath Street, Roshanara Road,
Delhi 7.

ALL-INDIA GLASS MANUFACTURERS' FEDERATION

I. Block, Connaught Circus, New Delhi.

ALL INDIA HARIJAN SEVAK SANGH Kingsway, Delhi 9.

Objects: To eradicate untouchability by truthful and non-violent means; to serve Harijans so as to promote their moral, social and material welfare.

President: Viyogi Hari, Vice-President: Prof. N. R. Malkani, Secretary: Jiwanlal Jairamdas.

It conducts 115 hostels which include 29 for girls. Besides it conducts 3 Industrial Training Centres, 133 Co-operative societies and 160 'balwadis', 'sanskar kendras', 'Ashram Schools' and creehes which serve 9,409 students both Harijans and non-Harijans. During, 1967-68 it got opened 1,246 temples, 210 'dharamshalas', 1,315 drinking water wells and tanks, 590 barber shops, 1,691 hotels and restaurants for Harijans. Where there was opposition it reported the matter to the police and as such lodged 487 cases under Untouchability (Offences) Act with police and courts of law.

Besides, the institution has been striving hard for Bhangi Kasht Mukti with the ultimate goal of 'Bhangi Mukti'.

ALL INDIA INDUSTRIAL EDITORS' COUNCIL 4, Birbal Road, New Delhi 14.

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Ansari Nagar, New Delhi 16.

ALL INDIA MANAGEMENT ASSOCIATION 29, Nizam-ud-Din East, New Delhi 13.

ALL INDIA MANUFACTURERS' ORGANISATION 30, Ferozeshah Road, New Delhi 1.

ALL INDIA MOTOR UNIONS CONGRESS 16-A, Asaf Ali Road, New Delhi.

ALL-INDIA NEWSPAPER EDITORS' CONFERENCE 50, Theatre Communication Bldgs., Connaught Place, New Delhi 1.

ALL INDIA NEWSPAPER EMPLOYEES'
FEDERATION

Flat No. 29, New Central Market, Connaught Place, New Delhi.

ALL-INDIA ORGANISATION OF EMPLOYERS Federation House, New Delhi 1.

Main Object: To promote and protect the industrial development of India by studying various problems relating to trade, industry and labour and advising the Central and State Governments suitably.

Secretary-General: G. L. Bansal; Secretary: P. Chentsal Rao.

ALL-INDIA PEACE COUNCIL 6, Jamuna Bhavan, Asaf Ali Road, New Delhi 1.

ALL INDIA RADIO MERCHANTS' ASSOCIATION 21, Ansari Road, Daryaganj, Delhi 6.

ALL INDIA SAFETY GLASS TRADE ASSOCIATION 6511, Fatehpuri, Delhi 6.

ALL INDIA SHIPPERS COUNCIL Federation House, New Delhi 1.

(a) To provide for mutual consultations between shippers and shipowners/conference lines, port authorities, and Government on matters of common interest; (b) To bring together the representatives of various shippers' associations, trade and industrial associations/organisations, for consideration and discussion of the problems affecting shippers in India; (c) To represent the views of shippers in regard to the structure of freight rates, availability and adequacy of shipping space, frequency of sailings, port charges, port facilities, etc.; (d) To negotiate

and enter into agreements with conference lines/shipowners on matters affecting shippers which involve general principles and policies or on such other matters which any shippers' association has been unable to solve and are referred to the Council.

Chairman: Pravinchandra V. Gandhi; Deputy Chairman: A. Nagappa Chettiar; Secretary: H. L. Gupta.

ALL-INDIA TRADE UNION CONGRESS 24, Canning Lane, New Delhi 1.

ALL INDIA WOMEN'S CONFERENCE Sarojini House, 6, Bhagwandass Road, New Delhi 1.

Aims and Objects: To work for a society based on the principles of social justice, personal integrity and equal rights and opportunities for all. To secure recognition of the inherent right of every human being to work and to the essentials of life, such as food, clothing, housing, education, social amenities and security, in the belief that these should not be determined by accident or birth of sex but by planned social distribution. To support the claim of every citizen to the right to enjoy basic civil liberties.

President: Mrs. K. Raghuramaiah.

ASIAN INSTITUTE OF EDUCATIONAL PLANNING
AND ADMINISTRATION
Indraprastha Estate, New Delhi 1.

# ASSOCIATION FOR MORAL AND SOCIAL HYGIENE IN INDIA

4, Rouse Avenue, New Delhi.

Aims and Objects:—To eradicate prostitution and other evils in relation thereto. To establish, maintain and assist Protective Homes, and other Institutions for the shelter, training and rehabilitation of women and children in moral danger. To establish, maintain and assist Health Clinics for diagnosis, treatment and mass education for venereal diseases control.

To promote understanding and education in respect of sex relations, to raise the standard of character and to encourage healthy family relations.

To establish, maintain and assist Family Life Institutes, Student Counselling Centres and to undertake similar activities for the promotion of healthy family life.

Secretary General: Mrs. Shakuntla Lal.

ASSOCIATION OF VOLUNTARY AGENCIES FOR RURAL DEVELOPMENT A23, Kailash, New Delhi 48.

AUTOMOBILE ASSOCIATION OF UPPER INDIA Lilaram Bldgs., 14F, Connaught Place, New Delhi 1.

> BAR COUNCIL OF INDIA AB-21, Mathura Road, New Delhi 1.

> > BHARAT SADHU SAMAJ Chanakyapuri, New Delhi 11.

BHARAT SCOUTS AND GUIDES 113A, Daryaganj, Delhi 6.

BHARAT SEWAK SAMAJ

9-A, Theatre Communications Bldg., Connaught Circus, New Delhi 1.

A national social organisation, non-political and non-official in character, started in 1952 to mobilise people's

DELHI 403

support, co-operation and participation for the success of the national plans. The Samaj has a Youth Wing and a Construction Service.

BHARATIYA ADIMJATI SEVAK SANGH Dr. Ambedkar Road, Jhandewalan, New Delhi 5.

Aims and Objects: —To work for the development of the tribal communities in India socially, economically, culturally and educationally.

BHARATIYA NATYA SANGH 34, New Central Market, Connaught Circus, New Delhi 1.

It is devoted to the promotion of theatre-arts in the country.

BLOOD BANK ORGANISATION 4, Pusa Road, New Delhi 5.

CENTRAL FAMILY PLANNING INSTITUTE L-17, Green Park, New Delhi.

CENTRAL RADIO & ELECTRONICS MERCHANTS'
ASSOCIATION

Mangal Market, Radio Place, Chandni Chowk, Delhi 6.

CENTRE FOR INTERNATIONAL STUDIES (Massachusetts Institute of Technology) 161/48, Chanakyapuri, New Delhi 21.

CHILDREN'S FILM SOCIETY—INDIA Sapru House, New Delhi 1.

CO-OPERATIVE FOR AMERICAN RELIEF EVERYWHERE INC.

Post Box No. 3064, C127, Defence Colony, New Delhi 3.

DELHI CHAMBER OF COMMERCE
Dilbar Building, Paharganj, Desh Bandhu Gupta Road,
New Delhi 1.

President: H. C. Khosla. Vice-Presidents: P. N. Sharma (Sr.), Maj.-Gen. D. Misrichand. Hon. Secy.: Sirdar P. S. Sodbans.

DELHI CHEMICAL IMPORTERS & DEALERS'
ASSOCIATION

6479, K. Baryan, Fatehpuri, Delhi 6.

DELHI ELECTRICAL TRADERS'
ASSOCIATION

1548, Electrical Market, Behind State Bank, Chandni Chowk, Delhi 6.

DELHI FACTORY OWNERS' FEDERATION Phelps Bldg., 9-A, Connaught Place, New Delhi 1.

DELHI FENTS MERCANTILE ASSOCIATION 1090, Kucha Natwan, Chandni Chowk, Delhi 6.

DELHI GARMENTS CO-OP. INDUSTRIAL SOCIETIES LTD.

Karampura Road, Moti Nagar, New Delhi 15.

DELHI GLASSWARE MERCHANTS'
ASSOCIATION

C/o Imperial Glass Co., Fatehpuri, Delhi 6.

DELHI HINDUSTANI MERCANTILE ASSOCIATION 641/1213, Chandni Chowk, Delhi 6. DELHI IRON AND HARDWARE MERCHANTS
ASSOCIATION

Phatak Bansanwala, Bazar Sirkiwalan, Delhi 6.

DELHI MOTOR TRADERS' ASSOCIATION Post Box 1098, Kashmere Gate, Delhi 6.

DELHI PAINT MERCHANTS' ASSOCIATION
C/o Lalit & Co.
Fatehpuri, Delhi 6.

DELHI PAPER MERCHANTS' ASSOCIATION IX/65, Chawri Bazar, Delhi 6.

DELHI PLASTIC CABLE MANUFACTURERS'
ASSOCIATION

Amar Bhawan, Behind State Bank, Delhi 6.

DELHI PRINTERS' ASSOCIATION 26-A, New Central (Shankar) Market, New Delhi 1.

DELHI PRODUCTIVITY COUNCIL III/L-20, Lajpatnagar, New Delhi 24.

DELHI PUBLISHERS' ASSOCIATION 77, Chawri Bazar, Delhi 6.

> DELHI SILPI CHAKRA Flat No. 19, Shankar Market, New Delhi 1.

DELHI STATE CHEMISTS' ASSOCIATION Surgical & Medicine Market, Bhagirath Palace, Chandni Chowk, Delhi 6.

DELHI STATIONERY MANUFACTURERS'
ASSOCIATION

C/o Royal Khalsa Stationery Mart, Nai Sarak, Delhi 6.

DELHI WATCH TRADERS' SYNDICATE Post Box No. 1751, Delhi 6.

DENTAL COUNCIL OF INDIA Temple Lane, Kotla Road, New Delhi 1.

ENGINEERING ASSOCIATION OF INDIA
(Northern Regional Office)

A-6, N. D. South Extension, Part II, New Delhi-49.

ENTOMOLOGICAL SOCIETY OF INDIA Indian Agricultural Research Institute, New Delhi 12.

FAMILY PLANNING ASSOCIATION 15, Alipur Road, Delhi 6.

FEDERATION OF ALL INDIA AUTOMOBILE SPARE
PARTS DEALERS' ASSOCIATIONS
3620/21, Netaji Subhas Marg,
Delhi 6.

FEDERATION OF ALL INDIA FOOD GRAIN DEALERS' ASSOCIATIONS 3979, Naya Bazar, Delhi 6.

FEDERATION OF ASSOCIATION OF SMALL INDUSTRIES OF INDIA 23B/2, Rohtak Road, New Delhi 5.

FEDERATION OF BISCUIT MANUFACTURERS OF INDIA 17. Alipur Road, Delhi 6. FEDERATION OF HOTEL AND RESTAURANT ASSOCIATIONS OF INDIA

15-A, Nizamuddin West, New Delhi 13.

FEDERATION OF INDIAN EXPORT ORGANISATIONS

Allahabad Bank Bldg., 17, Parliament St., New Delhi 1.

FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY Federation House, Tansen Marg, New Delhi.

The Federation is recognised by the Central Government as the premier organisation representing commercial and industrial interests in the country.

The Federation has on its roll 201 Chambers of Commerce and Trade and Industrial Associations and 390 Associate Members, comprising leading business houses in the country. The Federation, through its constituents, covers almost the whole of the organized Indian industry and trade. It is represented on almost all important Consultative Bodies of Government. The Central Advisory Council of Industries, the Advisory Council on Trade, Capital Issues Advisory Committee, are some of the important Bodies on which the Federation is represented.

President: D. C. Kothari; Secretary-General: G. L. Bansal.

FEDERATION OF INDIAN MANUFACTURERS 6516, Qutab Road, New Delhi 55.

FEDERATION OF INDIAN MINERAL INDUSTRIES 7, N.D.S.E. Part I, New Delhi-49.

FEDERATION OF INDIAN PLYWOOD & PANEL INDUSTRIES

70, Golf Links, New Delhi 3.

FEDERATION OF PLYWOOD INDUSTRY 4E/13, Jhandewalan Extension, New Delhi 55.

FERTILISER ASSOCIATION OF INDIA 85, Sundar Nagar, New Delhi 11.

THE FORD FOUNDATION 55, Lodi Estate, New Delhi 3.

Assistance made available by the Foundation is in the form of grants for a broad range of India's development projects. All programmes receiving aid are closely related to India's Five Year Plans. Up to January 1, 1970, since 1951, the Foundation's technical and financial assistance to India's programmes has amounted to \$118 million. Programmes assisted have included those in rural development, intensive agricultural improvement, family planning, industrial training and development, management training, education, economic and social research, urban planning, and others.

GANDHI SMARAK NIDHI Rajghat, New Delhi 1.

GENERAL MACHINERY MERCHANTS'
ASSOCIATION

76, Shradhananda Marg, 1st Floor, Delhi 6.

HANDICRAFTS EXPORTERS' ASSOCIATION 32, Park Area, Karol Bagh, New Delhi 5.

THE HIMALAYAN SOCIETY Regal Hotel, Delhi.

Bombay Address: Shreeniwas House, Waudby Road, Fort, Bombay.

Training Camp: Badalu (Kumaon Hills).

INDIA INTERNATIONAL CENTRE
40, Lodi Estate, New Delhi 3,

INDIAN ACADEMY OF MEDICAL SCIENCES C-11/2, Ansari Nagar, New Delhi 16.

INDIAN ADULT EDUCATION ASSOCIATION 17-B, Indraprastha Marg, New Delhi 1.

INDIAN AND EASTERN NEWSPAPER SOCIETY I.E.N.S. Building, Rafi Marg, New Delhi 1.

INDIAN ASSOCIATION FOR AFRO-ASIAN SOLIDARITY

6, Jamuna Bhavan, Asaf Ali Road, New Delhi 1.

INDIAN BOARD FOR WILD LIFE

Ministry of Food & Agriculture, Department of Agriculture,
New Delhi.

INDIAN BUDDHIST SOCIETY
7, Ferozshah Road, New Delhi.
(Branch: 207, Ghorpadepeth, Poona 2).

INDIAN COOPERATIVE UNION LTD. 4, Rouse Avenue, New Delhi 1.

INDIAN COUNCIL FOR CHILD WELFARE 4, Rouse Avenue, New Delhi 1.

INDIAN COUNCIL FOR CULTURAL RELATIONS Azad Bhavan, Indraprastha Estate, New Delhi 1.

An autonomous organisation entirely financed by the Government of India, to promote cultural relations with other countries.

INDIAN COUNCIL OF MEDICAL RESEARCH Medical Enclave (Ansari Nagar), New Delhi-16.

Indian Council of Medical Research promotes Biomedical research in the country.

The Council has established a Research Cadre and a Supernumerary Research Cadre to attract workers interested in bio-medical research. A scheme for appointment of Emeritus Medical Scientists has been initiated to enable eminent retired scientists to pursue the research work in which they are specialised and to train younger workers.

The Council maintains the Nutrition Research Laboratories, Hyderabad, the Virus Research Centre, Poona, the Tuberculosis Chemotherapy Centre, Madras, the Cholera Research Centre, Calcutta, the Indian Registry of Pathology, New Delhi and an Occupational Health Institute at Ahmedabad. It has established a number of Units for important subjects. A Blood Group Reference Centre, a Reproductive Biology and a Contraceptive Testing Units have been set up in Bombay. Besides, a large number of ad hoc research schemes are sanctioned by the Council each year. In collaboration with the Central Council of Ayurvedic Research, the Council has set up a number of circuits for undertaking a comprehensive programme for research on indigenous drugs.

The Council also awards a number of research fellowships. It maintains a Library at Kasauli and has also set up a Microfilm and Photocopy Service Unit at Kasauli.

Director-General: Dr. P. N. Wahi.

INDIAN COUNCIL OF WORLD AFFAIRS Sapru House, Barakhamba Road New Delhi 1. MOOREA DELHI OTOTOG

INDIAN FARMERS FERTILISER CO-OPERATIVE UNION LTD.

F-1, South Extension II, New Delhi 49.

INDIAN FEDERATION OF UNIVERSITY WOMEN'S ASSOCIATIONS

Address: 6, Bhagwandass Road, New Delhi-1.

One of the chief aims of the Indian Federation is to promote friendship and understanding among the University women of different nationalities.

### INDIAN FEDERATION OF WORKING JOURNALISTS

Flat No. 29, New Central Market, Connaught Circus, New Delhi 1.

President: V. N. Bhushan Rao; Secretary-General: S. B. Kolpe. Treasurer: P. K. Ravindranath.

INDIAN INSTITUTE OF FOREIGN TRADE 41-A, Friends Colony, Mathura Road, New Delhi 14.

INDIAN INSTITUTE OF MASS COMMUNICATION 2, Ring Road, Kilokri, New Delhi 14.

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION

Indraprastha Estate, Ring Road, New Delhi 1.

INDIAN INVESTMENT CENTRE
National Insurance Bldg., Parliament Street,
New Delhi 1.

Objects: To stimulate the flow of foreign private capital, technological skills and know-how into India. With this end in view, the Centre undertakes (a) to promote among the capital exporting countries a wider knowledge and understanding of the Indian economy, Government's economic policies and the 'investment climate' of the country, (b) to assist Indian entrepreneurs in their efforts to set up joint ventures, and (c) to help foreign industrial entrepreneurs in concluding collaboration agreements and in securing government approvals.

The Centre has its branch offices in New York at 708, Third Avenue, New York, N.Y. 10017 U.S.A., in Dusseldorf at Karlstrasse 76, Dusseldorf-4, Federal Republic of Germany and in London at India House, Aldwych, London, W.C. 2 (U.K.).

Chairman: G. L. Mehta; Executive Director: R. V. Raman.

INDIAN LAW INSTITUTE
Bhagwandass Road, New Delhi 1.

INDIAN MATHEMATICAL SOCIETY Hans Raj College, Delhi-7.

INDIAN MEDICAL ASSOCIATION
I.M.A. House, Indraprastha Marg, New Delhi 1.

INDIAN NATIONAL TRADE UNION CONGRESS 17, Janpath, New Delhi 1.

INDIAN NURSING COUNCIL Kotla Road, Temple Lane, New Delhi 1.

INDIAN RED CROSS SOCIETY 1, Red Cross Road, New Delhi 1.

INDIAN ROAD CONGRESS

Jamnagar House, Mansingh Road, New Delhi 11.

INDIAN SCHOOL OF INTERNATIONAL STUDIES

405

35, Ferozeshah Road, New Delhi.

INDIAN SOCIAL INSTITUTE
N. D. South Extension II, D-25-D, New Delhi 49.

Director: Anthony A. D'Souza.

Purpose: Research publications; labour welfare and management courses; training in co-operation; promotion and organisation of socio-economic projects; family life education. Publications: Social Action (Quarterly).

# INDIAN SOCIETY OF GENETICS & PLANT BREEDING

Genetics Dn., Indian Agricultural Research Institute, New Delhi 12.

INDIAN SOCIETY OF GASTROENTEROLOGY D/3, Ansari Nagar, New Delhi 16.

INDIAN SOCIETY OF SOIL SCIENCE Indian Agricultural Research Institute, Delhi 12.

INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi 1.

Director-General: Dr. A. N. Ghosh.

Aims and objects: Preparation of standards, on national and international basis, relating to structures, commodities, materials, practices, operations, promotion of standardization, quality control and simplification in industry and commerce, etc. The Institution also operates, under an Act of Parliament, ISI Certification Marks Scheme under which manufactured items are certified and marked with ISI Mark of Certification as a third party guarantee to the purchaser that the goods bearing the mark have been produced according to the provisions of the relevant Indian standards. For assisting Indian industries in organizing their in-plant standards activity, the Institution conducts training and survey programmes. The Institution also imparts training in industrial standardization to scientists and technologists from abroad. For promotion of international trade, the Institution collaborates actively with the international organizations dealing with standardization.

INDO-GERMAN CHAMBER OF COMMERCE
"E" Block, Sixth Radial Road, Connaught Place, New
Delhi.

INSTITUTE FOR SOCIAL GUIDANCE 2-F, Lajpatnagar, New Delhi 24.

INSTITUTE OF APPLIED MAN-POWER RESEARCH Indraprastha Estate, Ring Road, New Delhi-1.

Main objects: To advance knowledge about the nature, characteristics and utilisation of human resources in India; to provide a broad perspective of requirements of trained man-power for economic development in different fields with due regard to the probable impact of technological changes on the pattern of employment; and to develop improved methods and techniques for the training and development of the existing work force; educational preparation for employment; vocational guidance; identification and development of highly talented persons and forecasting demand and supply of man-power and connected matters.

Director: Dr. K. N. Butani.

# INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

Post Box 268, Indraprastha Marg, New Delhi 1.

President: H. B. Dhondy; Vice-President: M. C.
Bhandari; Secretary to the Council: C. Balakrishnan.

INSTITUTE OF CONSTITUTION AND PARLIAMENTARY STUDIES 18, Vithalbhai Patel Marg, Rafi Marg, New Delhi.

INSTITUTE OF ECONOMIC GROWTH University Enclave, Delhi 7.

INSTITUTE OF FOREIGN LANGUAGES 1/3 NDS, Lajpatnagar, New Delhi 24.

INSTITUTE OF HISTORY OF MEDICINE & MEDICAL RESEARCH 2/3A, Asaf Ali Road, New Delhi 1.

INSTITUTE OF HOTEL MANAGEMENT, CATERING & NUTRITION Pusa Institute, New Delhi 12.

> INSTITUTE OF INDOLOGY 24E, Netaji Subhas Marg, Delhi 6.

INSTITUTE OF MARKETING & MANAGEMENT 62F, S. S. Park, New Delhi 3.

INSTITUTE OF NUCLEAR MEDICINE AND ALLIED SCIENCES

(Research & Development Organisation) (Min. of Defence) Probyn Road, Delhi 7.

Diseases like hyper-thyroidism, heart ailments, Parkinsonism, leukaemia and polycythemia are treated by radiomedicines. Radiotracers are used for investigations of blood diseases, liver diseases, electrolyte disturbances and thyroid function. The Institute has a well organised Health Physics Department oriented to Radiation Protection, an Animal House and Technical Workshop.

# INSTITUTE OF OFFICE MANAGEMENT, INDIA N-34, Jangpura Extension, New Delhi-14.

Aims and objects: (1) The Institute has liaison with Administrative Management Society of U.S.A., Systems & Procedures Association of U.S.A. and Institute of Office Management of U.K. (2) It disseminates knowledge about modern techniques of Office Management to its members. (3) It renders assistance to its members in designing forms for internal use and in the case of industrial associations, it will design forms prescribed by State Government and Central Government for submission to them in a manner which is least expensive to the industry and most useful to the Government. (4) It conducts Diploma examination in Office Management in collaboration with the U.K. Institute twice a year. (5) It publishes a two monthly journal to inform its members of the improvements and developments in office procedures. (6) A Certificate Course in Office Supervision for graduate women is also conducted in collaboration with the Universities of Delhi and Punjab. President: K. Hartley; Hon. Secy.: Ramesh C. Bansal.

INSTITUTE OF PSYCHIC & SPIRITUAL RESEARCH 22, Sardar Patel Marg, New Delhi 11.

INSTITUTE OF RUSSIAN STUDIES I.I.T., House Khas, New Delhi 29.

INSTITUTE OF TOWN PLANNERS INDIA Indraprastha Estate, Ring Road, New Delhi 1.

INSTITUTION OF ENGINEERS (INDIA)
(Delhi Centre)

Bahadur Shah Zaffar Marg, Near Tilak Bridge, New Delhi 1.

INSTITUTION OF TELECOMMUNICATION ENGINEERS

72, Ring Road, Lajpatnagar, New Delhi 24.

INSTITUTION OF WORK STUDY (INDIA) Kashmir House, New Delhi 11.

INTERNATIONAL ACADEMY OF INDIAN CULTURE J-22, Hauzkhas Enclave, New Delhi 16.

INTERNATIONAL CHAMBER OF COMMERCE, INDIAN NATIONAL COMMITTEE Federation House, New Delhi 1.

Objects: (i) To facilitate the commercial intercourse of countries; (ii) To encourage progress and to promote peace and cordial relations among countries and their citizens by the cooperation of business men and organisations devoted to the development of commerce and industry.

President: Pravinchandra V. Gandhi; V. President: Babubhai M. Chinai; Secretary-General: G. I. Bansal; Secretary: P. Chentsal Rao.

INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS—ASIAN REGIONAL ORGANISA-TION (ICFTU-ARO)

P-20, Green Park Extn., New Delhi 16.

Asian organization of free democratic trade unions, independent of all external domination and promoting interests of working people and assuring dignity of labour in Asia, affiliating twenty trade union organizations from fourteen Asian countries with more than fourteen million members.

President: P. P. Narayanan; Regional Secy.: V. S. Mathur.

# INTERNATIONAL CULTURAL CENTRE 16, Hailey Road, New Delhi 1.

Its main objective is to help understanding and appreciation of the world's art forms and movements through cultural exchange and thus enrich and influence the development of the arts in India itself.

INTERNATIONAL SOCIETY OF PLANT MORPHOLOGISTS

Dept. of Botany, Univ. of Delhi, Delhi 6.

IRON HARDWARE MERCHANTS' & MANUFACTURERS' ASSOCIATION
Bazar Sirkiwalan, Delhi 6.

JAMIA RURAL INSTITUTE Jamia Millia, New Delhi 25.

LALIT KALA AKADEMI
(National Academy of Art, Rabindra Bhavan,
New Delhi 1).

Its aim is to promote painting, sculpture, architecture and applied arts.

MAX MUELLER BHAVAN
The Indo-German Cultural Centre
3-Curzon Road, New Delhi 1.

MEDICAL COUNCIL OF INDIA Temple Lane, Kotla Road, New Delhi.

Its main functions are (a) maintenance of uniform minimum standard of medical education, both undergraduate and post-graduate, and prescribing standards; (b) reciprocity in the matter of mutual recognition of medical

DELHI 407

qualifications with other countries; and (c) maintenance of Indian Medical Register.

President: Dr. S. C. Sheth; Vice-President: Dr. Tulsi Das; Secretary: Dr. U. B. Krishnan.

MOTION PICTURES ASSOCIATION 52/55, Mangal Market, Chandni Chowk, Delhi 6.

NATIONAL AGRICULTURAL CO-OPERATIVE MARKETING FEDERATION LTD. D44, NDSE Part II, New Delhi 49.

NATIONAL BOOK TRUST, INDIA 23, Nizamuddin East, New Delhi 13.

An autonomous body set up by the Govt. of India in the Ministry of Education for creating a movement in the country to make the people more and more bookminded.

Activities: Organisation of exhibitions and book fairs, arranging seminars and workshops on problems connected with the writing, translation, publication and distribution of books.

The Trust produces and encourages the production of good literature and tries to make such literature available at a moderate price to the public.

# NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

Parisila Bhawan, 11, Indraprasta Estate, New Delhi 1.

An independent research organisation to study important economic problems on an objective basis on its own initiative or at the instance of Government, business concerns, associations or individuals and to help in analysing and finding solutions to specific problems in the planning and management of industrial and other undertakings.

The Studies cover: Area surveys, Taxation and Finance, Industry, Agriculture, Demand Forecasts, Energy, Transport, Saving & Consumption, Planning and General Studies.

Director-General: S. Bhoothalingam.

# NATIONAL CULTURAL ORGANISATION A-20/43, Lodi Road, New Delhi-3.

An all-India cultural body for the promotion of Indian Culture by organising cultural festivals etc.

Chairman: Dr. Harekrushna Mahtab; Hony. General Secretary: N. P. Seshadri.

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING 5, West Patel Nagar, Patel Road, New Delhi 12.

## NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LIMITED

L-8, S. Extn. Part II, New Delhi 49.

President: P. S. Rajagopal Naidu; Vice-President: Dr. D. K. Patel; Secretary: Gyan Chandra.

# NATIONAL INSTITUTE OF SCIENCES OF INDIA Bahadur Shah Zafar Marg, New Delhi 1.

Objects: Promotion of science and scientific knowledge in India and harnessing them for the cause of humanity and national welfare. To act as a body of scientists

of eminence, and a co-ordinating body between scientific societies in India, institutions etc. To publish *Proceedings*, Bulletins, Monographs, Biographical Memoirs of Fellows, Indian Journal of History of Science, Yearbook etc.

President: Dr. Atma Ram; Vice-Presidents: Dr. R. K. Asundi, Dr. K. Ramiah; Treasurer: Prof. S. Rangaswami; Foreign Secretary: Prof. A. G. Jhingran; Secretaries: Dr. B. D. Nagchaudhuri, Dr. M. S. Swaminathan; Editor of Publications: Prof. B. R. Seshachar; Executive Secretary: Dr. S. Mull.

# NATIONAL PRODUCTIVITY COUNCIL 38, Golf Links, New Delhi 3.

An autonomous organisation to help increase productivity in every sector of the national economy. It is organised on the ILO tripartite pattern representing Government, employers, and workers. It also gives representation on its Council to various educational and professional institutions interested in productivity and the Local Productivity Councils, established practically all over the country.

NPC has six Regional Directorates (Bangalore, Bombay, Calcutta, Kanpur, Ludhiana and Madras) covering all the principal industrial areas of the country. Over 60 NPC specialists are located at these regional centres and the headquarters and their services are available to Local Productivity Councils, professional and educational institutions, industrial, business, administrative and public utility establishments.

Executive Director: B. N. Bhattasali.

# NATIONAL SCHOOL OF DRAMA & ASIAN THEATRE INSTITUTE

Rabindra Bhavan, Ferozeshah Road, New Delhi 1.

NEHRU MUSEUM & LIBRARY Teen Murti Marg, New Delhi 1.

NEW DELHI TRADERS' ASSOCIATION 21-B, Connaught Place, New Delhi 1.

NON-FERROUS FITTING MFRS. ASSOCIATION OF INDIA

A-6, N. D. South Extension, Part II, New Delhi-49.

NORTHERN INDIA COTTON MILLS ASSOCIATION
Phelps Building, 2nd Floor,
9A, Connaught Place, New Delhi 1.

# NORTHERN INDIA REFRIGERATION & AIR CONDITIONING TRADES ASSOCIATION

C/o National Refrigeration Works, 8, Netaji Subhash Marg, Daryaganj, Delhi-6.

PHARMACY COUNCIL OF INDIA
2nd Floor, Combined Councils' Building, Temple Lane,
Kotla Road, New Delhi.

PRESS INSTITUTE OF INDIA Barakhamba Road, New Delhi 1.

# PUNJAB, HARYANA AND DELHI CHAMBER OF COMMERCE & INDUSTRY

(Phelps Bldg., 9-A, Connaught Place, New Delhi 1.)

Chairman: M. N. Seth; Dy. Chairman: Bhai Mohan
Singh; Secretary: M. L. Nandrajog.

PUNJAB MERCHANTS' CHAMBER (Regd.) 45, Khurshid Market, Sadar Bazar, Delhi. RAJDHANI CYCLE BEOPAR MANDAL 6, Esplanade Road, Delhi 6.

RAMAKRISHNA MISSION Ramakrishna Ashrama Marg, New Delhi 1.

THE ROCKFELLER FOUNDATION 17, Kautilya Marg, Chanakyapuri, New Delhi 21.

Since its inception in 1920 valuable assistance has been provided by the Foundation to several institutions in such fields as medical education, public health, agriculture, humanities and social sciences. The total amount of grants including fellowships and travel grants made by the Foundation upto Sept. 30, 1969 was reported to be \$20,121,876.

Officer-in-Charge & Field Director, Indian Agricultural Programme: Dr. Guy B. Baird.

ROLLER FLOUR MILLERS' FEDERATION OF INDIA

438, Mathura Road, Jangpura, New Delhi 14.

SAHITYA AKADEMI (NATIONAL ACADEMY OF LETTERS)

Rabindra Bhavan, New Delhi.

Aim: To work for the development and co-ordination of Indian letters, and to set high literary standards.

Concrete projects: A bibliography of Indian literature, critical edition of Kalidasa's works, selections from Sanskrit and Pali literature, annual anthologies of best Indian poems, publications of standard histories of Indian literatures, anthologies covering poetry, one-act plays, essays and short stories in Indian languages, translation of select classics from one Indian language into others, translation of foreign classics into Indian languages, a series of short volumes on significant Indian authors, etc.

The Akademi has already published a Who's Who of Indian writers containing bibliographical and biographical data about 5,500 writers in major Indian languages.

The Akademi awards Prizes for outstanding literary works in 17 Indian languages, including English.

The Akademi publishes a quarterly journal Indian Literature (in English) and a six-monthly Samskrita Pratibha (in Sanskrit), besides a Monthly News Bulletin in English.

President: D. S. K. Chatterji; Vice-Pres.: Dr. K. R. Srinivas Iyengar.

SANGEET NATAK AKADEMI (Estd. 1953)

(National Academy of Dance, Drama & Music) Rabindra Bhavan, Ferozeshah Road, New Delhi 1.

The Akademi gives grants to various performing arts organisations, promotes research, sets up training institutions, organises seminars, festivals and subsidizes the publications on music, dance and drama.

Programme: The Akademi has a comprehensive programme of documentation of the folk performing arts through films, tapes and photographs. It has built up a library of tape music, both classical and folk. It maintains a museum of musical instruments and a sound recording studio. It sponsors rare forms and specialized artists in music, dance and drama. It publishes a quarterly Journal—SANGEET NATAK, and a Bi-monthly News Bulletin.

It runs National School of Drama with a 3-year broadbased training course in dramatics. It also runs — Jawaharlal Nehru Manipur Dance Academy — for the training in Manipuri Dance at Imphal and — Kathak Kendra — for training in Kathak dance in Delhi.

Chairman: Smt. Indira Gandhi; Secretary: Dr. Suresh Awasthi.

# SANT NIRANKARI MANDAL (Regd.) Sant Nirankari Colony, Delhi 9.

Aims and Objects: To promote the feelings of Universal Brotherhood and equality amongst all human beings without caste, creed and colour through realisation of God and to develop equal respect for all the prophets and their holy scripts.

SANT PARMANAND BLIND RELIEF MISSION 18, Alipore Road, Delhi 6.

Object: Eradication of blindness in India.

SERVANTS OF THE PEOPLE SOCIETY (Lok Sevak Mandal)

Lajpat Bhawan, Lajpat Nagar, New Delhi 24.

SHRI RAM INSTITUTE FOR INDUSTRIAL RESEARCH

19, University Road, Civil Lines, Delhi 7.

Objects: To assist national industrial growth through research for the textile, high polymer and chemical industries, and also offer testing facilities through its Department known as "Shriram Test House" to industry and trade.

Director: Dr. V. B. Chipalkatti.

SOCIETY OF INCORPORATED ACCOUNTANTS AND AUDITORS OF INDIA

Daryaganj, Delhi 6.

SPORTS GOODS EXPORT PROMOTION COUNCIL 1E/6, Jhandewalan Extn., New Delhi 55.

ST. JOHN AMBULANCE ASSOCIATION (INDIA) AND ST. JOHN AMBULANCE BRIGADE (INDIA)

1, Red Cross Road, New Delhi 1.

Objects: Instruction in First Aid, Home Nursing and allied subjects and relief of suffering of the sick and injured in peace and war.

Commissioner-in-Chief: Dr. Gurbax Singh; Secretary: General: Maj-Gen. S. S. Maitra.

TABLE TENNIS FEDERATION OF INDIA National Stadium, New Delhi 1.

TRAINED NURSES' ASSOCIATION OF INDIA L-16, Green Park, New Delhi 16.

TUBERCULOSIS ASSOCIATION OF INDIA Office:—3, Red Cross Road, New Delhi 1.

Twenty-one State Tuberculosis Associations are affiliated to this Association. It runs model T.B. institutions, namely, the Lady Linlithgow Sanatorium, Kasauli (Simla Hills); the New Delhi Tuberculosis Centre, New Delhi and Lala Ram Sarup Tuberculosis Hospital, Mehrauli (Delhi).

Secretary-General : B. M. Cariappa.

UNITED CHAMBER OF TRADE ASSOCIATIONS
Nai Sarak (Katra Rathi), Delhi.

UNITED STATES EDUCATIONAL FOUNDATION IN INDIA
12, Hailey Road, New Delhi 1.

VALLABHBHAI PATEL CHEST INSTITUTE Univ. of Delhi, Patel Marg, Delhi 7.

YOGA INSTITUTE OF PHYCHO-PHYSICAL THERAPY

2F, Lajpatnagar, New Delhi 24.

YOUNG FARMERS' ASSOCIATION, INDIA AI, Nizamuddin West, New Delhi 13. YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF INDIA

Parliament Street, New Delhi 1.

Rural welfare work, adult education classes, vocational training, Employment Bureaus and Nursery Schools form part of its regular programme. Training of Youth to Citizenship is a major emphasis—carried out through Camps, Conferences, Seminars and Summer Schools.

YOUTH HOSTELS ASSOCIATION OF INDIA No. 2, East Park Road, Karol Bagh, New Delhi 5.

# ADMINISTRATIVE PERSONNEL

# Lt. Governor

Chief Executive Councillor. Vijay Kumar Malhotra; Financial Commissioner, Mahabir Singh; Chief Secretary, S. C. Varma, I.A.S.; Development Commissioner, M. D. Tyagi; Judicial Secretary, Desh Dipak; Finance Secretray, K. K. Mathur; Deputy Commissioner, G. K. Arora, I.A.S.; Inspector-General of Police, S. Bihist; Director of Education, Virendra Prakash; Director of Public Relations, Gurbaksh Rai; Director of Industries, L. N. Saklani; Labour Commissioner, V. P. Channa; Director of Training & Employment, A. J. Kundan; Sales Tax Commissioner, B. K. Sharma, District and Session Judge, M. L. Jain.

### HIGH COURT, DELHI

Chief Justice, Hans Raj Khanna; Judges, Hardayal Hardy, S. N. Andley, T. V. R. Tatachari, Jagjit Singh,

S. N. Shankar, Om Prakash, V. S. Deshpande, P. N. Khanna, S. Rangarajan, Prakash Narayan, P. S. Safeer, M. R. A. Ansari, V. D. Misra, B. C. Misra, Rajindar Sachar, Prithvi Raj; Secretary, Guru Datta.

# Northern Railway

Baroda House, New Delhi.

General Manager, M. N. Bery; Sr. Deputy General Manager, D. B. Vohra; Chief Operating Supdt., V. P. Sawhney; Chief Commercial Supdt., T. S. Parthasarathy; Chief Engineer, Vacant; Chief Engineer (Const.), D. S. Tomar; F.A. & C.A.O., K. P. Taimni; Chief Mechanical Engineer, V. S. Chopra; Chief Signal & Tele.-Comm. Engineers, P. C. Bhattacharya, R. K. Dandekar (Const.); Chief Personnel Officer, A. B. Lal; Chief Electrical Engineer, R. L. Mitra; Chief Security Officer, T. Albert Manoraj; Chief Public Relations Officer, O. P. Chopra, Chief Medical Officer, Dr. S. S. L. Verma.

# GOA, DAMAN AND DIU

CAPITAL: Panaji; Area: 1,431 sq. miles (Goa 1,394 sq. miles; Daman 22 sq. miles; Diu 15 sq. miles). Pop.: 6,26,667 (1961 Census).

The Hindu population is estimated at 3,84,378; Catholics 2,27,202; Muslims 14,600.

All the three territories are situated practically within the areas covered by Mysore, Maharashtra and Gujarat States. Goa is on the Konkan Coast; Daman lies on the Gujarat coast at the entrance to the Gulf of Cambay; and Diu is a tiny islet and along with the isolated spots, Gogola and Simbor, lies on the southern fringe of the Kathiawar peninsula.

The Goa region constitutes one district under the charge of a Collector, with headquarters in Panaji. The district is divided into two sub-divisions, namely, the north sub-division comprising Goa, Pernem, Bardez, Bicholim and Satari and the south sub-division comprising Ponda, Sanguem, Quepem, Salcete, Mormugao and Canacona. The Daman region is also under the charge of a Collector while Diu is in charge of an Administrator.

Important towns: Panaji (Capital: Pop. 35,468); Margao (Principal business centre: Pop. 15,364); Mapuca (Pop. 8,198); Vasco da Gama (Pop. 6,483).

Other towns: Ponda, Pernem, Canacona, Quepem.

Rivers: Mandovi, Zuari, Tiracol, Chapora, Baga, Talpona, Sal and Galgibaga.

Ferries: Panaji—Betim (over Mandovi); Agacaim—Cortalim (over Zuari); Panaji—Aldona (over Mandovi); Dona Paula—Mormugao (over Zuari).

### HISTORIC AND RELIGIOUS PLACES

In Old Goa, about eleven Kms. from Panaji, there are several convents, the most important among them being the Basilica of Bom Jesus, popularly known as the Church of St. Francis Xavier. The body of Goa's patron saint, St. Francis Xavier is kept there. Not far from this Church are the Cathedral Sé Convent built between 1562 and 1619, the Convent of St. Francis Assisi the Church of which was consecrated in 1603. At Pilar, five miles from Panaji, is located the noted Pilar Seminary. The exposition of the Body of St. Francis Xavier was held at Bom Jesus Basilica in December 1964.

Goa is well known for its famous Hindu temples. The temple Saptakoteshwar, the family deity of the ancient Kadamba rulers of Gomantaka is situated at Naria (Bicholim). Noted among the temples from Ponda taluka are, Mangesh at Priol, Shanta Durga at Queula, Mahalakshmi and Naguesh at Bandora, Mahalsa at Mardol and Gopal Ganapati at Farmagudi.

### HISTORIC DATES

These are given in the 1968 edition of the Directory.

#### INDUSTRIAL DEVELOPMENT

Since liberation about 450 Small-Scale Units manufacturing consumer and capital goods have been registered with the Department of Industries. In order to encourage prospective entrepreneurs who established Small-Scale Units many incentives like power subsidy, managerial subsidy, matching share capital to Industrial Co-operatives, loans on easy terms etc. are provided.

In order to overcome the difficulty of land and readymade factory sheds, one Industrial Estate at Corlim near Panaji has been established. Sheds in this Industrial Estate are given to industrialists for setting up small-scale industries on rent at reasonable rate. One more Industrial Estate at S. Jose de Areal near Margao is being set up and about 15 sheds are constructed and will be allotted to intending industrialists shortly. The development of Industrial Estates and areas are being looked after by the Goa, Daman and Diu Industrial Development Corporation set up in the year 1966.

In the large scale sector, 13 major projects have been licensed. These include textile mills, pig iron plants, pelletization plants, fertilizer project, brewery project etc. Total investment contemplated in these projects will be around Rs. 87.52 crores and will provide employment to about 6,000 people.

### BANKS

State Bank of India has, since liberation, opened eight branches in Goa in the prominent cities like Panaji, Vasco, Margao and Mapusa. Some of them are located in the interior towns.

Other national Scheduled Banks have opened their branches all over Goa. Goa State Co-operative Bank also has opened five branches and five sub-branches in the Union Territory of Goa, Daman and Diu with its head office functioning at Panaji. Besides, several local Urban Banks are also operating in places like Mapusa and Panaji.

The Life Insurance Corporation of India operates in the Territory.

### **AGRICULTURE**

Net area sown in Goa, Daman and Diu is 68,628, 3,636 and 362 hectares respectively. The food crops that are commonly grown include rice, nachini, and pulses. Vegetables of all types are grown as rainfed crop in Khariff and as irrigated crop in Rabi season. The main commercial fruit crops grown in Goa are coconut, cashewnut, betelnut (areca-nut) and mango. The other common fruits available in this Territory are pineapple, jackfruit, breadfruit, various types of citrus, papaya and bananas.

Mangoes and pineapples are canned in Goa and exported to the other parts of the country and also abroad. Pineapples are mostly utilised for canning industry.

In Goa paddy is the predominant crop and occupies about 13 per cent of the cultivable area. The annual normal production of rice is about 50,000 to 60,000 M. tons and the consumption is estimated to be about 75,000 to 80,000 M. tons. In order to meet the deficit of 20,000 M. tons of rice, the Department of Agriculture introduced in 1966 for the first time high yielding varieties of paddy.

The area covered and the yield obtained are as under :-

Season/Year	Taichung	Additional yield obtained	
Khariff 1966	3,160 acres	2,000 M. tons	
Waingan 1966-67	2,863 acres	3,000 M. tons	
Khariff 1967	7,623 acres	10,000 M. tons	
Waingan 1967-68	11,775 acres	11,000 M. tons	
Khariff 1968	14,275 acres	14,000 M. tons	
Waingan 1968-69	10,061 acres	12,000 M. tons	

The IR-8 variety has been found more suitable for this tract than Taichung and is particularly recommended for the khariff season. The new release of "Padma" has just been tried on a small-scale in the farmers' fields and is also found useful due to its earliness. In Daman also paddy is grown mainly during Khariff season. Taichung was introduced there in Khariff 1966 in an area of 60 acres. During Khariff 1967 about 550 acres were brought under cultivation. In Diu no paddy is grown while bajra occupied about 1,000 acres out of 1,300 acres of cultivable area. In Rabi season, wheat crop is grown in Daman (500 acres) and Diu (100 acres).

Ragi (Nachini) is grown in the hilly areas of Goa, in an area of about 5,000 acres. Maize (hybrid) occupies about 250 acres, while groundnut, legumes and pulses together cover about 1,000 acres.

There is wide scope for sugarcane development in Goa. This crop was grown on about 600 acres of land in 1967-68, while the present area under the same is about 1,600, and it is proposed to bring an additional area of 1,000 during the planting season of 1969-70 under new variety Co. 740. Due to this, jaggery production will go up from 70,000 lumps of jaggery to 1,40,000.

Tapioca is a subsidiary crop which is being popularised, especially in the coconut gardens. Sets of the improved variety Malayan-4 are being made available to the farmers by the Department of Agriculture.

Green manure crops such as Dhaincha and Gliricidia are widely used for manuring coconut trees.

Comunidades: A large part of the cultivable lands belongs to village communities, popularly known as comunidades which are a type of agricultural co-operatives. There are a number of such communities in each of the 11 administrative divisions—31 in Ilhas, 40 in Salcete, 39 in Bardez, 14 in Mormugao, 28 in Ponda, 21 in Bicholim, 24 in Quepem, 12 in Pernem, 7 in Sanguem, 2 in Satari and 7 in Canacona. The Land Reforms Commission has suggested in its report that their administration be turned over to Block Development officers.

## MINERAL ORES

Goa has vast mineral wealth. Export of iron ore, low grade manganese ore and bauxite is the backbone of Goa's economy and has been a valuable foreign exchange earner. Goa has been contributing nearly 50 per cent to the total exports of iron ore from India.

The main operational centres are Bicholim, Kudnem, Pali, Pailigao and Sirigao for iron ore, Sanguem Taluka for manganese ore and Quepem Taluka for bauxite. The usual percentage of iron content varies from about 57 to 62 per cent in the case of iron ore and 60 to 65 per cent in the case of iron ore fines and blue dust.

The manganese ore deposits found in Goa are Pyrolusite and Psilomelanc. Most of these deposits occur in pocket formation.

Production during 1968 (metric tons): Iron 68,56,480; low grade manganese 51,414; bauxite 14,806.

The export of iron ore during 1968 was of the order of 7.6 million metric tons. The export of low grade manganese ore was about one lakh metric tons. The export of bauxite was not started during 1968.

Mormugao Harbour one of the major natural harbours in the country, is the main outlet for the ore. Plans are under way for extensive dredging of the harbour in order to accommodate bigger ships. The installation of a high capacity ore handling plant is also under the said plan. With this modernisation, the bigger ships will be loaded at a much higher rate.

# COTTAGE AND SMALL-SCALE INDUSTRIES

Some of the Small-scale industries in Goa are: ornamented wood works (Cuncolim), cashewnut peeling-packing factory (Bicholim), umbrella factories (Piedade

and Margao), soap factories (Bicholim and Mapuca), handloom factory (Aldona), candle factory (Margao) and pottery works (Bicholim). A Small Industries Service Institute has been set up in Margao and Department of Industries has been attached to the Secretariat in Panaji for promoting projects for rapid industrialisation of the Territory.

A Handicraft Emporium has also been opened in Tourist Hostel, Panaji, where various handicraft articles are

displayed for sale.

A capital outlay of Rs. 20 lakhs has been sanctioned for the rural development projects.

### **EDUCATION**

Four Arts and Science Colleges, one Commerce College and one Secondary Teachers' Training College in Goa have been started by private societies since liberation, Govt. has also set up 1 Arts and Science College at Daman, since June 1966. A Polytechnic leading to diploma courses in civil, mechanical and electrical engineering has started functioning since June 1963. Also an engineering college providing facilities for degree courses in civil, mechanical and electrical engineering has started functioning since June 1967. The old Goa Medical School was upgraded into a Medical College providing facilities for M.B.B.S. course since June 1963. The School of Pharmacy was also upgraded into a Pharmacy College leading to the degree of B. Pharm. since July 1963.

Two Primary Teachers' Training Colleges are functioning in the Territory. One Foodcraft Centre has also started functioning at Alto de Porvorim, Bardez taluka.

Free and compulsory education has been introduced upto Standard IV in primary schools. Education is also made free in this Territory upto Standard VIII.

There were 861 Govt. and 65 non-Govt. Primary Schools, with a total enrolment of 94,429 students (Stds. I to IV) during the year 1968-69.

The number of middle schools during 1968-69 was 225 which includes 38 non-Govt. middle schools. The total enrolment in all these middle schools was 37,428 students in Standards V to VII (including middle sections attached to high schools).

In the field of secondary education the Grant-in-aid Code has been introduced as per the pattern followed in Maharashtra State. There were 169 schools catering to the needs of high school education during the year 1968-69 with a total enrolment of 22,871 students from Standards VIII to XI.

## TRANSPORT AND COMMUNICATIONS

There is a direct train service between Vasco da Gama and Poona.

Mormugao, the chief port described as the "Gateway of Goa", is one of the major harbours on the west coast of India. It permits ocean-going vessels of various sizes from all parts of the world, but ships mainly from Japan, America and Europe call at the port to take cargo of iron and manganese ore. Coastal steamer services operate between Bombay and Panaji and Bombay and Mormugao.

Road transport services between Panaji and Belgaum via Anmod, to and from Sawantwadi via Doddamarg and between Betim and Poona and between Hubli and Panaji have also been introduced. Additional bus services introduced between Goa, Maharashtra and Mysore are from Sawantwadi to Margao, Sawantwadi to Vasco-da-Gama, Hubli to Margao, Sadashivgad to Panaji, Mormugao Harbour and Mapuca, Belgaum to Mapuca, Bombay to Betim and Belgaum to Margao.

Goa is criss-crossed by as many as half a dozen rivers and rivulets, and internal waterways are being developed fully for transport of men and goods. Bridges across Mandovi and Zuari rivers at Panaji and Cortalim have also been planned. A bridge across the Diu creek at Tad, about three miles from Diu, which links Diu with the mainland of India has been constructed.

There are at present 2,440·189 kilometres of roads in this Territory of which 1,203·650 kilometres are village roads. Nearly 50 per cent of Government roads have black-topped surface.

The West Coast Highway, linking Bombay with Cape Comorin, is expected to be completed shortly, as far as the Goa portion is concerned, to the extent of 140 kilometres.

Construction of the major bridge over Mandovi linking Panaji to Betim was expected to be completed by the end of 1969.

Postal and telegraphic facilities: At present there are 123 post offices in Goa out of which, 53 are provided with telegraph facilities. All towns with more than 2,000 population are proposed to be covered with one post office each. There are nine telephone exchanges with the total installed capacity of 2,200 lines. There are 27 Public Call Offices.

### PRESS

Newspapers: Dailies: English 1, Marathi 2, Konkani 1, Portuguese 1; Weeklies: Konkani 3, Portuguese 2; Fortnightly: Konkani 1; Monthlies: English 2, Marathi 2; Portuguese 2, Konkani 1.

#### DAMAN

Total area 22 sq. miles; Population: 22,390 (1961 census), mostly of Gujarati extraction.

There are some very interesting historical relics here such as the old fort and a few surviving churches reminiscent of the old times.

### DIU

About 150 miles to the north-west of Daman lies the tiny islet of Diu off the southern coast of Kathiawar. It is a small town separated from the mainland by a narrow area of the sea. Dependent on it and surrounded by the territory of Junagadh is the enclave of Gogola and also the island and fort of Pani Cota in the bay of Simbol.

Diu is reached from Bombay by the Western Railway via Viramgam and Delwada. Access by sea is easier and more rapid but there is no harbour.

Area: 15 sq. miles. The population is 14,280 (1961 census).

# PUBLIC HEALTH FACILITIES

Before liberation the Territory had 4 general hospitals, 6 regional hospitals, 3 T.B. hospitals, 1 mental hospital with a total bed strength of 1,098. After liberation a Medical School and a Pharmacy School in Panaji were converted into full fledged Colleges. A basic nursing school and 3 auxiliary midwife schools were also started. Six new Cottage hospitals, a general hospital at Daman and a maternity-cum-family hospital at Aquem were started thereby providing all the Talukas with at least one hospital. At the end of 1968 there were 26 hospitals with a total bed strength of 1,843.

# CO-OPERATIVE MOVEMENT

All the 267 villages in this Territory are covered by the service Co-operatives. In all there are 377 societies of 12 types. Service 177, Consumers 53, Dairy 49, Transport 7, Fisheries 11, Industrial 29, Poultry 4, Housing 14, Farming 3, Marketing 6, Credit 19 and Banks 3. The total membership of societies is 91,895.

# VILLAGE PANCHAYATS

The entire rural area in the Territory is covered by Village Panchayats, numbering 167. The aggregate income of the Panchayats during the year 1968-69 was Rs. 6,28,127.00 as against Rs. 4,88,049.00 during 1967-68.

### HOUSING BOARD

The Goa, Daman and Diu Housing Board was constituted on 20-3-1969. A tentative plan has been framed envisaging a total outlay of Rs. 2·5 crores for the Fourth Five Year Plan. Within this outlay nearly 1,600 tenements are proposed to be built under various schemes.

## ELECTRICITY

The Electricity Dept., in the Territory was created early in Jan. 1963. In 1965-66 bulk power for distribution in the Territory was obtained from Mysore and Maharashtra to Goa and from Gujarat to Daman and Diu. The aggregate maximum power demand in the Territory has increased from 2·4 M.W. in 1965-66 to 12·54 M.W. during 1967-68 and the units sold correspondingly increased from 5·2 million KWH in 1965-66 to 44·3 million KWH in 1967-68. The revenue realised from sale of energy amounted to Rs. 61·0 lakhs in 1967-68 as against Rs. 22·5 lakhs in 1965-66. The number of towns and villages electrified at the end of 1967-68 stood at 11 and 48 respectively.

There are two power development schemes in progress in the Union Territory i.e. (1) Power Development in Goa and (2) Power Development in Daman and Diu for which the Planning Commission has approved an outlay of Rs. 502.00 lakhs during the Fourth Plan period.

# ASSOCIATIONS

GOA CHAMBER OF COMMERCE & INDUSTRY P. Box No. 59, Panaji.

GOA MINERAL ORE EXPORTERS ASSOCIATION Vaglo Building, Rua Condede Tones Novas, Panaji (GOA)

> GOA MINING ASSOCIATION Panaji (GOA)

### ADMINISTRATIVE PERSONNEL

Panaji

Lt. Governor of Goa, Daman and Diu (Concurrently Administrator of Dadra and Nagar Haveli), Nakul Sen.

### Ministers

Chief Minister, General Administration, Spl. Deptt., Planning, Development, Home and Finance and Information and Tourism, Dayanand B. Bandodkar.

Law Agriculture, Industries, Labour and Lagislative Affairs, Anthony J. D'Souza.†

Education, Public Health, Med. Services, Public Works, Gopal Govind Mayekar.

### Minister of State

Planning, Development, Animal Husbandry, Irrigation, Public Assistance, Social Welfare, Small Savings and Panchayat, Atchyut Kashinath Sinai Usgaonkar.

Chief Secretary, K. N. Srivastava, I.A.S.; Collector of Daman, M. S. Dayal, I.A.S.; Civil Administrator, Diu, P. L. Sarda; Judicial Commissioner, C. Morahari Rao; Development Commissioner, T. Kipgen, I.A.S.; Secretary Law, Legislative Assembly, O. P. Garg; Secretary, Industries and Labour, B. Ram, I.A.S.; Finance Secretary, Puran Singh; Revenue Secretary, W. G. Ranadive; Director, Information and Tourism, K. H. Katekar.

# DADRA AND NAGAR HAVELI

Headquarters :- Silvassa.

Administrator: Nakul Sen, I.c.s.; Collector: M. S. Dayal, I.A.S.; Secretary: P. K. Thakkar.

Area: 489 sq. kms.; Population: 57,963 (29,524 Males, 28,439 Females as per 1961 census); Sex Ratio: 963 females per 1000 males; Density: 119 per sq. km.; Literacy: 9.5 per cent.

The Union Territory of Dadra and Nagar Haveli is situated at 500 feet above mean sea level.

The major occupation of the population of this Territory is Agriculture. The rainfall for this Territory is 2,408.8 mms. spread over 72 days in 4 months. The judiciary of the Union Territory is under the jurisdiction of the Bombay High Court. The Varistha Panchayat which is the apex advisory body of the panchayat administration has 21 elected members.

### FINANCE

During the year 1969-70, the Territory had a budget provision of Rs. 1,09·81 lakhs (Plan 41·938 lakhs; Non-Plan 58·572 lakhs, Centrally sponsored Schemes 9·30 lakhs).

### AGRICULTURE AND VETERINARY

An area of 16,527 hectares is under food and nonfood crops while the remaining area is under forest and grass. The major food crop is paddy. The area of paddy under intensive cultivation was 365 hectares. The total quantities of improved and high yielding seeds distributed for paddy were 14,915 kgms. and 3,627 kgms. respectively. The area under Rabi campaign is 331 acres (wheat). Total chemical fertilizers distributed to cultivators was 79.455 tons. The Territory has one Hindustan Tractor of 50 H.P., four Massey Ferguson, four Russian tractors, 14 D. T. and one Escorts Tractor.

The Administration has one veterinary dispensary and two veterinary aid centres, 4,200 animals were given free treatment. Moreover, 3,807 birds and 1,593 animals were protected against contagious diseases. 53 animals were castrated.

One dairy farm for demonstration purpose has been established where the total strength of animals is 52. The average production for milch animal is 5.5 litres per day.

### **FOREST**

Forest occupies 43 per cent of the total area. During the year Teak and Khair species were planted in 20

<sup>†</sup> Have since resigned and their portfolios have been taken over by the Chief Minister.

hectares. Bamboo plantation was done in four hectares and cashewnut in 8 hectares. Six kms. of roadside were planted with Eucalyptus. There are two wet nurseries in this Territory.

### CO-OPERATION

One society was registered during the year bringing the total number of co-operatives to 19 with 3,410 members. The administration has allotted plots to the Government Co-operative Housing Society. Financial assistance to the extent of Rs. 10,000 by way of loans and Rs. 8,000 by way of subsidy for management expenses were granted during 1968-69.

### **EDUCATION**

Twenty-four new primary schools were opened during 1969-70 bringing the total number of primary schools to 150. Number of Pre-primary schools and High schools remained four each. The total enrolment reached 7,168 in the classes I to V, 1,066 in classes VI to VIII and 419 in classes IX to XI. Post Matric scholarships as well as lower income group scholarships to the extent of Rs. 19,919 were given to deserving 35 candidates of which 26 were from lower income group. Also Rs. 3,000 were awarded as scholarships to 20 students studying in High schools for sanskrit

study. 350 boys and 29 girls take advantage of the nine hostels for Adivasi students.

#### POWER

The total no. of villages electrified is 5. The number of consumers during the year 1968-69 was 763 (661 lighting, 5 street lighting, 54 motive, 15 domestic and 28 agriculture).

### **INDUSTRIES**

An industrial estate is rapidly coming up near Piparia, about 2 kms. from Silvassa. By now 109 units have been registered as small-scale units in the field of pesticides, chemicals, plastics, opticals, wood industry, automobile parts, manure mixtures, mineral products, aromatic chemicals and perfumes, engineering products, etc. There are aslo textile and processing units. Out of 109 units registered 24 units have started production and 11 units are under process of installation. The existing units provide employment to 200 workers.

The administration has advanced Rs. 2,08,000 as loans under State Aid to Industries Rules, benefiting 27 parties during 1966-67 to 1968-69. Further, Rs. 17.84 lakhs have been advanced by Gujarat State Industrial Finance Corporation on the recommendation of this Territory.

# GUJARAT

APITAL: Gandhinagar.

Area: 187,091 sq. kilometres. Population: 20.63 million (1961 census). See "Population" for detailed 1961 census figures.

There are 19 Districts and 186 Talukas. The number of municipalities is 59 (including Ahmedabad Municipal Corporation).

Districts with headquarters in brackets are as follows:-

Ahmedabad (Ahmedabad), Baroda (Baroda), Banaskantha (Palanpur), Broach (Broach), Mehsana (Mehsana), Kaira (Kaira), Panch Mahals (Godhra), the Dangs (Ahwa), Surat (Surat), Sabarkantha (Himatnagar), Jamnagar (Jamnagar), Bhavnagar (Bhavnagar), Amreli (Amreli), Junagadh (Junagadh), Kutch (Bhuj), Rajkot (Rajkot), Surendranagar (Surendranagar), Bulsar (Bulsar), Gandhinagar (Ahmedabad).

Gujarat State has a unicameral legislature. The strength of the Legislative Assembly is 168. The State sends 11 members to the Rajya Sabha and 24 to the Lok Sabha.

Though the State has fertile land it is deficit in food to the extent of 1.8 million tons a year. Its resources of industry and power are at the present time low. There is also a surprisingly high percentage of backward and Scheduled Classes and Scheduled Tribes. They constitute 93 per cent of the population of Dangs, 53 per cent in Surat, 38 per cent in Panch Mahals, 47 per cent in Broach and 27 per cent in Baroda. One bright feature is the existence of mineral oil in the Ankleshwar, Kalol and Cambay region.

Gujarati is the language of administration, law courts and university, and Hindi for communication with the Union Government.

At current prices the per capita income in 1966-67 has been provisionally estimated at Rs. 468 compared with Rs. 482 for the Indian Union as a whole. The main source of income is agriculture.

State income for 1966-67 (provisional) in Rs. crores 1,120. Sector-wise distribution: Agriculture and allied industries 599; mining, manufacturing and small enterprises 246; banking insurance, transport and Commerce 136; other services 139.

The percentage of area under barren and unculturable land is very high. This is partly because of extensive barren lands in Kutch. The State is rich in permanent pastures and grazing lands.

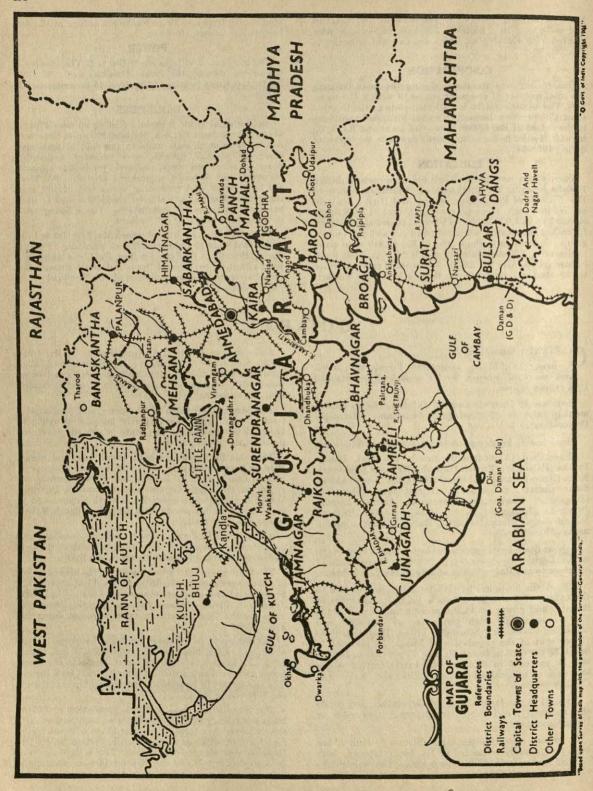
The main foodgrains are bajri, jawar, rice and wheat. Rice is grown chiefly in the south Gujarat districts of Kaira, Panch Mahals, Baroda and Surat; cereals are grown in the north Gujarat and Saurashtra Districts. Wheat is grown more especially in north Gujarat and to some extent in Saurashtra. The district of Panch Mahals is also noted for maize.

Among non-foodgrain crops, cotton, tobacco and groundnut are important. More than one-fifth of the area under cotton in the Indian Union is in this State.

The State has limited forest resources. The area occupied is about 9 per cent of the total geographical area of the State. The forest areas are concentrated mainly in Dangs, Junagadh, Panch Mahals, Baroda, Broach, Surat and Banaskantha Districts and to some extent in Jamnagar and Kutch.

The major forest produce are teak, bamboos, yellow wood, red wood, black wood, sandalwood, Khar, Simal, Dhumda, Dudhia, etc. Minor forest products are grass, honey, wax, colouring wood. Dangs has rich teak forests. The Gir forests in Saurashtra contain a lions' sanctuary, the only one in India.

The State has a total livestock population of 143·38 lakhs and poultry 23·24 lakhs. There is a high proportion of she-buffaloes over three years. The State is noted for its high yield of milk per head of cattle. Certain breeds like Kankrej and Gir are wellknown. The high milk yield generally contributes to the high production of milk and dairy products. (See also page 32.)



Banking facilities are better than in many other States; there were 617 offices of commercial banks located at 255 centres at the end of 1967-68. The co-operative banking offices numbered 394 and they cover 275 places. The deposits and bank credit of the commercial banks amounted to Rs. 329 crores and Rs. 163 crores at the end of 1967.

The Gujarat State Cooperative Land Development Bank Ltd., functions in the State through its 147 branches and 4 Primary Banks.

Gujarat is rich in minerals like salt, limestone, manganese, gypsum, china clay, calcite, bauxite, etc. Large deposits of bauxite of very good grade are located in Saurashtra and Kutch. The reserves of bauxites in the State are of the order of 17 million tonnes. The fluorite deposit located near Chhotaudepur in Baroda district is one of the largest in Asia and has reserves of the order of 11.6 million tonnes. Limestone reserves in the State run into several thousand million tonnes, the best quality limestone being located in Saurashtra and Kutch. The State also has deposits of lignite, china clay and other clays, glass sand and quartz, dolomite, agate, calcite etc.

Oil and natural gas have been found in Ankleshwar, Kalol and Cambay oil fields where drilling is in progress. A refinery has been set up at Koyali in Baroda District.

The major industries of the State are textile (including ginning and pressing of cotton), general and electrical engineering, vegetable oils, chemicals (including salt), soda ash and cement. The concentration of industry is most striking in Ahmedabad, Baroda and Surat.

The distribution would roughly be as follows:—textiles and its ancillaries in Ahmedabad, silver thread in Surat, cement at Porbandar, Dwarka and Sikka, chemicals around Baroda.

There are 49 industrial estates in the State and more are to be started shortly. Government has also decided to carry out pilot plant tests of certain minerals for industrial use.

The available power supply fells short of demand. At the end of 1967-68 only 2,773 villages were electrified by the State Electricity Board out of 19,017 villages in the State.

Road transport is not satisfactory for the State as a whole—14.7 kms. for 100 square kilometres of area or 113 kilometres for a lakh of population.

Saurashtra has a net-work of railways. The Baroda area is also well-served.

There are 51 ports in Gujarat (one major, ten medium, 40 minor). The bigger ports with annual (1966-67) cargo handled:—Kandla (26-61 lakh tonnes), Okha (6·48 lakh tonnes), Bedi (3·66 lakh tonnes), Bhavnagar (7·73 lakh tonnes), Verawal (2·77 lakh tonnes), Sikka (2·37 lakh tonnes), Porbandar (2·61 lakh tonnes).

About education nearly 13.34 per cent of the population attends school.

There are seven universities in Gujarat—the Gujarat Vidyapeeth in Ahmedabad, the Gujarat University in Ahmedabad, the Maharaja Sayajirao University in Baroda, the Sardar Vallabhbai Vidyapeeth in Vallabh-Vidyanagar, South Gujarat University in Surat, Saurashtra University in Rajkot and Ayurved University in Jamnagar.

Each Government dispensary or hospital in the State serves about 18,000 of the population and each bed about 2,400. On an average about 8,540 persons register every month for employment. Out of this about 847 are placed in employment.

The Third Plan total revised outlay was Rs. 236.50 crores and the expenditure during the Plan period was about Rs. 240.19 crores.

## PANCHAYATI RAJ

The three-tier Panchayati Raj system of democratic decentralisation started functioning with effect from 1st April 1963.

It has been accepted as the pattern of local development administration. At each level-village, taluka and district, there is a link between the administrative organi sation and the elected representatives. Apart from carrying out the Municipal functions, Panchayati Raj institutions, are closely and actively involved in the very process of economic development and social advance.

Villages with a population under 10,000 have Gram Panchayats and with 10,000 to 20,000 have Nagar Panchayats. At present there are 11,864 Gram Panchayats and 55 Nagar Panchayats. They cover a rural population of 1·53 crores. Under the Act, 182 Taluka Panchayats and 17 District Panchayats have been established covering the whole State except Dangs and Gandhinagar Districts.

The distinctive features of the Panchayati Raj in Gujarat are as under: A single enactment creating organically linked autonomous statutory bodies at the three tiers; Though autonomous within its own sphere the Gram Panchayat is subordinate to respective District Panchayats; The creation of a powerful executive body at the district level; The conferment of a special status on the Education Committee at district level; Statutory provision for a State Council for Panchayats to advise Government on all policy matters concerning Panchayats; Genuine transfer of powers, functions and duties in the development sphere within the district, along with requisite funds and staff; Built-in scheme for further devolution of powers and dispersal of authority; Transfer of certain regulatory revenue functions to the Panchayati Raj Bodies; Statutory assignment of 100 per cent land revenue to Panchayati Raj Bodies; Creation of non-lapsable funds for assisting weaker areas, encouraging taxation efforts and financing developmental activities; and Constitution of a Service Selection Board at the State level and District Selection Committees at the District level for recruitment and advice in service matters.

### Village Volunteer Force

For the total mobilisation of both human and material resources for the defence effort the scheme of the Village Volunteer Force has been implemented throughout the State with effect from Jan. 26, 1963.

As an integral part of this scheme, Defence Labour Banks are being organised in every village. The total number of Defence Labour Banks organised upto August 1965 is 4,845. The bank is based on the donation of free labour at the minimum rate of one day per month from every able-bodied adult or monetary contribution in lieu.

# BASIC FACTS AND FIGURES

No. of towns 181; no. of villages 19,017.

Land utilisation—in '000 Hectares for 1965-66: Area under forest 1,635; Barren and uncultivable land 4,377; Permanent pastures and grazing groves 1,010; Net area sown 9,688.

Geographical area and classification—as on May 31, 1969 (area in '000 hectares): 18,709; reporting area for land utilization 18,533; Forests 1,618; Area put to non-agricultural uses 522; Barren land 4,395; Permanent pastures 1,010; Land under miscellaneous trees 23;

Culturable waste land 541; Fallow lands 294; Current fallows 442; Total 736; Net area sown 9,688; Total cropped area 10,188; Area sown more than once 500; Net irrigated area 1,041.

Cereals—area & production for 1968-69 (figures in '000 hectares and 1000 tonnes respectively): Rice 513.8; 463.5; Jowar 1,354.9; 400.5; Bajra 1,791.5; 1,182.7; Maize 236.4; 275.8; Ragi 62.4; 50.8; Small millets 135.0; 102.3; Wheat 552.6; 700.4; Barley 3.3; 1.6; Total 4,649.9; 3,177.6.

**Oilseeds**: Groundnut  $1,798 \cdot 0$ ;  $806 \cdot 2$ ; Castorseed;  $50 \cdot 3$ ;  $18 \cdot 6$ ; Sesamum  $121 \cdot 8$ ;  $25 \cdot 7$ ; Rapeseed & Mustard  $27 \cdot 5$ ;  $11 \cdot 2$ .

Cotton 1,607.9; 1,424.8†; Sannhemp 1.7; 0.7.

OTHERS: Potato 3.8; 74.6; Guarseed 138.91; 80.01.

Agricultural implements in 1966: Wooden ploughs 14,40,965; Iron ploughs 1,44,543; Carts 7,32,982.

Sugarcane crushers worked by power 2,100; Sugarcane crushers worked by bullocks 2,677; Oil engines with pumps for irrigation 112,428; Electric pumps for irrigation 14,729; Government tractors 222; Ghanis five kgs. and over 1,837; Ghanis less than five kgs. 1,362.

Livestook position in 1966 (The figures in lakhs): Total livestock population 143·38; Total Poultry 23·24; Buffaloes—Females over 3 years 18·20; Cows over 3 years 17·80.

Co-operation in 1966-67\*\* (Number of societies): Agricultural societies 11,413; Non-agricultural societies 7,199; Land mortgage banks (including State Level Banks) 5; Central Banks (including State Banks) 20; Total 18,637.

Their membership, share capital and loan operations can be seen from the table below :-

			Membership as on 30-6-1967 (in '000)	Share capital as on 30-6-1967 (Rs. in lakhs)	Loans advanced during 1966-67 (Rs. in lakhs)	Loans recovered during 1966-67 (Rs. in lakhs)	Loans outstanding as at the end of 1966-67 (Rs. in lakks)
Agricultural Societies	 10.14	(min	1,671	2,552	6,037	5,246	5,827
Non-Agricultural Societies	 		1,128	1,487	5,406	4,427	4,658
Land Mortgage Banks	 		583	400	869	380	3,721
Central Banks	 1000		28	1.254	12,683	11,929	8,420

Joint-Stock Companies as in March 1967:—(Provisional). The first figure shows the number of companies, the second authorised capital and third paid-up capital in '000 Rs. Agricultural and allied activities 6; 3,300; 2,582; Mining and quarrying 16; 24,435; 15,047; Processing and manufacture of food, textile, leather and products thereof 233; 10,47,228; 471,824; Processing and manufacture of metals, chemicals and products thereof 278; 10,06,811; 397,400; Processing and manufacture not elsewhere classified 116; 317,570; 124,614; Construction and utilities 35; 51,510; 18,908; Commerce (Trade and Finance) 311; 337,483; 115,018; Transport, communications and storage 19; 42,325; 11,986; Community and business services 34; 5,887; 2,347; Personnel and other services 19; 27,000: 17,008; Total 1,067; 2,863,549; 1,176,734.

Medical Statistics for 1966:—No. of hospitals and dispensaries 1,273; no. of beds 11,092; no. of indoor patients treated 3,34,000; no. of outdoor patients treated 63,74,000; no. of doctors 1,492; no. of nurses 1,645. There are four Govt. Medical Colleges in the State in addition to a Dental College. An outlay of Rs. 14.63 crores has been provided in the Fourth Plan.\*

Educational Statistics for 1968-69 (Provisional): Below we give the number of institutions under each category and the students respectively. Primary Schools 21,500; 3,400,000; Secondary Schools 2,010; 7,30,000; Higher Secondary Schools 250; 125,000; Others 2,950; 130,000.

Electric Power: Installed capacity (provisional) in M.W. as on 31-3-1967: 618; No. of places electrified by Gujarat Electricity Board as on 31-3-1968: 2,628.

Industries (as at the end of 1968):—No. of factories  $5{,}094$ ; employment  $4{\cdot}05$  lakhs.

Information about number of working factories and average number of workers employed therein daily respectively under each category is given below:—

Textile 881; 184,855; food except beverages 711; 30,153; tobacco 227; 7,619; non-metallic mineral products

except petroleum and coal 482; 29,131; processes allied to agriculture 467; 42,062; machinery except electrical 607; 26,481; transport equipment 189; 15,685; others 1,530; 69,065.

Mineral Production as in 1967. The gross value of production (in '000 Rs.) of certain minerals is given below.

Bauxite 1,677; Calcite 49; Chinaclay 1,316; Dolomite 932; Fireclay 272; Limestone 11,075; Quartz and Silica 192; Salt 35,343.

### **Employment Exchanges**

During the year 1968-69, about 14,000 persons were placed in employment as against the total registration of 176,000.

Transport (Nationalised Motor Transport system—Statistics for 1968-69): Number of routes operated 4,235; Route kilometres covered 189,000; Average number of passengers carried per day 10·94 lakhs; Average daily traffic earnings Rs. 7·33 lakhs.

Number of motor vehicles on road as on 31-3-1969: Motor Cycles 29,174; Motor cars 24,813; Taxi cabs 1,158; Auto Rickshaws 5,061; Stage carriages 4,096; Private carriers 3,028; Public Carriers 11,262; Others 9,909.

Roads: Length of roads as on 31-3-1969: 29,533 kilometres.

Railways: Approximate mileage (1968-69) in kilometres: Broad Gauge 931; Metre Gauge 3,381; Narrow Gauge 1,141.

### Village Panchayats (1967-68):-

Taluka Panchayats 182; Gram Panchayats 11,864; Nagar Panchayats 54; District Panchayats 17.

### Community Development Programme 1968-69:

Stage I blocks 55·00; Stage II blocks 51·75; MDP and T.D. Blocks 50·00; Population covered by C.D. & T.D. Blocks 1·83 erores.

† Production (thousand bales of 180 kgs.). ‡ Figures are for 1967-68.

The physical achievements in respect of the main items are as follows:—

Fertilizers distributed ('000 Quintal) 3,447; composite demonstrations held (Nos.) 10,912; additional area brought under irrigation ('000 Hectares) 130; drinking water wells constructed (Nos.) 646; drinking water wells renovated (Nos.) 787; adult education centres started (Nos.) 1,505; adults made literate (Nos.) 24,991; kacha roads constructed (kms.) 1,187.

Small Savings:—During 1967-68 the target for small savings was fixed at Rs. 12 crores against which the net collections amounted to Rs. 4.74 crores.

Housing: The total allocation for housing in Gujarat in the Third Plan was Rs. 1,039 lakhs. The allocation for the first three years was Rs. 391.07 lakhs, but the amount actually drawn was only Rs. 246.11 lakhs.

Consumer Price Index number (base 1960 = 100):— (For Ahmedabad).

		1965	1966	1967	1968
Food		135	150	189	180
Fuel, lighting		120	126	132	140
Clothing	J. K	120	120	125	130
Housing		104	106	109	110
Miscellaneous		126	138	151	159

Index nos. of wholesale prices (base 1962 = 100):—as in 1968.

Rice (medium)  $260 \cdot 9$ ; wheat (medium)  $176 \cdot 9$ ; Jowar  $175 \cdot 5$ ; Bajri  $177 \cdot 9$ ; Turdal  $226 \cdot 7$ ; Groundnut oil  $158 \cdot 5$ ; Gur  $339 \cdot 9$ ; Sugar  $140 \cdot 2$ .

Small-Industries Corporation: The corporation is expected to give aid, counsel, assist and to promote the interests of small industries in the State by providing technical and managerial assistance, and procuring raw materials, machinery, equipment, tools etc. required by the small industries.

## ELECTRIC POWER PROJECTS

The position as at the end of 31st March, 1969 in respect of the entire power system under the Board's control was as follows:—

Gross fixed assets of the Electricity Board: Rs. 11,822·24 lakhs. Amount spent on electricity: Rs. 1,565·89 lakhs. Working expenditure: Rs. 1,379·25 lakhs. Particulars of installed generating capacity, maximum demand etc., are given below:—

- 1. Installed Generating Capacity (M.W.): (a) Thermal 384·500; (b) Diesel 32·711; Total 417·211.
- 2. Firm Generating Capacity (M.W.): (a) Thermal 287.000; (b) Diesel 17.594; Total 304.594.
  - 3. Maximum Demand (M.W.): 348.600 (coincident).
- 4. Units Generated and or Purchased (KWH × 10):
  (a) By Thermal Power Station 2,152·7; (b) By Diesel Stations 20·0; (c) Bulk Purchase 103·6; Total 2,276·3.
  - 5. Units Sold (KWH × 10): 1,752.33.
- 6. Auxiliary consumption (KWH  $\times$  10) and percentage respectively:  $174 \cdot 9$  (7 · 69).
- 7. Transmission Losses (KWH  $\times$  10) and Percentage respectively: 349.07 (15.35).
  - 8. Connected load (MW): 830.0.
- 9. Consumers served (No.): (a) Agricultural 38,735; (b) Total 5,58,998.

- 10. Transmission lines (11 KV and above) (Circuit KM): 25.780.
  - 11. Distribution lines: 15,442.
  - 12. Transformer Capacity (MVA): 2,612.
  - 13. Towns and Villages electrified (No.): 2,904.

### **IRRIGATION PROJECTS**

Over Rs. 1,700 lakhs have been allocated for irrigation schemes in Gujarat for the year 1968-69.

Below we give a table in which are shown irrigation projects under construction:—

	Name of Project (in	Estimated cost lakhs of Rs	irrigated on completion
1.	Ukai (under revision)	6,120.02	3,76,600 In addition it will assure irrigation to 5,62,250 acres of Kakrapar.
2.	Kadana	1,790 · 76	40,905 In addition it assures irrigation to 6,39,600 acres under the command of Mahi Right Bank Canal Project Stage I.
3.	Narmada*	4,141.43	9,97,500
4.	Kakrapar	. 1,857.00	5,62,250
5.	Mahi Right Bank Canal	2,456.83	4,60,000
	Project Stage I Dantiwada	1,087.94	1,10,000
		544.58	92,900
1.	Hathmati	044.00	Including 47,800 acres of land under the existing canal system.
8.	Meshwa	314 - 33	59,050
	Saraswati (under revision).	131 · 53	16,600
10.	Shetrunji (Palitana)	@ 696·00 -	
11.	Bhadar@	417.29	42,400
12.	Shetrunji (Khodiar)	@ 190·88	19,000
13.	Machhu II	213.88	19,000
14.	Sabarmati (Dharoi)	1,655.00	98,000 (direct);

\* Final decision on the scope of the project is pending @ Practically completed. † For 3 ft. high gates over the spillway of the dam. ‡ In addition it will assure irrigation to 62,000 acres under the Fatewadi canal system. Clearance from Planning Commission is awaited.

### Ukai Project

The project envisages the construction of a reservoir on river Tapi at Ukai in Surat district at an estimated cost of Rs. 6,120.02 lakhs (as revised) to irrigate 376,600 acres of land in Surat and Broach districts. In addition 5,62,250 acres, at present under Kakrapar canals, will get assured supply of water.

Besides, 27,800 acres under command of Ukai canal and 56,200 acres under Kakrapar system will receive perennial irrigation. It also provides for generation of installed power of 1,93,000 kW. at 35 per cent load factor.

The works on the project have now gathered full momentum.

Expenditure at the end of March 1969 was Rs. 46.84 crores. Budget provision for the year 1969-70 was Rs. 11.74 crores under irrigation sector and Rs. 3.00 crores under power sector.

## Kadana Project (Mahi Stage-II)

The project envisages the construction of a reservoir on the Mahi river near Kadana village of Santrampur taluka in the Panch Mahals District at an estimated cost of Rs. 1,790.76 lakhs. The catchment area of the site is 9,840 sq. miles. A direct canal from the reservoir will irrigate 40,905 acres of land in the Panch Mahals district. The storage will also provide assured water to 6.39 lakh acres in the command of Mahi Stage I project.

It is also proposed to generate hydro-power from the irrigation releases. A hydro-power project estimated to cost Rs. 5·16 crores is submitted to C.W. & P.C.

Expenditure to the end of March 1969 was Rs.  $2\cdot49$  crores. Budget provision for the year 1969-70 was Rs.  $2\cdot45$  crores.

# Narmada Project

The first stage sanctioned for Rs. 4,141-43 lakhs envisages construction of a dam across the river near the village Navagam in Rajpipla taluka of the Broach District with canal system to irrigate an area of 9,97,500 acres of the Broach and the Baroda districts. The Committee appointed by the Government of India in 1964 under the chairmanship of Dr. A. N. Khosala has recommended F.R.L. 500 for the Navagam Dam, irrigation of 45.81 lakh acres in Gujarat and I lakh acres in Rajasthan and installation of generating units of 1,000 M.W. and 240 M.W. in the river bed and canal power houses respectively. As an interstate understanding could not be reached on the basis of these recommendations, the Government of India has referred this matter to a tribunal constituted under Inter-State Water Disputes Act, 1956. Pending the final decision on the scope of Narmada Project, only preliminary works are in progress.

Expenditure to the end of March 1969 was Rs.  $4\cdot36$  erores. The budget provision for 1969-70 was Rs.  $27\cdot25$  lakhs.

# GUJARAT HOUSING BOARD

The Gujarat Housing Board: The present term of the Board expires on 31-8-1970.

The Board collects annually about Rs. 50 lakhs by way of rent and Hire Purchase instalments. The management expenses for collection of the above revenue is met with within 0.5 per cent of the capital fixed assets of the Board. The financial position of the Board is in excellent state.

## ACHIEVEMENTS:-

(a) Housing Scheme:

	ments comple- ted plus under construction on 31-3-1969	l plus under incurred upto onstruction 31-3-1969	
1. Subsidised Industrial		Rs.	
Housing Scheme 2. Low Income Group	19,740 + 150	727.72 lakhs	
Housing Scheme 3. Middle Income Group	2,362 + 1,574	256.81 lakhs	
Housing Scheme		137.74 lakhs	
Total	22,708 + 2,126	1,127.27 lakhs	

No. of tene-

(b) Employees' State Insurance Scheme:

		Work done	Cost
			Rs.
1.	Dispensaries	. 33 completed	90.00 lakhs
2.	Hospitals	2 under con- struction	150.00 lakhs
3.	Diagnostic Centre	1 under con- struction	15.00 lakhs
4.	Staff quarters	. 70 completed	7.00 lakhs
5.	Local office building	4 completed	11.00 lakhs
	Total		273 · 00 lakhs

The Board has constructed 2,222 flats/houses on Hire Purchase basis in the various towns of Gujarat till the end of 31-3-1969. In addition, 2,024 flats/houses were under construction during the year 1969-70.

The Board has also prepared detailed regulations with the approval of the State Govt. for sale of existing tenements constructed under the Subsidised Industrial Housing Scheme occupied by workers on hire or direct purchase basis. The State Govt. had moved the Union Govt. to approve the proposal of the Board and the Govt. of India has conveyed its approval to the sale of 16,689 tenements to the eligible occupants on Hire Purchase basis without the elements of subsidy i.e. at full cost. This scheme will be launched by the Board very soon.

## Employees' State Insurance Scheme

Under this scheme the Board has already undertaken works of about 3 crores of rupees. The Board has constructed 33 dispensaries in Ahmedabad and the same have been handed over to the E.S.I. Corporation. The work of constructing 200 bedded T.B. Hospital at Naroda, Ahmedabad is nearly completed. The 500 bedded General Hospital at Bapunagar, Ahmedabad is also under construction and it is expected to be completed very shortly. The Board has also been entrusted with the work of constructing dispensaries and hospitals at Baroda, Rajkot, Surat, Bhavnagar and Wankaner.

## AHMEDABAD DISTRICT\*

Headquarters: Ahmedabad.

Talukas or Mahals: Deskroi, Dhandhuka, Dholka, Dehgam, Viramgam, City Taluka Sanand.

The District as a whole is open and poorly wooded. The chief trees are mango, rayan, mahua and nim. Many of the trees and shrubs supply food, medicines and material for dyeing and tanning.

The rainfall varies but slightly between the central portions of the District and the outlying tracts. The annual rainfall averages about 30 inches.

The chief food crops are wheat, jowar and bajra and the chief money crop, cotton. The best rice is grown in Daskroi and the next best in Sanand and Dholka.

Ahmedabad city which is the second biggest textile centre in India is the only large industrial area in the District. The number of textile mills and factories is about 150 including about 72 textile mills. Ahmedabad is also a centre of railway communications. Ahmedabad has also a number of archaeological landmarks and an international diversionary airport.

The population of Ahmedabad City according to the 1961 census was 11.5 lakhs, but the present population is about 14 lakhs.

## AHMEDABAD MUNICIPAL CORPORATION

Mayor: Narottambhai K. Jhaveri.

Dy. Mayor: Dahyabhai K. Patel.

## ADMINISTRATIVE PERSONNEL

Municipal Commissioner: P. B. Mehta, I.A.S.

Deputy Municipal Commissioners: N. H. Thacker, M.Com., LL.M. and M. A. Panchal.

Municipal Secretary: N. M. Desai.

### Budget 1968-69

Revenue Receipts: Rs. 10,49,18,184; Expenditure: Rs. 10,53,71,156; Outlay on works: Rs. 6,22,12,000.

# **GUJARAT UNIVERSITY**

(Ahmedabad 9) (Total Affiliated Colleges: 113)

Chancellor: Shriman Narayan.
Vice-Chancellor: U. J. Joshi, M.A.
Registrar: K. C. Parikh.

### **Budget 1968-69**

Income: Rs. 90,39,550 (Recurring), Rs. 1,75,532 (Non-recurring).

Expenditure: Rs. 65,02,330 (Recurring), Rs. 2,59,300 (Non-recurring).

Total number of students on the rolls of the colleges and recognised institutions (1968-69): 39,866.

Number of External students registered (1968-69): 9,207.

## GUJARAT VIDYAPITH

(National Univ. of Gujarat) Ahmedabad-14

Founded by Mahatma Gandhi in 1920. The Vidyapith works for spreading national education and particularly strives to make basic national education popular and was founded with the aim, among others, of providing university instruction in the mother-tongue. It confers the degree of Bachelor of Social Sciences to its students who have undergone three years' course after matriculation. It has provision for Post-graduate teaching for Master's degree in Hindi, Gujarati, Rural Economics, Social Anthropology, Education, Gandhian Philosophy and for Certificate courses in Translation and Linguistics. It also runs a Tribal Research & Training Institute, an experimental basic school and five village-service centres including one for training Panchayati Raj administrators. It also conducts two courses for training Hindi teachers equivalent to T.D. and B.Ed. and another course equivalent to B.Ed. for Basic Education Teachers for Secondary Schools. Since 1963, the Vidyapith has been declared by Government of India as an institution deemed to be University under Section 3 of the U.G.C. Act.

Chancellor: Morarji Desai; Vice-Chancellor: Thakorebhai Desai; Mahamatra: Ramlal Parikh.

# AMRELI DISTRICT\*

Headquarters : Amreli.

Talukas and Mahals: Amreli, Kodinar, Dhari, Khambha, Jafrabad, Rajula, Lilia, Lathi, Kunkavav, Vadia, Babra.

The District is level country broken only by Gir Hills in

the Dhari Taluka. The average yearly rainfall is between 23 to 25 inches.

The Okha Port in Amreli District is one of the best deep sea ports in India. In Okhamandal Taluka, Port Okha, Mithapur and Dwarka have become industrial centres.

# BANASKANTHA DISTRICT\*

Headquarters : Palanpur.

Talukas and Mahals: Palanpur, Deesa, Dhanera, Vadgam, Tharad, Wav, Deodar, Kankerj, Danta, Radhanpur, Shanthalpur,

<sup>\*</sup> See article on "Population" for area and population figures.

# **BARODA DISTRICT\***

Headquarters : Baroda.

Talukas and Mahals:—Baroda, Savli, Waghodia, Padra, Karjan, Sinor, Dabhoi, Sankheda, Naswadi, Chhota-Udepur, Jabugam, Tilakwada.

Geological experts of the Oil and Natural Gas Commission of the Govt. of India are prospecting for oil in Baroda. Oil and Natural gas workshop has been located at Baroda at a cost of Rs. 2 crores. Gujarat Refinery with a capacity of 3.5 million tons has been set up in this District, and the capacity was to be increased to 4 million tons by June 1970.

Ankleshwar gas will be made available to Baroda industries and domestic consumption soon.

The first phase of the public sector Petro-Chemical Complex to be located near Baroda will go into stream by the end of 1970, when T.N.T. the basic raw-material for terylene fabrics would be manufactured, followed by benzine.

The District as a whole has not less than 1,656 primary schools, 185 secondary schools, 800 libraries, 300 gymnasiums and welfare associations.

The annual rainfall averages about 30 inches. The chief food crops are wheat, jowar, bajra, pulses, kodra, bawta, maize. Rice is now grown extensively interspaced with cotton.

Baroda, the headquarters of the District is fully modernised. The District is also well advanced in industry. In recent years a number of factories, big and small have sprung up. It is also the Headquarters of Oil & Natural Gas Commission Establishment in Gujarat.

Among the large medical institutions the most important is the Shri Sayajirao State General Hospital in Baroda city. There is also the Shri Jamnaba Hospital run by the Government. A new Hospital at a cost of Rs. one crore is under construction. Shri Padmavatibai Tuberculosis Hospital and Sanatorium is located some 8 miles from Baroda city.

# MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA Baroda 2.

Chancellor: His Highness Shrimant Fatesinh Gaekwad, Maharaja of Baroda.

Vice-Chancellor: Dr. C. S. Patel.

Pro-Vice-Chancellor: Prof. P. J. Madan.

Registrar: B. K. Zutshi.

Budget for the year 1969-70:

Estimated Income: Rs. 1,25,84,142 including Government of Gujarat grant of Rs. 66,81,000. Estimated Expenditure: Rs. 1,51,11,902.

# **BHAVNAGAR DISTRICT\***

Headquarters : Bhavnagar.

Talukas: Bhavnagar, Botad, Gadhada, Kundla, Mahuva, Palitana, Sihor, Talaja, Datha, Umrala, Vallabhipur, Gariadhar, Gogho. The port of Bhavnagar is well-equipped, and it is one of the main trading centres of the area.

The main crops are bajra, jawar, oilseeds, rice, cotton and wheat.

# BROACH DISTRICT\*

Headquarters: Broach. Sub-Division: Rajpipla.

Talukas and Mahals: Broach, Vagra, Amod, Jambusar, Ankleshwar, Hansot, Nandod, Jhaghadia, Valia, Dediapada, Sagbara.

The language spoken is Gujarati.

# BULSAR DISTRICT

Population: 1,042,561. Headquarters: Bulsar, Bulsar City. Talukas: Navsari; Chikhli; Bansda; Bulsar; Dharampur; Pardi and Umbergaon.

Mahal: Gandevi Mahal.

Bulsar is a "BAGAYAT" district famous for its fruit gardens especially as "Mango" producing centre. Its

importance has increased due to the establishment of Atul Products at the foot of the Parnera Hills, near Bulsar. On the other side of the Town is situated 'Tithal' on seashore a place for Holiday Home. The new district can also boast of having one sugar factory at Gandevi.

# DANGS DISTRICT\*

Headquarters: Ahwa.

Taluka: Dangs.

The language spoken by the Dangis is called Dangi.

· See article on "Population" for area and population figures.

The District contains some of the richest forests in Gujarat State, which form the principal source of revenue. Dangs teak is considered as one of the best varieties of Indian teak.

# JAMNAGAR DISTRICT\*

Headquarters : Jamnagar.

Talukas: Jamnagar, Dhrol, Kalavad, Khambalia, Jamjodhpur, Bhanvad, Jodia, Kalyanpur, Lalpur, Okhamandal.

There are seven towns and 656 villages in the District.

People live mainly on agriculture. Including both cultivated and waste land the District has an area of 21,97,674

acres. The average rainfall is 20" to 22". Potato is cultivated on a large scale in the district.

The main small industries are the manufacture of agricultural implements, brass and copper vessels, the making of baskets, the manufacture of tiles, lime, oil crushing, handlooms, salt, the keeping of poultry.

Sikka, Bedi and Rosy are the three ports of the district. Sikka is known for its cement industry.

# JUNAGADH DISTRICT\*

Headquarters: Junagadh.

Talukas and Petas: Bhesan, Junagadh, Keshod, Kutiyana, Malia, Manavadar, Mangrol, Mendarda, Patan, Porbandar, Ranavay, Talala, Una, Vanthali, Visavadar.

Agricultural land under paddy, jawar, bajra, wheat, groundnut and cotton is 14,09,400 acres in extent.

Junagadh is well-known because of the lions in the Gir forests. This is the only place in Asia where lions are found.

Porbandar and Veraval are the two important ports in the district.

The main industries of the district consist of cement, ginning and pressing, oil, etc. New industries like soda-ash and rayon are coming up.

## KAIRA DISTRICT\*

Headquarters: Kaira (Revenue), Nadiad (Judicial).

Talukas and Mahals: Matar, Mehmedabad, Nadiad, Kapadvanj, Anand, Borsad, Thasra, Balasinor, Cambay, Petlad.

The language spoken is Gujarati.

Tobacco is grown in Kaira District while at Sevalia in the Thasra, the A.C.C. has a cement factory. The Government of India have opened a tobacco research institute at Anand.

There is an Infant Food & Cheese Plant at Anand run by the Kaira Dt. Co-op. Milk Producers' Union Ltd. SARDAR PATEL UNIVERSITY

Vallabh Vidyanagar, W. Rly. (Gujarat).

The Sardar Patel University is a teaching and affiliating University in a rural setting with the object of accelerating the process of regeneration of villages by the application of modern Arts, Sciences and Technology to rural requirements.

Constituent Colleges: 14.

Post-graduate Departments: 14.

Chancellor: Shriman Narayan, Governor of Gujarat.

Vice-Chancellor: I. J. Patel. Registrar: K. A. Amin.

# **KUTCH DISTRICT\***

Headquarters : Bhuj.

Talukas and Mahals: Bhuj, Mandvi, Mundra, Anjar, Rahpar, Bhachau, Nakhatrana, Lakhpat, Abdassa, Khavda and Khadir.

Kutch is a semi-arid region. Rainfall is very irregular and scanty. Sub-soil waters in 70 per cent of the area are saline.

Agriculture: There is a fair proportion of good cultivable land in Kutch, the principal crops being bajra, jawar, wheat, barley, cotton and pulses. The cultivation of groundnuts is also increasing day by day.

The whole Dist. is covered under the Community Development Programme.

Position of the road mileage at the end of the Third Five Year Plan period: Total mileage 1,178; National Highways 47 miles, State Highways 311 miles, Major District Roads 432 miles, other District Roads 306 miles and village approach roads 82 miles.

The District is rich in gypsum, clays and limestone, and has large deposits of lignite, bauxite and ochres.

Kutchis are an enterprising and seafaring people. Over six lakhs of Kutchis are distributed in principal cities of India and over 15,000 are abroad.

\* See article on "Population" for area and population figures.

The main items of export are salt, cotton, wool, easter seeds, bones, hides, skins and fish. The main items of import are foodgrains, oil seeds, cloth, condiments, etc.

Education: There are 39 High Schools and 686 primary schools. There are also two Basic Training colleges for primary teachers and a school for the deaf and dumb. There are 3 colleges at Bhuj, Adipur and Mandvi.

Health: Free medical relief is available in the district. There are 24 hospitals, 57 dispensaries, 9 primary health centres, one T.B. sanatorium, 3 T.B. clinics, one mental hospital, one laboratory and two eye hospitals. There are also 21 private hospitals and dispensaries.

Transport: 447 villages and towns are served by Road Transport Corporation on 11 different routes covering a route of 3,897 miles a day. The length of railway line passing through the district is 202·13 K. metres.

Kandla is a major port. Minor ports are Mandvi, Mundra, Jakhau, Lakhpat and Koteshwar.

The new townships of Gandhidham and Adipur have been established near Kandla to resettle the displaced persons from West Pakistan. One Industrial Estate is also organised near Gandhidham.

# **MEHSANA DISTRICT\***

Headquarters: Mehsana.

Talukas and Mahals: Patan, Chanasma, Sidhpur, Mehsana, Kheralu, Visnagar, Kalol, Vijapur, Kadi, Sami, Harij.

# PANCH MAHALS DISTRICT\*

Headquarters: Godhra.

Talukas and Mahals: Godhra, Dohad, Kalol, Halol, Jhalod, Deogad-Baria, Limkheda, Santrampur, Lunavada and Shehera Talukas, and Jambughoda Mahal.

The total area under agriculture is 14,42,666 acres yielding 421,000 tons of foodgrains including cereals, pulses, oilseeds and all edibles principally groundnuts. The acreage under different crops are: Paddy 31,842, Bajri 5,740, Jawar 2,540, Groundnuts 43,530, Wheat 10,168, Maize 72,026, and Gram 3,970. The areas covered by cash crops are Digvijaya and Vijaya cotton 47,798, CO2 12,549, Tobacco 2,861 acres. There is a Hybrid maize breeding research centre in 25 acres at Vavdi-Bijarag on the outskirts of Godhra.

The average rainfall in the district is now only 25 inches. The lowest temperature is 40 degrees F. heat and highest 115 degrees F. heat.

The District has a forest area of 515,848 acres. The forests yield teak-wood, and hard-wood such as Mahuda, Sadad, Kher and Dhavda. The forests also produce Mahuda flowers, hay-fodder, timru leaves for bidi manufacture, and bamboos.

The irrigation projects in the District are Pata-Dungri Dam south of Dohad, Suki Dam north of Dohad in Jhalod Taluka, Titodi Dam south of Jhalod, and Karad Right Bank Dam in Devgad-Baria Taluka, and Tanachhida Irrigation project 15 miles from Dohad.

Agriculture, Mining and Forest produce are the main industries in the district which contains rich mineral deposits such as manganese ore, galena, copper, limestone. There are big manganese mines worked at Shivrajpur, Pani Mines and Bamankuwa.

## COMMUNICATIONS

Bombay-Delhi Broad-gauge main line of Western Railway passes through Panchmahals district. Gujarat State Road Transport Corporation also runs various bus services and operates numerous routes in the district.

Pavagadh Hill station about 2,600 feet in height is situated in Halol taluka about 22 miles from Godhra. It is also a pilgrim centre.

The famous Bhadrakali temple of goddess is on the peak of the Hill and there are ancient monuments preserved by Archaeological Department of the Central Government.

# RAJKOT DISTRICT\*

Headquarters : Rajkot.

Talukas: Rajkot; Jasdan; Babra; Morvi; Wankaner; Gondal; Jetpur; Dhoraji; Kandorna; Kotda-Sangani; Lodhika; Maliya Padadhari, Upleta.

Rajkot District has four sub-divisions, nine talukas,

five mahals and one peta mahal.

The area of the land under cultivation is about 21,38,678 acres. The main industries of Rajkot District consist of textiles, hosiery, handlooms, the production of hydrogenated oils, potteries, salt-making, engineering, etc.

# SAURASHTRA UNIVERSITY

Rajkot

Instructions in the following faculties are imparted in the University:

Arts, Science, Commerce, Education, Agriculture, Medical, Law, Rural Studies. Of these, the faculties of Education, Science, Commerce and Rural Studies of the University are at Bhavnagar.

It is an affiliating University.

Chancellor: Shriman Narayan, Governor of Gujarat State; Vice-Chancellor: D. R. Mankad; Registrar: V. M. Desai.

No. of affiliated Colleges: 42. No. of Recognised Institutions; 2; No. of Students in the University: 20,700. Budget (1969-70).

Total Income: Rs. 26,52,000 (excluding Govt. Grant).

Total Expenditure: Rs. 42,56,000.

# SABARKANTHA DISTRICT\*

Headquarters: Himatnagar.

Talukas and Mahals: Himatnagar, Prantij, Modasa, Bayad, Idar, Khedbrahma, Bhiloda, Meghraj, Vijaynagar, Malpur.

The average yearly rainfall is between 25 and 30 inches.

The principal crops are bajri, maize, paddy, jawar, cotton, wheat, sesamum and groundnut. About 30 per cent of the people consist of Bhils and other backward classes. The main occupation of the people is agriculture. Except for a few ginning factories and oil mills, the District is very backward in industry.

# SURAT DISTRICT\*

Headquarters : Surat.

Talukas: Olpad; Chorasi; Mangrol; Kamrel; Mandvi; Bardoli; Songadh; Vyara and Mahuva.

Mahals: Palsana; Valod; Uchhal and Nizar.

\* See article on "Population" for area and population figures.

Besides being noteworthy historically, Surat is the biggest jari production as well as artsilk powerloom centre. Nearly half the population of the city depends on handicrafts. Jari work, laces, silk and jari brocades, embroidery, ivory and sandalwood carving, inlay work of

varakh-nakashi and ivory bangles are the major handicrafts for which Surat is famous not only throughout India but even abroad. A co-operative industrial estate which has developed at Udhna, three miles from Surat, is stated to be the biggest industrial estate of its type in the country. There is one sugar factory at Bardoli.

## SOUTH GUJARAT UNIVERSITY

Navyug College Bhavan, Rander Road, Surat-1.

It is a teaching and affiliating University.

Chancellor: Shriman Narayan, Governor, Gujarat State. Vice-Chancellor: Prof. C. N. Vakil; Registrar: G. A. Desai.

No. of Affiliated Colleges: 27.

management practices.

# SURENDRANAGAR DISTRICT\*

Headquarters: Surendranagar.

Tahsils:—Wadhwan (Wadhwan); Chotila (Chotila); Mull (Mull); Dhrangadra (Dhrangadra); Halvad (Halvad); Dasda (Dasda); Limbdi (Limbdi); Lakhtar (Lakhtar); Sayla (Sayla).

There are about 12 towns with a population of over 5,000 and 672 villages.

About 70 per cent of the population lives in the rural areas. The main occupation of the people is agriculture, and the important crops are bajra, jawar, cotton, paddy, groundnut, wheat and gram.

The main industries of the district consist of textiles, salt, soda-ash, potteries, ginning and pressing factories.

### ASSOCIATIONS

### Ahmedabad

# AHMEDABAD MILLOWNERS' ASSOCIATION Post Box No. 7, Navrangpura, Ahmedabad 2.

President: Priyakant T. Munshaw; V. President: Jayantilal Bhikhabhai.

# AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION

Navrangpura, Ahmedabad 9.

Aims and Objects: 1. Research for improved materials, technology and human relations in industry. 2. Dissemination of scientific knowledge and consultation to member mills to solve current operational problems. 3. Training for specialised jobs such as laboratory-in-charge, quality control officers, supervisory and operative training officers, guidance to research student for post-graduate degrees of Gujarat University, M. S. Univ. of Baroda, Bombay Univ. and Madras Univ.

# GUJARAT VEPARI MAHAMANDAL (Gujarat Chamber of Commerce)

Ranchhodlal Marg, Post Box No. 162, Ahmedabad.

President: Madhubhai M. Patel; V. President: Bal-krishna Harivallabhdas; Hon. Secy.: Rasiklal V. Vasa.

# HAROLD LASKI INSTITUTE OF POLITICAL SCIENCE

Mavalankar Haveli, Bhadra, Ahmedabad 1.

It is an educational, non-partisan, non-profit-making body, with the aim of development of demoncratic education and enlightened citizenship. The Institute encourages and facilitates the scientific study of political and allied questions and problems. It does not seek any government grant as a matter of principle nor does it take any money from Foreign Foundations. It is supported by individual membership and patronage.

Founder Director: Prof. P. G. Mavalankar.

# INDIAN INSTITUTE OF MANAGEMENT Vastrapur, Ahmedabad 6.

Aims: (i) To provide educational facilities for training young men and women for management careers, and for developing experienced administrators. (ii) To conduct research and to contribute to the growth of knowledge

of business and administration. (iii) To provide for the developments of teachers in management and administration and (iv) To assist organisations to improve

Chairman: S. L. Kirloskar; Director: Prof. Ravi J. Matthai; Secretary: M. K. Subramaniam.

# NATIONAL INSTITUTE OF DESIGN Paldi, Ahmedabad 7.

This Institute is an autonomous non-profit training, service and research centre in design and allied fields sponsored by the Government of India in cooperation with the Ford Foundation and the State of Gujarat.

### OTHER ASSOCIATIONS

Ahmedabad Book Publishers & Sellers Mandal, Bala Hanuman, Gandhi Road, Ahmedabad 1.

Ahmedabad Builders' Association, Gujarat Institute of Civil Engineers and Architects, Law College Road, Ahmedabad 6.

Ahmedabad Building Materials Suppliers' Association, Kadia Naka, Dariapur, Ahmedabad.

Ahmedabad Bullion Exchange Association Ltd., Manek Chowk, Ahmedabad.

Ahmedabad Chemical Merchants' Association, Kapasia Bazar, Ahmedabad.

Ahmedabad Chemical Pottery & Silk Manufacturers Association, C/o Nawroji N. Vakil & Co., Naroda Road, Ahmedabad 2.

Ahmedabad Chemists' Association, Shri Modh Chanapaneri Vanik, Ghati's Wadi, Biscuit Gali, Pankore Naka, Astodia Road, Ahmedabad.

Ahmedabad Colour Merchants' Association, C/o Vithaldas Dhanjibhai Jarecha, Astoria Road, Ahmedabad.

Ahmedabad Commercial Association, Chokha Bazar, Ahmedabad.

Ahmedabad Confectionery Mfg. Owners Association, Old Madhupura, Ahmedabad I.

Ahmedabad Cotton Mahajan, Sakar Bazar, Ahmedabad 2.
Ahmedabad Cotton Merchants' Association, Manek Chowk,
Ahmedabad.

Ahmedabad Cotton Waste Merchants' Association, Cotton Waste Bldg., Relief Road, Ahmedabad.

<sup>\*</sup> See Article on "Population" for area and population figures.

Ahmedabad Cutlery Merchants' Association, C/o P. Liladhar & Co., Kadia Char Rasta, Ahmedabad 1.

Ahmedabad Cycle Merchants' Association, Inside Panchkuva, Ahmedabad.

Ahmedabad Education Society, Lal Bhavan, Bhadra, Ahmedabad 1.

Ahmedabad Electrical Merchants & Contractors' Association, Kapadia Electric Works, Balahunaman, Gandhi Road, Ahmedabad.

Ahmedabad Engineering Manufacturers Association, 2213 B, Surendra House, Gheekanta Road, Opp. Old

Civil Hospital, Ahmedabad 1.

Ahmedabad Factory Owners' Association, Gheekanta Road, Ahmedabad.

Ahmedabad Ghee and Oil Brokers' Association, Narottamdas Bldg., Kapasia Bazar, Ahmedabad 2. Ahmedabad Glass Merchant Association, Below Gandhi

Road Bridge, Ahmedabad 1.

Ahmedabad Grain Merchants' Association, Chokha Bazar, Railwaypura, Ahmedabad 2.

Ahmedabad Hessian Association, Arenda Hall, Kapasia Bazar, Ahmedabad 2.

Ahmedabad Hosiery Factory Owners' Association, 449, Kankaria Road, Ahmedabad 1.

Ahmedabad Hotel Owners' Association, Near G.P.O.,

Mirzapur, Road, Ahmedabad 1.

Ahmedabad Iron, Hardware and Paint Merchants' Federation, 700, Revdi Bazar, Ahmedabad 2.

Ahmedabad Junior Chamber, C/o Himavan Samaj Kalyan Kendra, Near Shanti Kunj Society, Pritamrai Marg, Ahmedabad 7.

Ahmedabad Medical Society, Opp. H. K. Arts College, Ashram Road, Ahmedabad.

Ahmedabad Metal Merchants' Association, Metal House, 435, Jethabhai's Main Pole, Khadia, Ahmedabad 1.

Ahmedabad Mill & Gin Stores Merchants Association, Reid Road, Railwaypura P.O., Ahmedabad 2.

Ahmedabad New Rangati Kapad Mahajan, Rangati Kapad Bazar, Astodia, Ahmedabad.

Ahmedabad Oil Merchants' Association, Kalupur, Chokha Bazar, Ahmedabad 2.

Ahmedabad Paper Merchants' Association, 995, Khadia,

Char Rasta, Ahmedabad. Ahmedabad Pipe Merchants' Assocn., 675, Chinubhai

Bldg., Sakar Bazar, Ahmedabad.

Ahmedabad Printing & Dyeing Association, New Cotton Mill No. 1 Compound, Outside Raipur Gate, Ahmedabad. Ahmedabad Printing Press Association, Purchit Printing Press, Gheekanta Road, Ahmedabad 1.

Ahmedabad Radio Merchants' Association, C/o National Radio Co., Manek Chowk, Ahmedabad 1.

Ahmedabad Sanitaryware Merchants' Association, Praja-

pati Bldg., Khadia Char Rasta, Ahmedabad I. Ahmedabad Share & Stock Brokers Association, Manekchowk, Ahmedabad.

Ahmedabad Shroff Mahajan, Manek Chowk, Opp. Share Bazar, Ahmedabad.

Ahmedabad Small-Scale Non-ferrous Metal Industries Association, 595/12, Kansara Dehla, Railwaypura, Ahmedabad 2.

Ahmedabad Soap Manufacturers' Association, Jeshingbhai Wadi, Gheekanta Road, Ahmedabad.

Ahmedabad Stationery Merchants' Association, C/o Dhirubhai & Sons, Post Office Gali, Khadia, Ahmedabad 1.

Ahmedabad Tea Merchants' Association, Chokha Bazar, Kalupur, Ahmedabad.

Ahmedabad Tiles Mfrs. Association, C/o Maha Gujarat Tiles Co., Panch Kuwa, Ahmedabad.

Ahmedabad Timber Merchants' Association, Sahakari Lati Bazar, Jagannathji Road, Ahmedabad 22.

Ahmedabad Tobacco Merchants' Association, Hathipura, Ahmedabad.

Ahmedabad Trunk & Buckets Factory Owners' Association, 710, Revdi Bazar, Ahmedabad.

Ahmedabad Utensils Merchants' Association, Kansara Dehla, Railwaypura, Ahmedabad.

Ahmedabad Watch Merchants' Association, 723/3, Richev Road, Ahmedabad 1.

Ahmedabad Wholesale Hosiery Merchants' Association. C/o Shah Babubhai Premehand, 230/3, Sakar Bazar, Ahmedabad 1.

Ahmedabad Yarn Merchants' Association, Sakar Bazar. Ahmedabad.

All India Institute of Homeopaths, 25, Shantisadan Society, Ahmedabad.

All India Picker & Textile Leather Manufacturers' Association, P.B. No. 156, Ahmedabad.

Automobile Dealers Association, Lakhia Brothers, Lal Darwaja, Ahmedabad.

Bharat Sadhu Samaj, Ellis Bridge, Sanyas Ashram,

Ahmedabad 6. Blind Men's Association, Near ATIRA, Univ., Campus. Navrangpura, Ahmedabad 9.

Confectionery Mfg. Owners' Association, 155/156, Juna Madhavpura, Ahmedabad.

Darpana, 'Chidambaram', Usmanpura, Ahmedabad 13. (Academy of Dance, Drama, Music, Puppetry & Choreography.)

Electrical Merchants' & Contractors Association, C/o Vinaya Electric Co., Gandhi Road, Ahmedabad 1.

Gujarat Chemical Merchants & Manufacturers Association, Kapadia Bazar, Patel Market, 2nd Floor, Ahmedabad 2. Guiarat Cotton Brokers' Association, Maneck Chowk,

Ahmedabad.

Gujarat Cycle Dealers Association, Panchjumar Darwaja, Ahmedabad 1. Gujarat Dyestuffs Manufacturers' Association, C/o Comet

Dyestuffs P. Ltd., Naroda Road, Ahmedabad 2. Gujarat Glass Merchants' Association, 1754, Opp. Bala

Hanuman, Gandhi Road, Ahmedabad 1.

Gujarat Hair Oil & Perfumery Traders Association, C/o J. B. Shah Co., Pankaj Society, Sarkhej Road, Ahmedabad.

Gujarat Handloom Woollen Industries Assocn., 318/1, Ramanlal Jain Road, Astodia, Ahmedabad.

Gujarat Institute of Civil Engineers & Architects, Law College Road, Ahmedabad 6.

Gujarat Investors' & Shareholders Association, Near Dhanasuthar's Pole, Relief Road, Ahmedabad 1.

Gujarat Mineral Industry Association, 980, Khadia Golwad Naka, Ahmedabad 1.

Gujarat Pipe Traders Association, Lokhand Mahajan Bldg., Nava Darwaja Road, Ahmedabad.

Gujarat Scientific, Surgical Chemical Association, Mehta Estate, Haranwali Pole, Khadia Char Rasta, Ahmeda-

Gujarat State Lorry Owners Association, C/o Shantilal Trikamlal, Outside Raipur Gate, Ahmedabad.

Gujarat Silicate Manufacturers' Association, C/o Dhiraj Chemicals P. Ltd., Odhav, Ahmedabad.

Gujarat Textile Rings Manufacturers' Association, C/o Oriental Tin Factory, Kalidas Mill Compound, Gomtipur Road, Ahmedabad 10.

Indian Pharmaceutical Association, L. M. Coll. of Pharmacy, Ahmedabad 9.

Industrial Estate Factory Owners Association, Bapunagar, Ahmedabad 21.

Institute of Engineers (India), Law College Road, Ahmedabad 6.

Machinery Merchants' Association, 661, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.

Physical Research Laboratory, Navrangpura, Ahmedabad 9.

Re-Rolling Mills Association, Outside Sarangapur Gate, Old Lati Bazar, Ahmedabad 2.

School for Deaf Mutes and for the Blind, Ashram Road, Navrangpura, Ahmedabad 9.

Sheth Bholabhai Jesinghbhai Institute of Learning and Research, Ahmedabad 9.

T. K. Polio Clinic & Physiotherapy Institution, Pritam Nagar, Ellis Bridge, Ahmedabad.

Textile Association (India), Toll Naka, Gandhi Bridge, Ahmedabad 9.

Textile Labour Association, P.B. No. 110, Bhadra, Ahmedabad.

Textile Leather Manufacturers' Association, Post Box 156, Ahmedabad.

Western India Automobile Association, The Cellar, Khanpur, Ahmedabad.

West India Cotton Association Ltd., Cotton Hall, Manek Chowk, Ahmedabad.

### Baroda

CENTRAL GUJARAT CHAMBER OF COMMERCE Federation Bldg., Race Course Road, Baroda 5.

> ENGINEERING RESEARCH INSTITUTE Race Course Road, Baroda 5.

FEDERATION OF GUJARAT MILLS & INDUSTRIES
Race Course Road, Baroda 5.

FEDERATION OF SMALL SCALE & COTTAGE INDUSTRIES

Dadasaheb Haveli, 3rd Floor, Mandvi, Baroda.

GUJARAT OPTICAL MANUFACTURERS'
ASSOCIATION
Mangal Bazar, Baroda.

GUJARAT SOAP MAKERS' ASSOCIATION C/o Shree Krishna Industries, Pratapnagar Road, Baroda 4.

ORIENTAL INSTITUTE
Smt. Hansa Mehta Library Building, Tilak Road,
Baroda.

TEXTILE & ALLIED INDUSTRIES RESEARCH ORGANISATION (TAIRO) Kala-Bhavan Premises, Baroda.

### Bhavnagar

BHAVNAGAR IRON & STEEL MERCHANTS ASSOCIATION

Iron Bazar, Bhavnagar.

BHAVNAGAR SMALL INDUSTRIES ASSOCIATION Darbargadh, Bhavnagar.

SAURASHTRA CHEMICAL MANUFACTURERS ASSOCIATION

Drug Laboratory, Darbargadh Road, Bhavnagar.

SAURASHTRA CHAMBER OF COMMERCE Darbargadh, Bhavnagar.

#### Broach

The Broach Red Cross Society, Near Tower, Broach; Bharat Sevak Samaj, Jawahar Bazar, Broach; Broach Education Society, Jawahar Bazar, Broach; Broach Sad Vidya Mandal, Jawahar Bazar, Broach; The Broach Jilla Vidyarthi Sahayak Mandal, Lallubhai Chakla, Broach.

# THE BROACH CHAMBER OF COMMERCE & INDUSTRIES

Lallubhai Chakla, Broach.

### Jamnagar

GUJARAT AYURVED UNIVERSITY P.O. Box No. 511, Jamnagar.

Chancellor: C. M. Trivedi; Vice-Chancellor: Mohanlalji P. Vyas; Registrar: Dinkar Rai Joshi.

GUJARAT WOOL MERCHANTS ASSOCIATION Post Box 122, Jamnagar.

JAMNAGAR FACTORY OWNERS' ASSOCIATION Santosh Nivas, Silver, Market, Jamnagar.

NAWANAGAR CHAMBER OF COMMERCE Chamber Hall, Grain Market, Jamnagar.

INDUSTRIAL INFORMATION CENTRE
(An organisation of Nawanagar Chamber of Commerce)
Chamber Hall, Jamnagar.

# SHARDA PEETH Dwarka.

Pontifical seat established for spiritual and cultural guidance and uplift in Western India, by the first Jagadguru Shankaracharya the Great.

Head: H. H. Jagadguru Shri Shankaracharya Shri Abbinava Sachchidananda Tirth Swamiji.

# Junagadh

JUNAGADH CHAMBER OF COMMERCE Mahalaxmi St., Junagadh.

PORBANDAR CHAMBER OF COMMERCE
Manekchowk, Porbandar.

# Kaira

THE KAIRA DISTRICT CO-OPERATIVE MILK PRODUCERS' UNION LTD.

Anand (W. Rly.).

This Co-operative Union daily collects 3,93,700 kgs. of milk in winter and 2,90,600 kgs. of milk in summer from its 610 affiliated village societies. Out of this 100,000 kgs. of milk are daily sent to the Bombay Milk Scheme Bombay and after meeting local requirements, the remaining quantity of milk is converted into Amul Butter, Whole Milk Powder, Amul Sweetened Condensed Milk, Amul Ghee, Casein, Amul Cheese, Amul Milk Food for Babies and Amul Spray.

Through its extension service the Union provides veterinary aid by running 16 Mobile Veterinary Dispensaries, helps village cooperatives to run 415 Artificial Insemination Centres, provides help to exercise better Quality Control and to take up Fodder Development activities. Total turnover of the Union in the year 1968-69 was Rs. 24,20,00,000.

## OTHER INSTITUTIONS

American Methodist Mission Hospital, Nadiad; Government Agriculture Institute, Anand; The Mahagujarat Ayurvedie Hospital, Nadiad; Hindu Anathashram, Nadiad; Vithal Kanya Vidyalaya, Nadiad; Dhuvaran Thermal Station, Dhuvaran.

THE CHAMBER OF COMMERCE BBZ-N-41, Gandhidham.

### Mehsana

ISABGOL MANUFACTURERS' & EXPORTERS' ASSOCIATION

Bindu Sarowar Road, Sidhpur.

KALOL SMALL INDUSTRIES ASSOCIATION Navjivan Road, Kalol.

# Panch Mahals

Panchmahals Chamber of Commerce, Station Road, Godhra; Nari Samrakshan Kendra, Civil Lines Area, Godhra; Shreyas Education Society, Laxminarayan Trust Building, Godhra.

### Rajkot

MORVI CHAMBER OF COMMERCE & INDUSTRIES Cotton Association Hall, Near Darbargadh, Morvi.

THE SAURASHTRA OIL & OILSEEDS ASSOCIATION LTD.

Commercial Chamber, Rajkot.

### Surat

Sarvajanik Education Society, Anath Mahajan Balashram, Katarigam, Union Education Society, Shri Tap. Brahmacharyashram Sabha, Laldarwaja, Surat Education Society, Navyug Kelavani Mandal.

> JEEVAN BHARATI Greenlands, Nanpara, Surat.

Recognised by the Government of Gujarat as a multipurpose school.

> SOUTHERN GUJARAT CHAMBER OF COMMERCE & INDUSTRY Samruddhi, Nanpura, Surat 1.

THE SURAT JARI GOODS PRODUCERS' CO-OPERATIVE SOCIETY, LTD.
Taj Manzil, opp. Tower, Surat.

THE SURAT VANKAR SAHAKARI SANGH LTD. Kinkhabwala Wadi, Begampura, Surat.

> THE SURAT WEAVING ASSOCIATION Limda Chowk, Lokhandwala Bldg., Mahatma Gandhi Road, Surat.

## Surendranagar

SAURASHTRA GINNING AND PRESSING FACTORIES ASSOCIATION C/o Dhrangadhra House, Surendranagar.

SAURASHTRA MILLOWNERS' ASSOCIATION Dhrangadhra House, Surendranagar.

SHRI ZALAWAD CHAMBER OF COMMERCE AND INDUSTRIES
Main Bazar, Surendranagar.

### ADMINISTRATIVE PERSONNEL

Gandhinagar.

# Governor

Shriman Narayan

### Ministers

Chief Minister, in charge of General Administration, Planning, Home, Information and Industrial Policy, Hitendra Desai.

Panchayat, Community Dev. Projects, Co-operation,

Agriculture, Forests and Sarvodaya, Thakorebhai M. Desai.

PWD, Civil Supplies and Electricity, Babubhai J. Patel.

Finance and Industries, Jashwant M. Mehta.

Education and Municipalities, Gordhandas R. Chokhawala.

Health, Fisheries and Jails, Fatehsinhrao P. Gaekwad.

Revenue, Law and Judiciary, Ports, Accommodation Control, Printing and Stationery, Gold Control and Repatriates from Mozambique, Burma, E. Africa and Zanzibar, Premjibhai B. Thakkar.

Labour, Social Welfare, Prohibition, Excise, Rehabilitation and Housing, Shantilal R. Shah.

Road Transport, Parliamentary Affairs, Public Relations, Sports and Cultural Activities, Chimanbhai J. Patel.

### Deputy Ministers

Agriculture, Panchayat, Community Development Projects, Co-operation and Sarvodaya, Madhavlal B. Shah; Public Works (excluding Irrigation) and Health, Mrs. Urmilabon P. Bhatt; Home, Information, Irrigation, Electricity and Civil Supplies, Jayram A. Patol; Revenue, Shantilal S. Shah; Social Welfare, Prohibition and Excise, Himatbhai M. Rajwadi; Forest, Road Transport, Parmananddas J. Oza; Parliamentary Secretaries to the Chief Ministries, A. A. Mirza, V. C. Shah.

### Secretariat

Chief Secretary, L. R. Dalal, I.C.S.; Addl. Chief Secretary & Secretary, Finance, M. D. Rajpal, I.A.S.; Secretary, Panchayat and Health, K. N. Zutsi; Secretary, Finance, V. B. Eswaran; Secretary, Agriculture and Cooperation, K. G. Badlani, Secretary, Revenue, S. M. Dudani; Secretary, Civil Supplies, M. G. Shah; Secretary, Public Works, K. Shiyraj; Secretary, Industries, Mines and Power, S. M. Ghosh, Secretary, Education and Labour, V. R. Mehta, Secretary, Law and Judiciary, K. M. Satwani,

### Principal Officials

Director of Agriculture, Dr. G. A. Patel; Director of Public Health & Medical Services, Dr. T. B. Patel; Director of Transport, H. S. Chhaya; Inspector-General of Prisons, V. R. Patel; Director of Education, P. R. Chauhan, I.A.S.; Director of Technical Education, P. S. Kalvachwala; Commissioner of Industries, M. Sivagnanam; Director of Information, Tourism and Examiner of Books and Periodicals, M. H. Shah; Director of Prohibition, V. R. Patel; Director of Social Welfare, G. B. Thakkar; Director of Fisheries, K. V. Navathe; Director of Bureau of Economics and Statistics, P. B. Buch; Director of Ports, P. J. Dake; Director of Drugs Control, Dr. B. V. Patel; Director of Cottage

HARYANA

Industries, Registrar of Co-Societies and Registrar of Money Lenders, H. M. Joshi; Chief Conservator of Forests, R. D. Joshi; Director of Employment Exchange and Commissioner of Labour, S. J. Shah; Commissioner of Sales Tax, R. K. Anklesaria; Chief Inspector of Factories, R. P. Patel; Inspector-General of Police, K. S. Pavri, I.P.; Commissioner of Police, Ahmedabad, E. F. Deboo, Vigilance Commissioner, M. G. Monani, I.C.S.; Director of Animal Husbandry, Dr. D. K. Desai.

# Stationary Bodies

Chairman, State Fertilizer Co. Ltd., Ambika Nivas, Ashram Road, Ahmedabad, Jaykrishna Hari Vallabhdas; Chairman, Gujarat Public Service Commission, Multi-Storeyed Bldg., Ahmedabad 1, Fateh Ali Palejwala; Chairman, Gujarat State Electricity Board (Race Course, Baroda), S. T. Raja; Chairman, Gujarat State Housing Board (New Civil Hosp. Bldg. Annexe, Ahmedabad 16), V. C. Mehta; Chairman, Gujarat State Road Transport Corporation (Jaldarshan, Ahmedabad 9), Bhailal J. Contractor.

427

# High Court Ahmedabad

Chief Justice, P. N. Bhagwati; Judges, B. J. Divan, N. K. Vakil, J. B. Mehta, M. U. Shah, N. G. Shelat, Akbar S. Sarela, A. D. Desai, J. M. Sheth, V. R. Shah, Addl. Judges: D. A. Desai, S. N. Patel, S. H. Sheth, D. P. Desai, Y. D. Desai, M. P. Thakkar, T. U. Mehta.

Registrar, M. C. Trivedi

# HARYANA

A REA: 43,869 square kilometres. It has an annual budget of approximately Rs. 80 crores. It has only one division, seven small districts, 27 tehsils 62 towns and about 7,039 villages. It is essentially a rural State with a population of 75,90,543 of which 13,07,680 are in urban areas.

Districts: Ambala, Karnal, Rohtak, Gurgaon, Mohindergarh, Hissar & Jind. (For figures of area and population, see under the respective districts under composite Punjab in the main article on "Population").

Its Legislative Assembly consists of only 81 members. It is being represented by five members in the Rajya Sabha and by nine in the Lok Sabha.

Rainfall is comparatively low and erratic, soil is sandy and light in texture, and above all, there is paucity of sub-soil water and in a large number of tracts it is brackish.

There are no mineral resources except in Mohindergarh. The area is frequently visited either by heavy floods or by serious droughts.

### **ECONOMY**

There are six cotton textile mills in Haryana located at Bhiwani, Hissar, Faridabad and Rohtak. Two sugar factories at Rohtak and Panipat were added to the existing one at Yamunanagar. There are three paper mills and two cement factories.

There are a shoe factory, five large-scale cycle assembling and cycle components units and eight rerolling mills, besides more than 2,000 units engaged in the manufacture of agricultural implements, machine tools, electric goods and bolts and nuts. There are two tractor manufacturing and one motor cycle manufacturing units.

## **INDUSTRIES**

Number of registered working factories (Jan. 1969): 1,240; No. of working factories: 1,200; No. of workers engaged in the registered factories: 64,600.

Production of important industries in the State (1967-68):—Cotton textiles worth Rs. 17,91,26,000; Cement: 5,23,336 tonnes; Paper: 43,192 tonnes; Sugar: 53,752 tonnes; Cycles: 3,79,000; Sewing Machines: 30,587; Agricultural implements and machine tools worth Rs. 481 lakhs; Steel rerolling: 15,905 tonnes; Scientific instruments worth Rs. 1,35,71,000; Wood and machinery screws worth Rs. 6,17,000; Glass worth Rs. 18,019,000; Woollen textiles worth Rs. 13,50,000.

### AGRICULTURE

Total area of Haryana according to village records pertaining to agricultural year 1968-69: 43,99,000 hectares as per details given below:—

Area under forests: 93,000 hectares; area not available for cultivation: 4,89,000 hectares; Other non-cultivated land excluding fallow land: 1,37,000 hectares; Fallow land: 2,59,000 hectares.

Net area sown: 35,24,000 hectares; Area sown more than once: 16,36,000 hectares; Total cropped area: 51,50,000 hectares.

As much as 89 per cent of the people living in rural areas in the State are dependent on agriculture.

The production of foodgrains during 1968-69 was 31,00,000 tonnes; Sugar cane 6,20,000 tonnes, oil seeds 85,000 tonnes and cotton 3,35,000 bales.

The targets of agricultural production fixed for the year 1970-71 are as follows:—

Foodgrains 43.70 lakh tonnes; Sugar cane: 8 lakh tonnes; Oil seeds: 1.30 lakh tonnes and cotton 4.25 lakh bales. Intensive cultivation programme of cotton, rice, maize, oil seeds, and bajra has been launched. The coverage of blocks during 1968-69 was cotton: 15 blocks; rice nine blocks, oil seeds 13 blocks, bajra two blocks and wheat 34 blocks.

At the close of the year 1968 the total number of agricultural credit societies in the State was 7,000 with a membership of  $5\cdot50$  lakhs and working capital of various categories of Co-operative Societies was Rs. 57 crores.

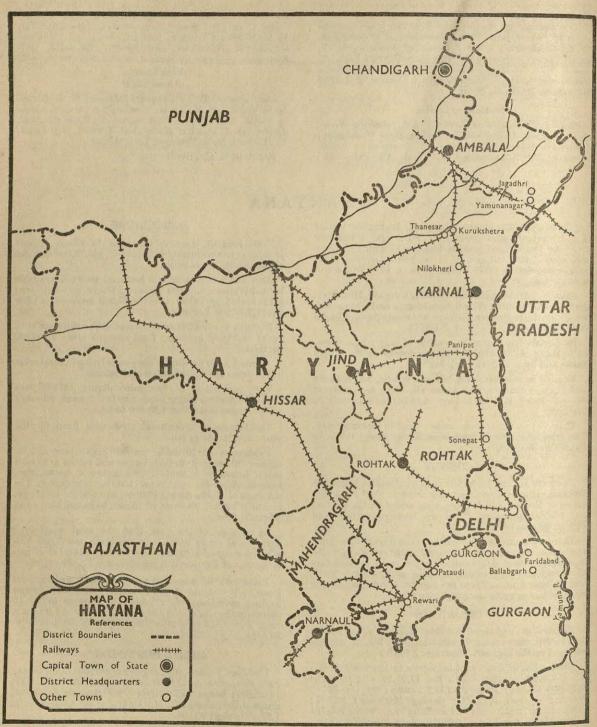
These societies advanced short-term and medium-term loans to the extent of Rs. 10 crores during 1968-69 and lending operations are expected to increase to Rs. 15 crores by the end of the 4th Five Year Plan. In Haryana there were 2,016 regular fertilizer depots in the year 1968-69 supplying fertilizers.

### ANIMAL HUSBANDRY\*

Livestock (census 1961): number of animals in the State: 49,34,000; cattle other than bullocks: 22,47,900; bullocks: 16,53,900; horses and ponies: 17,400; donkeys: 80,100; mules 6,500; sheep: 3,344,000; goats: 3,62,300 camels: 1,22,500; pigs: 90,600.

The State has 140 veterinary hospitals and 98 veterinary dispensaries, 320 first aid centres have also been set up.

<sup>\*</sup> Livestock statistics (1966 census) are not available.



"Based upon Survey of India map with the permission of the Surveyor-General of India."

" Govt. of India Copyright 1963"

HARYANA 429

The State has a big and modern livestock farm at Hissar at which systematic and scientific breeding of cattle, buffaloes, sheep, goats, donkeys, pigs etc. is undertaken.

The State is famous for two breeds of cattle and buffaloes namely Haryana and Murrah.

### LAND REFORMS

The 102·22 lakh acres of land to be consolidated in the State have been consolidated by the end of 1967-68.

The Haryana Government has passed a legislation abolishing land revenue upto 5 acres in the State on Aug. 23, 1967. This will cause an annual loss of Rs. 14 lakes to the exchequer.

### IRRIGATION

According to the village papers, the total area of Haryana State is 43,99,000 hectares of which net area sown was 34,23,000 hectares in the year 1967. At that time only 12,93,000 hectares were under irrigation of which 9,91,000 acres were irrigated by government canals, 2,28,000 by wells and 74,000 by other sources including tanks.

Haryana is one of the three participating states in the two multi-purpose river valley projects known as the Bhakra and the Beas River projects.

In addition to these projects, the Haryana Government is negotiating for an equitable apportionment of available water in the Ravi and Beas rivers. Haryana will also have a share in the schemes of Kishau Dam on the river Yamuna and Thein Dam on the river Ravi as and when the projects are executed.

While Bhakra project is complete, Beas project is at an advanced stage of completion.

The state has also prepared its own irrigation schemes known as Gurgaon Canal Project, Western Yamuna Canal feeder, Western Yamuna Canal remodelling, Rewari Lift Irrigation scheme, Dadri Lift Irrigation scheme, Nehar Salwas Lift Irrigation scheme, Installation of tubewells along Ghaggar river and Western Yamuna Canal tract and Link works from Sutlej basin to Western Yamuna Canal basin.

The proposed outlay for the Fourth Five-Year Plan on minor irrigation and power schemes for 1968-69 was Rs. 12,85.50 lakhs.

A provision of Rs. 500 lakhs for flood control drainage and anti-water logging schemes and Rs. 71 lakhs for soil conservation schemes has been made in the Fourth Five-Year Plan.

## **ELECTRIC POWER**

Considerable progress was made in the completion of the Right Bank Power House of Bhakra Nangal Power System during 1968-69. This power house has five units. Five units of 90 M.W. each of the Left Bank Power Project of Bhakra were commissioned long time ago. All the five units of 120 M.W. each on the Right Bank Power House have since been commissioned, the total installed capacity of Bhakra system ending 1968-69 being 930 M.W. The work on the Beas Project is progressing according to schedule. Power from this project is likely to become available after the Fourth Plan

In addition to the above schemes, work was also in progress on the following generating schemes during 1967-68: (i) Bassi Power House (Uhl Project Stage 2); ii) U.B.D.C. and 15 KW thermal station, Faridabad.

At present the State is getting 665 million units of power from Bhakra, 220 million units from I.P. station and 56 million units from 15 M.W. thermal plants,

As many as 45,370 tubewells were energised during the year 1968-69. The number of villages electrified increased to 1,459 in the year 1968-69. The position of other connections during the year 1968-69 was: domestic: 3,80,376, commercial: 67,326 and industrial 12,528.

#### TRANSPORT

There are about 5,638 kilo metres of metalled roads in Haryana. Government has decided to nationalise all road transport by 1970-71.

The state transport known as the Haryana Roadways has a fleet of 639 vehicles. These vehicles operate on 290 routes, cover a mileage of 81,043 miles daily and carry about 1,16,800 passengers per day.

### LABOUR

Number of registered factories in the State: 1,224; number of workers in these factories: 64,564.

Employees Provident Fund scheme has been enforced in the State. Employees State Insurance scheme, which was enforced in 1963, covers nearly 50 per cent of the workers.

### **EDUCATION**

Number of students (boys and girls) receiving education in government and private schools in 1968-69 in Haryana was 11,99,201. Total number of institutions in the State was 5,881.

A provision of Rs. 1,303 lakhs has been made for the development of general education during the Fourth Planperiod. Of this Rs. 220 lakhs were proposed to be spent during the year 1968-69.

To increase enrolment at all stages and to cope with additional enrolment, 200 primary schools were upgraded to middle standard and 120 middle schools to high standard. About 2,000 additional posts of teachers were created at the school stage and 71 posts of lecturers for government colleges.

# HEALTH

285 hospitals with 5,064 beds and 124 dispensaries of sub-centres under each primary health centre are functioning in both rural and urban areas of the State. Seven hospitals at Kaithal, Panipat, Rewari, Sonepat and Hissar were upgraded in 1967–68. The bed strength at Jind and Narwana was raised to 50 and 29 respectively and that of Ambala and Karnal to 200 each. Twenty allopathic dispensaries have been converted into ayurvedic dispensaries due to shortage of qualified doctors.

There are 91 family planning clinics in the State. As many as 16,689 sterilization operations were performed and 58,061 I.U.C.D. insertions made.

At present there are 26 Family Planning clinics in rural areas and eight in urban areas. It is proposed to have 3,33,334 loop insertions and one lakh vesectomy operations during the Fourth Plan period.

Malaria has been fully controlled in the State under the National Malaria Control programme. For the control of tuberculosis stress is being made on preventive immunization against T.B. and early diagnosis and treatment. With a view to eradicating small-pox, primary vaccination has been made compulsory in the State.

There is a Medical College at Rohtak with an intake capacity of 50 students.

## **CO-OPERATION**

The total membership of all types of societies on November 1, 1968 stood at 9,18,756. Considering that one member represents a family of five members, 80 per cent of the total population is within the co-operative fold. The working capital of 10,076 societies of all types was Rs. 6,54,026.

### **PANCHAYATS**

There are 7,039 villages in the State. These are covered by 4,595 Panchayats at village level, 82 Panchayat Samitis at block level and six Zila Parishads at district level. The Zila Parishad, Jind is yet to be constituted.

The separation of the Judiciary from the executive was formally inaugurated on October 2, 1964.

### FOURTH PLAN

The Planning Commission had fixed the State's plan outlay at Rs. 225 crores. The Central assistance for the Plan is Rs. 78 crores.

Though a sector-wise division of the total outlay has yet to be fixed, power and irrigation would be given top priority, allocation for power alone being Rs. 80 crores.

It is expected that next year's Plan would be Rs. 40 crores — the highest after the formation of the State.

# HARYANA AGRICULTURAL UNIVERSITY

(Hissar)

Chancellor: Governor of Haryana; Vice-Chancellor: A. L. Fletcher.

The University has programmes of resident instruction (teaching), research and extension education. The University follows the trimester system, as in the Land Grant Universities in the United States.

Present Constituent Colleges: (a) College of Agriculture, (b) College of Animal Sciences, (c) College of Veterinary Medicine and (d) College of Basic Sciences and Humanities,

Degrees Awarded: B.Sc. (Agr.), B.Sc. (Animal Science), and B. V. Sc. & A. H.

Research: Research is coordinated on HAU's first-rate animal farm and a 1,600 acre crop farm at Hissar and HAU's four regional research stations at Gurgaon, Karnal, Rohtak and Yamunanagar. Research programmes of all departments of HAU are coordinated by a Director of Research.

Extension Education: Dissemination of technical knowhow based on research findings is coordinated by a Director of Extension Education through three services, (a) a Farm Advisory Service, (b) a Farm Information Service and (c) a Farm Training Service.

# KURUKSHETRA UNIVERSITY

Kurukshetra.

It is a teaching-cum-residential University for the encouragement of higher education and research especially in Sanskrit, Prakrits and modern Indian languages as also in Indian Philosophy and ancient Indian History and other aspects of Indology.

Chancellor: Governor, Haryana State; Vice-Chancellor: S. K. Dutta; Registrar: Dr. S. S. Gupta.

Number of Constituent Colleges: Two; Number of Recognised Colleges: Two.

## Budget Estimates for 1968-69

Total Income: Rs. 73.21 lakhs; Total Expenditure: Rs. 85.83 lakhs.

# ASSOCIATIONS

FARIDABAD INDUSTRIES ASSOCIATION New Industrial Township, Faridabad.

HARYANA CHAMBER OF COMMERCE & INDUSTRY 324-B, Model Town, Ambala City.

MANUFACTURERS' ASSOCIATION Sonepat.

SCIENTIFIC INSTRUMENTS MANUFACTURERS & DEALERS' ASSOCIATION
Hargolal Road, Ambala Cantt.

### ADMINISTRATIVE PERSONNEL

Chandigarh

(Chief Commissioner, Chandigarh, B. P. Bagchi).

# Governor B. N. Chakravarty

### Ministers

Chief Minister in Charge of Gen. Adm., Adm. of Justice, Vigilance, Bansi Lal.

Finance, Planning, Excise & Taxation, Legislative and Parliamentary Affairs, Smt. Om Prabha Jain.

Home, Jails, Sports, Tourism and Civil Aviation, Kanhaiya Lal Poswal.

Health, Local Government, Housing, Elections and Wakf, Khurshed Ahmed.

Public Works, Architecture, Colonization, Town & Country Planning and Tech. Edn., Ran Singh.

Irrigation & Power, Ram Dhari Gaur.

Transport, Animal Husbandry, Dairying and Fisheries, Rao Mahabir Singh.

Industries, Abdul Gaffar Khan.

Education, Maru Singh Malik.

Labour & Employment, Printing & Stationery, Industrial Training, Harpal Singh.

Food & Supplies and Cultural Affairs, Rajinder Singh. Revenue, Rehabilitation and Consolidation, Neki Ram. Development & Panchayats, Cooperation, Sarup Singh.

Agriculture, Forests, Wild Life Preservation, Bhajan Lal.

Public Health, Social Welfare, Welfare of Scheduled Castes & Backward Classes, Parbhu Singh.

#### OFFICIALS

Chief Secretary, Saroop Krishen, I.C.S.; Financial Commissioner, B. S. Grewal, I.C.S.; Commissioner for Revenue, Damodar Das, I.A.S.; Home Secretary, M. L. Batra, I.A.S.; Secretary, Planning and Finance, Ishwar Chandra, I.A.S.; Secretary, Transport, Tourism, Food and Supplies, S. K. Chhibber, I.A.S.; Secretary, Panchayats, Cooperation, Agriculture, Animal Husbandry, Fisheries and Wild Life Preservation, Sube Singh, I.A.S.; Secretary (Irrigation and Power), Education, Health, Languages, Local Govt.

and Housing, B. L. Ahuja, I.A.S.; Secretary, Social Welfare, Welfare of Scheduled Castes and Backward Classes and Printing and Stationery, Labour & Employment, H. S. Achreja; Director of Industries, L. C. Gupta; Director, Food & Supplies, J. D. Sharma; Director, Public Relations, Ram S. Verma; Provincial Transport Controller, Hoshiar Singh; Inspector General of Police, J. C. Vachher; Director of Health Services, Dr. P. R. Sondhi; Director, Public Instruction, D. I. Lall; Chairman, Public Service Commission, Darbari Lal Gupta; Director of Agriculture, Gurmel Singh Sidhu.

# HIMACHAL PRADESH\*‡

CAPITAL: Simla. Area: 56,019 sq. Km.; Population: 2.81 million (1961 census); Strength of Vidhan Sabha 63.

The Territory of Himachal Pradesh is divided into ten districts, viz.: Kinnaur, Simla, Sirmur, Bilaspur, Kangra, Lahaul-Spiti, Mandi, Kulu, Mahasu and Chamba.

## **ECONOMY**

The main agricultural wealth of the Territory consists of fruits such as apple, apricot, peach and vegetables like seed potato, ginger, tomato, peas etc.

The climatic conditions of the Pradesh are suitable for the growing of a large variety of fruits including citrus, and dry fruits. Apples and pears are grown in the cooler regions. The superior varieties of apples which were restricted to Kotgarh and Kotkhai are now being grown extensively in the other parts of the Pradesh ranging between fivethousand to eight thousand feet above sea level. With the new orchards rapidly coming up, the production of fruit increased considerably during the 3rd Five Year Plan.

Salt is another important item; while forests yield timber, fire-wood and charcoal. Handierafts which include Pashmina shawls, wool of fine quality, resin, herbs and skins are another source of income.

Himachal Pradesh forests supply the largest quantities of coniferous timber in Northern India. They are the main source of revenue in the Territory, the estimated revenue during 1969-70 being Rs. 6·10 crores. The entire Territory is divided into eight forest circles which are further subdivided into 30 territorial divisions. Besides, 7 other divisions have been created to develop the resources of the Territory. Bilaspur Circle has been created under the Soil Conservation Scheme.

Seed potato is the chief cash crop in which the Territory has established itself as an important supplier to the plains of India. During 1969-70, 75,000 metric tonnes of potato is estimated to be produced over an area of 13,770 hectares.

One of the oldest foundries of the country is located at Nahan besides two resin and turpentine factories.

### Agriculture

Geographical area and classification in thousand hectares 1966-67: 5,566; Forests: 1,014; Area put to non-agricultural uses 175; Barren & Noncultivable land 2,233; Permanent pastures and other grazing land 1,543; Land

under trees and groves 39; Culturable waste land 134; Fallow lands 60; Net area sown 534; Total cropped area 869; Area sown more than once 335; Net area irrigated 90; Gross area irrigated 150.

Food grains in 1968-69: Area & Production in thousand hectares & thousand tonnes respectively: Rice  $97\cdot4$ ;  $110\cdot3$ ; Maize  $255\cdot8$ ;  $436\cdot5$ ; Ragi  $13\cdot8$ ;  $6\cdot9$ ; Small Millets  $27\cdot2$ ;  $14\cdot7$ ; Wheat  $311\cdot1$ ;  $262\cdot8$ ; Barley  $41\cdot0$ ;  $46\cdot2$ ; gram  $18\cdot5$ ;  $8\cdot5$ ; Tur  $0\cdot2$ ;  $0\cdot1$ ; Other pulses  $38\cdot7$ ; 11.7; Total food grains  $803\cdot8$ ;  $897\cdot7$ .

Oil seeds:  $3 \cdot 3$ ;  $3 \cdot 3$ ; Sesamum  $7 \cdot 6$ ;  $1 \cdot 7$ ; Rapeseed & Mustard  $3 \cdot 8$ ;  $1 \cdot 0$ ; Linseed  $5 \cdot 1$ ;  $1 \cdot 0$ .

Cotton: 0.8; 1.1†; Cottonseed 0.2; 0.4; Sannhemp 0.7; 0.1; Tobacco 0.9; 0.3.

Others: Potato 20; 83.3.

Under the Rs. 139·20 crores revised draft Fourth Plan as submitted to Planning Commission for approval, roads and transport have been given top priority with Rs. 32 crores; power projects come next with Rs. 21 crores 9·43 lakhs. A sum of Rs. 18 crores 40·32 lakhs has been earmarked for agriculture and Rs. 15·75 crores for forests. Industries, Education, Medical and Public Health, Animal Husbandry, Panchayats, Cooperation and Community Development have been allotted Rs. 30 crores 53·64 lakhs.

Power—The Department of Multipurpose Projects & Power started functioning in April, 1964 to investigate the vast hydroelectric potential of H.P. Besides this, the Department is also required to deal with problems connected with soil conservation and flood control.

Work on Giri Hydro Electric Project, the first in the series of power projects to be taken up on Himachal waters by the Pradesh Government has already been started with the inauguration of the first stage of the project by the Prime Minister of India, on June 30, 1967.

Giri Hydro Electric Project has been designed in two stages in all generating 2.01 lakh kW. of electric energy besides providing irrigation facilities to 13,000 acres of land in the fertile Paonta valley in Sirmur district.

All five rivers—the Chenab, the Ravi, the Beas, the Sutlej and the Yamuna—flow through the Territory. It is estimated that the Government can have an annual income of Rs. 200 crores once Himachal's vast forest, hydel and mineral resources are fully exploited.

<sup>\*</sup> See article on "Population" for population and area of districts. † Production in thousand bales of 180 kgs. each. ‡ The Prime Minister announced in the Lok Sabha on July 31, 1970 that the Government has decided to grant full statehood to Himachal Pradesh and that a Bill will be introduced in the Parliament as early as possible. H.P. will thus be the 18th State.

### ADMINISTRATIVE PERSONNEL

Headquarters, Simla 2.

# Lt. Governor Lt. Gen. K. Bahadur Singh

Ministers

Chief Minister, in charge of General Administration, Home and Vigilance, Planning, Publicity and Tourism, Y. S. Parmar; Finance, P.W.D. and M.P.P. and Law, Karam Singh; Revenue, Medical and Public Health and Welfare, Lal Chand Prarthi; Forests, Industries and Elections, Padma Dev; Transport, Panchayats and Local Self Govt., Hari Ram Chaudhry; Education, Civil Supplies and Cooperation, Ram Lal; Development, Agriculture, Animal Husbandry, Excise & Taxation, Sukh Ram.

Deputy Ministers

Publicity, Tourism, Civil Supplies and Cooperation, Excise and Taxation, Nek Ram Negi; Agriculture, Development, Medical and Public Health, Daulat Ram Sankhian; Local Self Govt., Forests and Panchayats, Wazir Kartar Singh; Industries, Animal Husbandry and Law, Mehnga Singh; Welfare, P.W.D. and M.P.P. and Elections, Vidya Dhar.

Secretariat

Chief Secretary and Secretary, Apptt. Confidential and Cabinet, Administrative Reforms, Secretariat Adm.,

General Adm., Vigilance, Public Relations, Transport, Civil Supplies and Plang., K. N. Channa, I.A.S.; Financial Commissioner and Secretary, Revenue, Excise and Taxation, Public Works and Tech. Education, U. N. Sharma, I.A.S.; Commissioner, Revenue & Land Reforms and Secretary, Land Reforms, Medical and Public Health, Welfare, Panchayat and Edn.; H.R. Mahajan, I.A.S.; Finance Secretary and Secretary, Tourism, P. R. Mahajan; Judicial Secretary and Secretary, Law, Local Self Government, Elections, Relief & Rehabilitation, Legal Remembrancer, and Legislative Business, D. B. Lall; Devpt. Commissioner and Secretary, Devpt., Agriculture, Animal Husbandry, Fisheries, Cooperation, Industries, Forests and Additional Secy., Planning, and Economics & Statistics, P. K. Mattoo, I.A.S.; Secretary to Lieutenant Governor and Secretary, Border Devpt., H. R. Mahajan, I.A.S.; Director of Health Services, Dr. K. Swarup; Chief Conservator of Forests, Bachan Singh; Director of Education, Miss K. Pasricha; Director of Animal Husbandry, G. C. Negi; Director of Agriculture, Dr. B. S. Jogi; Inspector General of Police, B. S. Yadav, I.P.S.; Director of Economics & Statistics, R. N. Pandey; Director of Public Relations, H. K. Mittoo; Director of Fisheries, R. P. Asotra; Inspector General of Prison, S. K. Alok.

# JAMMU AND KASHMIR STATE

CAPITAL: Srinagar. Area: 2,22,870 sq. kms.; Population: 35.61 lakhs (1961 census).

The area of 2,22,870 sq. kms. includes territories illegally occupied by China and Pakistan. The population, on this side of the cease-fire line according to 1961 census is 35,60,976; male 18,96,633; female 16,54,343.

The State has a Legislative Assembly and Legislative Council.

The State is divided into 10 districts, viz. Srinagar, Anantnag, Baramulla, Ladakh, Jammu, Udhampur, Kathua, Doda, Poonch and Rajouri.

The State is multi-lingual in character. Different dialects in different areas are spoken. Commonly spoken are, Kashmiri, Dogri, Balti, Dardi (Pali), Punjabi, and Bodhi. Urdu is the official language of the State. English is used as a medium of official correspondence and medium of instruction at University level.

### AGRICULTURE

Agriculture is the main occupation of the people. More than 80 per cent of the population depends on it. Paddy, wheat and maize are the main crops grown in the State except in Ladakh where gram is grown. Besides, Jawar and Bajra are also grown in some parts of the Jammu region.

The total area in the State under crops is estimated at 21,22,000 acres. The total irrigated area during the Third Plan period covered more than 7.73 lakh acres. An additional area of 1.7 lakh acres is proposed to be covered during the Fourth Five Year Plan.

The area (in '000 acres) under High-yielding Varieties Programme during the year 1968-69 was as follows:—Wheat 90; Paddy 200; Bajra  $4\cdot50$ ; Maize 15; Oilseeds 1.

Food production during the Third Plan period was 7.76 lakh tonnes and during the year 1968-69 it was 6.89 lakh tonnes. Distribution of chemical fertilizers to the peasants

for increasing productivity of the soil is receiving due attention of the Government. Upto Kharif 1968 10,10,270 quintals of fertilizers have been distributed to the cultivators in the State.

## IRRIGATION

Out of the total area sown in the State only 41 per cent receives irrigation. Of this 70 per cent is fed by Zamindari Khuls. The importance of this source of irrigation is even more significant in the case of Kashmir valley where out of a total net irrigated area of  $4\cdot61$  lakh acres,  $3\cdot92$  lakh acres or 85 per cent are dependent on these Zamindari Khuls.

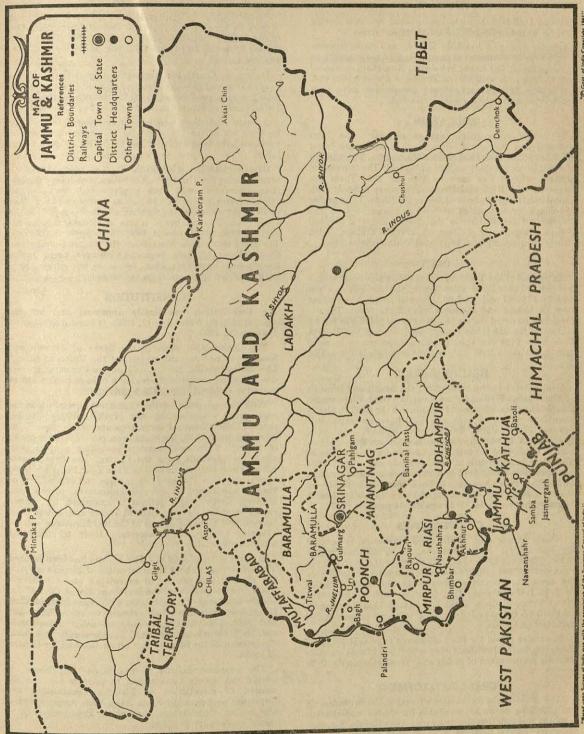
## INDUSTRIAL DEVELOPMENT

Both the big and small industrial units are coming up in the State. There are at present 25 medium and large-scale units in the State. Of these 21 fall in the public sector. Eighteen units are being administered by the two Corporations, namely, the Jammu and Kashmir Minerals Ltd. and the Jammu and Kashmir Industries Ltd.

There are also two factories, one each at Srinagar and Jammu which are directly under the control of the Central Government. Six hundred and sixty-two units have been registered till March 31,1968 by the Industries Department. These units function with a capital investment of Rs. 229·27 lakhs and provide employment to 4,391 persons. There are 186 factories registered under the Factories Act. There are 20 Industrial Estates established in the State.

# POWER DEVELOPMENT

Power development has received great emphasis in the development programmes. Power position in the State has increased from 4 MWS in 1947 to 40 MWS at present. Under the rural electrification programme 563 villages have been electrified during the Third Five Year Plan. Electricity has been provided for the first time to Leh and Kargil in the Ladakh district.



ased upon Survey of India map with the permission of the Surveyor-General of Indi

# TOURISM

About 1.46 lakh tourists have visited Kashmir during 1967-68 including 10,946 from foreign countries.

Greater attention has been paid by the State Government to the development of popular tourist resorts, such as Cheshmashahi, Dal Lake, Pahalgam, Kokernag, Achhabal and Gulmarg. A number of Tourist Reception Centres, rest houses, hutments, parks and dormitories have been constructed and existing ones improved.

### **EDUCATION**

A sustained campaign against illiteracy has been launched and maximum educational facilities are being extended to the backward and far-flung areas. The number of educational institutions has multiplied. The increase of primary schools has been as high as 334. There are at present 427 High and Higher Secondary Schools with a total enrolment of about 41,000 in the State. The number of colleges for both Arts and Sciences has multiplied. The professional institutions in the State include a Medical College, Engineering College, Ayurvedic College, Tibia College, Polytechnic and Industrial Training Institutes.

### ROADS

At the end of the Third Five Year Plan the road length had reached upto 3,225 miles. During the two Annual Plans namely 1966-67 and 1967-68 this road length has further been developed and increased upto 3,741 miles. The expenditure incurred during the two annual plans was Rs. 90 lakhs and Rs. 216 lakhs respectively. During the Fourth Five Year Plan the road length is expected to increase upto 4,654 miles with an expenditure of Rs. 1,856 lakhs.

# HEALTH SERVICE

Health Services run throughout the length and breadth of the State. Well-equipped hospitals and dispensaries function in the districts and tehsils. All the 60 C.D. blocks have been provided with one health centre each. Fell diseases like malaria, tuberculosis, leprosy, small-pox, trachoma, V.D. etc. have either been controlled or completely eradicated through various State-wide campaigns. The total bed-strength in the hospitals and dispensaries has risen from 600 in 1947 to 3,956 at present. Expenditure on health services has risen to Rs. 4 crores from Rs. 18.94 lakhs in 1947. Per capita expenditure on public health has also shot up to Rs. 7.49 against 44 paise in 1947.

### CO-OPERATIVES

Nearly 46 per cent of the rural population is covered by agricultural credit societies, which number nearly 1,100. There are 6,559 villages in the State and nearly 87 per cent out of these villages are served directly or indirectly by these Co-operatives. Membership in these Societies is 2.77 lakhs. During 1967-68 these societies advanced Short Term, Medium Term and Khush-kharid advances of Rs. 5.85 crores including Rs. 2.09 crores on account of fertilizer and seeds.

Consumer goods for Rs.  $1\cdot39$  crores were sold by these Societies during 1967-68. Other activities of these societies include procurement of paddy and wheat valuing Rs.  $2\cdot29$  crores.

# FOREST DEVELOPMENT

The State has a forest area of over 8,139 sq. miles. Of this 2,887 sq. miles are available for timber exploitation and the rest function chiefly as protective forests. Revenue from forests rose from Rs.  $0\cdot25$  crores in 1947 to Rs.  $4\cdot07$  crores in 1967.

### ANIMAL HUSBANDRY

Cattle wealth constitutes a vital sector of the rural as well as urban economy. 1966 Census (in thousands): Cattle 1,791; Buffaloes 428; Sheep 1,152; Goats 605; Horses & Ponies 66; Other livestock 36·3; Total 4,079; Poultry 1,535.

During the Fourth Plan period the Department proposes to spend about 190 lakhs of rupees on various schemes and raise the milk production by 60,000 tonnes by the end of 1973-74 and per capita consumption to 124 grams per head.

A chain of 5 sheep breeding and research farms have been set up in the State. So far 75,000 sheep of exotic varieties have been evolved. The target for 1970-71 is two lakhs.

Great stress is being laid in the State on poultry development. During the Third Five Year Plan, a couple of poultry development schemes were implemented. Two Central poultry farms, one at Belicharana at Jammu and the other at Srinagar were also set up with about 400 layers as the basic stock. The number of layers in Belicharana has increased from 500 layers in 1967-68 to 2,000 in 1968-69. For the Fourth Five Year Plan the target for the two Central Farms has been fixed at 4,000 layers each. During the Fourth Five Year Plan 60 lakhs of rupees have been provided to be spent on the scheme.

## CONSTITUTION

A Constitution was finally approved and adopted unanimously on November 17, 1956. It came into effect on January 26, 1957.

The Constitution declares the State of Jammu and Kashmir to be "an integral part of the Union of India." This is irrevocable. Section 147 of the Constitution lays down that no amendment seeking a change in this can be moved in either House of the legislature.

With the adoption of the Constitution, the State has come much closer to the rest of the country. Having entered into financial arrangements with the Union Government in 1957, the State is on par with other States in respect of financial matters including proportionate allocation of funds from the Centre. The development schemes and projects under the Five Year Plans are being approved by the Planning Commission and expenditure on them is sanctioned on the recommendation of the Commission. Every major project is examined by various central agencies like the Central Water and Power Commission and Working groups of Central Ministries and the Planning Commission to ascertain their technical and economic feasibility.

A State cadre of IAS and IPS officers has been created. This has brought about the integration of services ensuring the sharing and pooling of experience and talent. The State's participation in the Northern Zonal Council has widened the area of co-operation with other States leading to greater exchange of experience, technical know-how and pooling of administrative and other resources in various fields of development. The Accounts and Audit department of the State is now under the Auditor-General of India.

The recommendations of the State Legislature to amend the State's Constitution to provide for the extension of jurisdiction of Election Commission and Supreme Court over the State have been incorporated in the Indian Constitution through a Presidential Order issued on January 26, 1960.

An Act passed by the Legislative Assembly of the State authorises the Government to permit those non-State KERALA

subjects to purchase land and other immovable property in Jammu and Kashmir who intend to set up industries in the State. The Government of Jammu and Kashmir have also entered into agreement with some Indian firms to establish industrial enterprises in the State. There is no ban now on the investment of outside capital in Jammu and Kashmir. In addition to the constitutional and economic integration, the Government of Jammu and Kashmir is also endeavouring to foster cultural and literary synthesis between Kashmir and the rest of the country.

### UNIVERSITY OF KASHMIR

Amarsingh Bagh, Srinagar 6.

Chancellor: Bhagwan Sahay, Governor.

Pro-Chancellor: G. M. Sadiq, Chief Minister.

Vice-Chancellor: Noor-ud-Din.

Registrar : Prof. Abdul Aziz.

Number of affiliated colleges and oriental institutions: 21.

Number of students who appeared for the previous examinations in 1967-68: Men 11,972; Women 4,300.

The medium of instruction is English except in classical and modern Indian language classes, where the medium of instruction is the language concerned or an allied language. (From September 1969 a new University by the name of University of Jammu came into being).

435

## **IAMMU UNIVERSITY**

Jammu.

Vice-Chancellor : Dr. J. N. Bhan.

### ASSOCIATIONS

JAMMU & KASHMIR PRADESH YOUTH CONGRESS Lall Chowk, Srinagar.

> BEOPAR MANDAL Sri Runbir Gunj, Srinagar 2.

KASHMIR CHAMBER OF COMMERCE & INDUSTRY Residency Road, Srinagar.

### Trade Offices

Trade Agent : S. A. Wahid.

Address: Manekji Wadia Building, 129, Mahatma Gandhi Road, Bombay 1.

Trade Agent, Kashmir House, Court Road, Amritsar, D. N. Kachroo.

Trade Agent, Dalhousie Road, Pathankot, N. R. Sharma.

Trade Commissioner, 5, Prithviraj Road, New Delhi,
R. C. Raina.

# ADMINISTRATIVE PERSONNEL

Srinagar

#### Governor

Bhagwan Sahay, I.C.S.

### COUNCIL OF MINISTERS

Chief Minister in charge of Gen. Adm., Law and Order, Inf. & Ladakh Affairs, G. M. Sadiq.

Finance and Planning, Law & Judiciary, G. L. Dogra. Land Revenue, Food & Civil Supplies, Irrigation, Relief & Rehabilitation, etc., M. N. Kaul.

Industries, Power, Health, Geology & Mining, Abdul Ghani Goni.

### Ministers of State

Noor Mohammed, Edn., Tourism; Bhagat Chajju Ram, Agriculture & Social Welfare; Sonam Wangyal, Cooperation & Animal Husbandry; Randhir Singh, Transport & Taxation.

### Dy. Ministers

Abdul Gani Mir, Planning & Horticulture; Abdul Gani Lone, Law and Irrigation; Kachoo Mohammed Ali, Health.

# Secretariat

Chief Secretary, P. K. Dave, I.A.S.; Secretary, General Deptt., Hari Ram Sharma; Secretary, Planning, S. K. Sehgal, I.A.S.; Secretary, Home, G. M. Mir; Secretary, Education, Tirth Ram; Secretary, Revenue, Yog Dhian; Secretary, Works & Power, P. N. Wanchoo; Secretary, Health, Dina Nath, I.A.S.; Secretary, Food, Supplies and Transport, G. D. Sharma, I.A.S.; Secretary, Agriculture, R. C. Bhargava; Secretary, Information & Publicity, G. D. Sharma; Secretary, Tourism, Sri Kanth Raina; Secretary, Industries, G. R. Renzu; Secretary, Finance, Noor Moh'd.

### HEADS OF DEPARTMENTS

Divisional Commissioner, Kashmir, S. A. S. Qadri, I.A.S.; Divisional Commissioner, Jammu, Chaudhury Bharat Bhushan, I.A.S.; Inspector General of Police, Surinder Nath, I.P.; Director of Information & Publicity, B. P. Sharma; Director of Health Services, S. K. Kaul; Director of Tourism, Mir Nasur-Ullah; Director of Geology & Mining, K. V. S. Varadan; Director of Animal Husbandry, D. R. Marwah; Director of Agriculture, M. S. Nann; Director of Fisheries, Ghulam Mustafa Malik; Financial Commissioner, S. M. Aga, I.A.S.; Transport Commissioner, G. M. Untoo, Labour Commissioner, M. Y. Andrabi; Chief Conservator of Forests, Ghulam Naqashband; Controller of Tawaza, S. K. Biswas; Registrar, Co-operative Societies, Dina Nath Kotwal.

# HIGH COURT

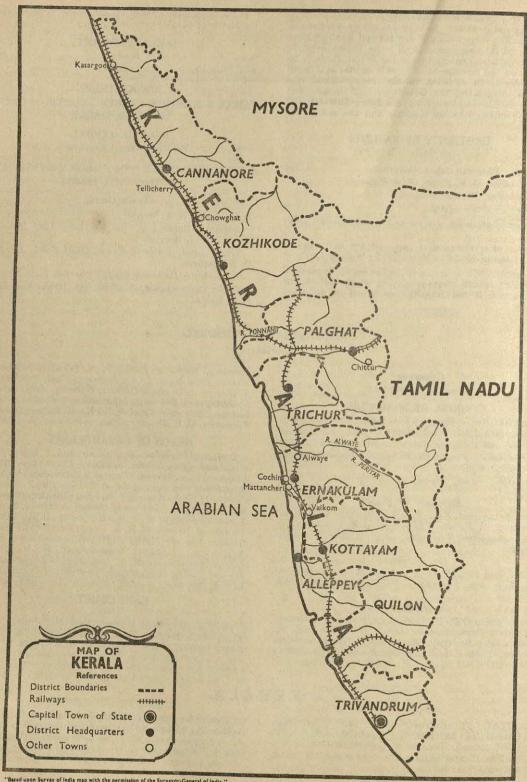
Jammu

Chief Justice, Syed Murtaza Fazl Ali; Judges, J. N. Bhat, Raja Jaswant Singh, Mian Jalal-Ud-din (Addl.), Anant Singh (Ad Hoc.); Registrar, R. S. Gupta.

# KERALA

CAPITAL: Trivandrum. Area: 38,855 Sq. Km. Coastal line: 580 Km. Total population 16,903,715 (1961 census). Density of population (1961): 435 per Sq. Km. Sex ratio: 1,022 females per 1,000 males. Literacy per 1,000: 468.

Figures for December 31, 1969: Number of districts 10; taluks 56; villages 1,635; municipal towns 26; corporations 3; panchayats 950. One more district the Malanad District is proposed to be formed by bringing together certain portions of Ernakulam and Kottayam districts.



KERALA 437

The report of the committee on Malanad has been submitted to the Government.

Names of Districts with names of District Headquarters within brackets: Trivandrum (Trivandrum); Quilon (Quilon); Kottayam (Kottayam); Alleppey (Alleppey); Trichur (Trichur); Cannanore (Cannanore); Kozhikode (Kozhikode); Palghat (Palghat); Ernakulam (Ernakulam); Malappuram (Malappuram)

For population of districts according to the 1961 census, see "Population." As a result of the formation of Malappuram District on 16-6-1969 the area of Kozhikode District has been reduced to 1,433·1 square miles.

Geography: The climate of the whole region is generally temperate and the rainfall heavy. Languages spoken in the State are Malayalam, Tamil and Kannada.

### **INDUSTRIES**

Important industries of the State: Coir, textiles, tea, rubber, manufacture of bricks and tiles, fertiliser, chemicals, electrical accessories, cashew nut processing, printing, saw milling including plywoods and manufacture of splints and veneers for matches, rice milling, handloom, handicrafts and extraction of oils.

Main large-scale industries of State: Rubber, plywood, fertilisers and chemicals, rayons, glass, paper, aluminium, sugar, cement, textiles, titanium dioxide, soaps, shark liver oil, ceramics, rare earths and engineering cables, penstock, wire ropes, heavy transformers, spinning mills, D.D.T., machine tools & petroleum products.

Chief products of the large-scale industries of the State: Chemicals, ammonium sulphate, ammonium chloride, ammonium phosphate, superphosphate, sulphuric acid, ammonia, caustic soda, chlorine, calcium carbide, copper sulphate, titanium dioxide, rare earth salts, cycle rims, crockery and sanitary wares, electric porcelain, fire bricks, china clay, rayon grade pulp, sugar, etc.

Miscellaneous: Aluminium ingots, glassware, cement, rayon, transparent paper, vegetable oils and soaps, vanaspati, alcohol, pharmaceuticals, galenicals, plywood, ceramicware, rubber goods, paper, cotton textiles and engineering materials, agriculture implements, dyeing and printing, manufacture of jewellery, canning and preservation of fish, starch, cutlery, locks, rubberised coir products, cycle parts and sewing machines.

The six Government owned companies are Trivandrum Rubber Works, Trivandrum Spinning Mills Ltd., The Kerala Ceramics Ltd., Kerala Electrical and Allied Engineering Company Ltd., Travancore Plywood Industries Ltd., and Kerala Soaps and Oil Ltd.

Under the private sector, the Kerala State Industrial Development Corporation (KIDC) has been organised to help capital formation in respect of deserving enterprises. The Corporation has undertaken to offer financial and technical services to industrialists for setting up industries.

Plantation Industry: The programme of development comprises planting by Government and individuals and encouraging distribution of loans to auction purchasers of forest lands. With this end in view Government have reconstituted the Plantation Corporation of Kerala.

Village and Small Industries: To promote the growth of industries in the rural and underdeveloped areas, a scheme of giving subsidies to small scale industrialists starting industries in such areas, has been drawn up. The Kerala State Small Industries Development Corporation have taken up works in connection with the above programmes.

Industrial Estates: During 1968 there were eighteen Industrial Estates under the management of the Kerala State Small Industries Corporation.

"Small Scale production in NES Blocks" has been taken up for implementation during the first phase of the Fourth Five Year Plan. The programme was to establish small scale production centres preferably in NES Block areas each costing Rs. one lakh. During the year Government have accorded sanction for starting 2 units in each of the Districts. For this the scheme has been selected and approval accorded for implementation.

The establishment of development areas in all the districts is an important item in the industrial development in the State which has acquired added significance in the context of the Industrial policy announced by Government. According to the Scheme, Development Areas have been established at Kadakampally and Akulam in Trivandrum District, Aroor in Alleppey District, Edayar and Angamaly in Ernakulam District and Pudussery in Palghat District.

Industrial Co-operative Societies: There were 2,031 industrial Cooperative Societies in the State at the end of the year 1966-67. These societies had 1,61,012 members. The value of goods produced in all these societies amounted to Rs. 83,19,406.

Handicrafts: Brass and bell metal work, handloom furnishing fabries and lace cloth, screwpine, kora grass and palmyra leaf weaving, rattan work, kuft gari, bamboo and reed weaving, Kathakali costumes manufacture, traditional folk jewellery making, Aranmula Metal Mirror making, laminated woodwork, toys and dolls making, lace and embroidery, lacquerware, ivory, horn, wood, coconut shell carvings, etc. are the important handicrafts of this State. There are about 15,000 persons employed in 3,000 establishments in these crafts. There are about 300 Handicraft Co-operatives in the State.

With a view to developing the handicrafts industry in Kerala, boost the export of handicraft articles and render assistance to the artisans both in the co-operative sector and outside, the "Handicrafts Development Corporation of Kerala Private Ltd.," has been registered in November 1968.

Handloom Industries: Total No. of looms in the State: 1,20,000; Total No. of looms in the Co-operative fold (Regd.) as on March 31, 1966: 45,401; Total No. of looms registered outside Co-operative fold as on March 31, 1966: 63,596; Total No. of societies in the State as on March 31, 1967: 401; Total No. of individual members as on 30th June 1967: 51,808; Total paid-up share capital as in June 1967: Rs. 32,01,515; value of goods produced in all the societies: Rs. 2,55,59,820; the amount of sales: Rs. 2,46,03,068.

6,42,996 metres of handloom cloth were produced in 1966-67, out of which 25,582 metres were from co-operative sector. The production of powerloom cloth was 13.5 lakh metres, of the value of Rs. 15.6 lakhs.

Conversion of handlooms into powerlooms has been taken up as a centrally sponsored scheme. 1,000 powerlooms have been distributed to 87 societies in the State.

Government of India have allotted 3,900 powerlooms to the State for installation during the Fourth Plan period. The looms are intended to be installed in the Co-operative and Private Sectors.

With a view to rendering assistance to private individuals engaged in handloom industry outside the Copperative Sector, Government constituted the Handloom Finance Corporation with an authorised capital of Rs. 1 crore.

Cashew Industry: There are about 250 cashew processing factories in India of which nearly 75 per cent are in Kerala, employing more than a lakh workers.

Coir Industry: The important items in the programme will be the organisation of primary coir co-operatives, coir marketing societies, and societies for the manufacture of mats and mattings, ropes, bristle and mattress fibre. A model coir factory has already been organised at Beypore to modernise the manufacturing side of the coir industry. Total number of primary Coir Co-operative Societies (figures for 1968): 543; membership in all the Societies: 1,25 lakhs; Paid-up share capital Rs. 17,52,551.

Khadi and Village Industries: The Kerala Khadi and Village Industries Board was constituted in August 1957 so as to help the villagers in organising co-operatives and to give loans and grants and other technical assistance for the development of Village and Cottage Industries such as Khadi and Ambar, village oil, hand-pounding of paddy, village pottery, non-edible oil, soap, handmade paper, gur, khandsari, bee-keeping, village leather, palm gur, fibre, carpentry, blacksmithy, etc. Financial assistance for the development of Khadi and 14 other village industries is being given by the Board.

The value of village industries products rose from Rs. 227·77 lakhs in 1965-66 to Rs. 236·83 lakhs in 1966-67. The production in 1966-67 was nearly 4 per cent higher than that in 1965-66. The major Khadi production Centre at Payyannur is run by the Board. The production of the Centre in 1966-67 was to the value of Rs. 8·78 lakhs. There were 3.744 spinners and 187 weavers in the centre by the end of 1966-67.

Chief minerals produced in the State: The beach sands contain the much valued and strategic mineral monazite besides five others of great economic value namely ilmenite, rutile, sircon, sillimenite and garnet. The extensive white clay deposits contribute to the ceramic industry. Other minerals available are mica, graphite, limestone, quartzsand and lignite.

Substantial white sand reserves suitable for glass manufacture have been found in some places of Alleppey and Ernakulam Districts. Deposits of Kaolin have been found in Kundara, Quilon District and several other places in the districts of Trichur and Cannanore.

### LABOUR

Names of industries in which a minimum wage is fixed: For the whole State upto 31-12-1967: Rice mill, flour mill or dal mill, tobacco (including beedi making), plantations (coffee, tea, rubber & cardamom), oil milling, local authorities (municipalities and Panchayats), construction and maintenance of roads and buildings, stone breaking and crushing, public motor transport, tanneries and leather manufactory, match industry, shops and establishments including hotels and restaurants, cashew industry, tile industry, printing presses, timber industry, toddy tapping, agriculture, coir manufacture, plywood industry and minor ports.

Revision of minimum wages in 1968: Tobacco industry (for the employees in beedi rolling sector to have a change in the payment of D.A. to the workers), Agriculture (for employees employed in Agricultural operations).

Number of registered factories in the State as on 31st December 1967: 2,955; Number of working factories in the State as on 31st Dec. 1967: 2,845; Number of working factories which submitted the annual returns: 2,053; Average daily employment in the working factories

submitting returns: 1,35,244. Total average daily employment in all the registered working factories (estimated) 202,589.

Number of accidents in registered factories during 1967 (including fatal cases): 2,717.

Number of fatal accidents: 19.

Number of registered Trade Unions as on 31st December 1967: 2,149.

Kerala Labour and Industrial Bureau: The Bureau will promote and co-ordinate research in labour and industrial problems, including organisational and administrative aspects. It will also foster the application of research in the development of commerce, trade and industry and for the fruitful utilisation of natural resources in the industrialisation of the State.

The Bureau has initiated an 'industry study series' intended to give wide knowledge of the problems of industrial development in general and more in particular of those concerning the economy of Kerala. The Bureau has published books on 'Cashew Industries' and 'Plywood Industries' in Kerala. A book on Match Industry in Kerala is ready for publication. The work on tile industry is in progress.

Equipment: Ploughs (wooden: 562,281; iron: 6,441); carts: 21,040; sugarcane crushers (power 175; bullocks 1,071); oil engines: 3,372; electric pumps: 2,565; tractors: 276; Ghoris (more than 5 seers: 2,058; less than 5 seers: 2,164).

### LIVESTOCK 1966

(See under main article "Livestock")

## AGRICULTURE

The per capita extent of cultivated area is 0.11 hectare (1967-68).

Foodcrops: Rice, jowar, ragi, other cereals and millets, tur, other pulses, sugarcane, pepper, chillies, ginger, turmeric, cardamom, betelnut, mango, citrus fruits, banana (including plantains), cashewnut, tapioca, sweet potato and onion.

Main cash crops of the State: Coconut, Arecanut, Tes, Coffee, Cardamom, Rubber, Pepper, Gingelly, Cotton, Turmeric, Sugarcane, Ginger, Lemon grass, Groundnut and Cashewnut.

Equipment (agricultural 1966): Wooden ploughs 4,75,930; Iron ploughs 17,179; Carts 16,309; Sugarcane Crushers (power) 457; Sugarcane Crushers (bullocks) 989; Oil engines 6,824; Electric pumps 4,869; Tractors 418; Ghanies (more than 5 Kgms.) 692; Ghanies (less than 5 Kgms.) 628.

Classification of area in hectares as on 30th June 1968: Forests 10,55,811; Barren and uncultivable land 91,830; land put to non-agricultural use 2,40,830; cultivable waste 98,556; permanent pastures and grazing lands 27,800; land under miscellaneous crops not included in net area sown 1,61,862; fallow land other than current fallows 29,656; Current fallow 28,333; net area sown 21,28,845; area sown more than once 6,28,594; total cropped area 27,57,439; net area irrigated 4,10,510; gross area irrigated 5,72,200.

Total number of rubber, coffee and tea plantations: Rubber 88,156 (as on 31st Dec. 1967); Tea 2,451 (as on 31st Dec. 1967); Coffee 18,902 (as on 30th June 1969).

SETTLEMENT

AREA, PRODUCTION AND AVERAGE YIELD OF IMPORTANT CROPS IN KERALA DURING 1967-68

	Crop		Area (Hectares)	Produc- tion (Tonnes)	Average yield (Kg./ hectares)
	l L	H	2	3	4
1.	Rice		8,09,544	11,23,897	2,113†
2.	Other cereals	&	2 700	2.050	466
	millets		6,569	3,058	393
3.	Pulses		42,632	16,743	
4.	Sugarcane (gur)		8,033	49,973	6,221
5.	Ginger (dry)		11,795	11,117	942
6.	Turmeric (dry)		4,443	3,725	838
7.	Banana		8,785	64,008	7,286
8.	Plantain		40,633	3,10,274	7,636
9.	Tapioca		2,97,646	41,98,357	14,105
10.	Sesamum		11,163	2,629	236
11.	Groundnut		13,714	24,675	1,799
12.	Black pepper		99,702	21,064	211
13.	Cashewnut		94,990	1.06,578	1,122
14.	Cardamum (cure		47,026	1,606	34
15.	Cocoanut		6,38,722	3,593*	5,625@
16.			76,044	11,473*	1,50,873@
	G II	• •	6,625	6,461**	175
17.	PD	• •	39,282	43,189	1,099
18.	Tea	• •	26,468	11,458	433
19.	Coffee			59,978	368
20.	Rubber		1,62,932	902	1,292
21.	Tobacco		698	902	1,232

# LAND REFORMS

The Kerala Land Reforms (Amendment) Bill, 1968, further to amend the Kerala Land Reforms Act, 1963 has been passed by the State Legislative Assembly. The President has given assent to the Bill and the new Act has come into force from 1st January 1970.

Foreign Aid: The Swiss Government will grant 1,640,000 Swiss francs for carrying out the first stage of a farming development project in Kerala which has been located in the High Ranges.

### **FISHERIES**

See article on 'Fisheries' for details.

### **FORESTS**

The figures relate to 1968-69.

Total forest area in State: 8,827 sq. km. 31·85 Hectares; Reserved land 189 sq. km. 79·07 Hectares; proposed for fuel and fodder reserves 1 sq. km. 16·5 Hectares; private forests proposed to be acquired 1,950 sq. miles.

Location of forests: The main forest tract lies north to south, along the Western Ghats, forming the eastern boundary of the State.

Revenue from the forests: Rs. 8,28,48,741; expenditure: Rs. 2,84,54,137.

Main forest produce: Timber, firewood, bamboos, reeds and ivory.

Quantity of each variety: Timber (round logs) 4,82,864 cum. and 77,124 B.G. units of sleepers and 19,23 · 400 kg. of sandalwood; Poles 2,88,543 nos.; Firewood 2,29,734 tonnes; Bamboos 62,63,077 nos.; Charcoal 3,22,015 bags; Ivory 50 · 116 kgms.

OF	Direct negotiation	18	=						22	9
OD	noitesibulbA	17		100		1		•		- j
METHOD OF	Conciliation	16	10	16	67	2	6	9	77	125
N	moitsibeM	15	9	60	-	4	3	က	33	53
	otinfied	14				-			4	20
LT	Unsuccessful	13		-		:	1		4	9
RESULT	Partially successful	12	5	00	2	2	00	4	26	22
	Successful	11	27	16	3	10	6	7	115	187
AGES	Total No. of Man days lost	10	39,831	94,033	12,724	16,050	37,026	15,28,950	6,44,239	23,72,853
DETAILS OF WORK STOPPAGES	No. of workers affected	6	7,932	6,679	354	1,085	2,761			1,52,053
MOI	No. of workers	8	7,500	11,933	405	1.217	3,531	67,717	73,435	1,65,738
	Others	7	12	21		10	7	-	37	88
	Retrenchment	9	1					7.	3	4
ISES	Working condition	29		1	1	2	2	-	3	10
BY CAUSES	Bonus	4	00	3			4		14	53
B.	Wages and allowance	3	21	9	4	4	6	6	113	991
	sejuqsib	2	12	-	10	9	66	-		
	Total No. of		4	31			6			297
	Ligsnpul	1	Plantations	Textiles		Villa	Tiles	Cashew	Others	Total

1.96T

Uners

at the end of the year

No. of strikes continuing

21

PARTICULARS OF WORKSTOPPAGES DURING 1967

<sup>\*</sup> Million nuts.

<sup>\*\*</sup> Bales of 180 kgm.

### TRANSPORT

Total length of roads: 15,220 km.

National Highways 448 km.; State Highways 2,470 km.; District Roads 6,658 km.; Village Roads 5,644 km.

Total mileage of waterways: 1,116 miles (Navigable length of rivers 521 miles; navigable length of canals and cross canals 595 miles).

Total number of aerodromes: Two.

Particulars of Ports: Major Ports: I—Cochin; Intermediate ports: 2—Alleppey and Calicut; Minor Ports: 9—Trivandrum, Quilon, Koilthottam, Ponnani, Badagara, Tellicherry, Cannanore, Azhikkal and Kasargod.

Number of ports and harbours: 11.

Number of broadcasting stations: 2.

Kernla State Road Toward Control of the state Road Toward Co

Kerala State Road Transport Corporation:

Road mileage over which services are operated along with private operators as on 30th September 1968: N.A.

Number of routes: 880. Route kilometreage: 31,407. Number of buses owned: 1,188.

Number of lorries owned 59. Number of other vehicles: 58.

Total number of employees: 14,974 (including daily rated employees).

Passenger earnings: Rs. 82,49,067.

Kilometres operated per day by buses: 2,41,212. Kilometres operated per day by lorries: 2,205. Number of persons transported per day: 7,23,915.

Total amount of goods carried: about 16 lorries of 5 tons each a day.

Capital invested: Rs. 744 lakhs as on 31-3-1969.

# POWER PROJECTS Projects in Operation

Pallivasal H. E. Project: In the high ranges in Devicolam below Munnar. Installed capacity 37,500 kW. Actual production during 1968-69: 207-35 million units.

Sengulam Hydro-Electric Scheme: The power station is located at Vellathuval below Pallivasal and is a tail race development of Pallivasal scheme. The installed capacity is 48,000 kW. Production during 1968-69: 127.75 million units.

Poringalkuthu Hydro-Electric Scheme: The power station is located at Poringalkuthu on the Chalakudy river in Trichur District. The installed capacity now is 32,000 kW comprising four generating sets of 8,000 kW each. Production during 1968 69: 175.55 million units.

Neriamangalam Hydro-Electric Scheme: The power station is located at Panamkutty on the right bank of the Periyar river. The installed capacity of the station is 45,000 kW comprising 3 generating units each of 15,000 kW. The production during 1968-69: 217.59 m. units.

Panniar Hydro-Electric Scheme: The power house is located on the left bank of the Muthirapuzha river almost opposite to the Sengulam power house. The power station has an installed capacity of 30,000 kW comprising two units each of 15,000 kW. Production during 1968-69: 72.75 million units.

Sabarigiri (Pamba) Hydro-Electric Project: This envisages development of power from the waters of the Pamba and Kakki rivers. The project was inaugurated on Aug. 28, 1967. The power station has an installed capacity of 300,000 kW, consisting of six units of 50,000 kW each, involving an expenditure of Rs. 40 crores approximately.

The project involved the construction of a 52 metres high dam across Pamba river, and a 110 metres high dam across Kakki river, with a saddle dam, and interconnecting tunnel, 3,210 metres long between Pamba and Kakki reservoirs.

The head-race tunnel, about 5,500 metres long, having a capacity of 55.7 m³ per sec., took off from Kakki reservoir. The project was executed with loan from U.S. AID (Agency for International Development).

4 units of 50 MW capacity each were commissioned between April 1966 and June 1967. The remaining 2 units were commissioned in October and November 1967. During the year 1968-69 the Station generated 608-33 million units.

Sholayar Hydro-Electric Scheme: This scheme is located on the bank of the Sholayar river, a tributary of the Chalakudy river in Trichur District. The generating station has three sets each of 18,000 kW capacity. The estimated cost of the scheme is Rs. 750 lakhs. The first unit of 18,000 kW capacity was commissioned in May 1966. The remaining two units were commissioned in January and May 1968. Production during 1968-69 was 213.74 million units.

The present installed capacity of the Hydro Electric Stations in the State is 546,500 kW. The energy output from the hydro electric stations during the year 1968-69 was 1,623.05 million units.

Idikki H. E. Project: This is the largest hydro electric scheme planned for execution in the State with Canadian assistance having an installed capacity of 780,000 kW. The first stage of the scheme estimated to cost Rs. 6,820 lakhs will have an installed capacity of 390 MW, developing from power of 210 MW at 100 per cent load factor. The scheme after completion will irrigate 115,000 acres in Thodupuzha, Meenachil and Vaikom Taluks and will be located in the Kottayam and Ernakulam Districts across the Periyar River. The first unit of 130 MW capacity is expected to be in service during 1972.

Kuttiadi H. E. Project: The project envisages power development from the Kuttiadi river in Malabar area of this State. The scheme estimated to cost Rs. 825 lakhs will contribute 245 million units to the energy potential of the grid. The power station will have an installed capacity of 75,000 kW comprising three units of 25 MW each.

The Kerala and Tamil Nadu systems are inter-connected by a 220 kW interstate transmission line constructed between the Sabarigiri Power Station in Kerala and Madurai receiving station in Tamil Nadu. The line is in commercial operation delivering power to Madras.

For distribution in Cannanore District in Malabar area power is purchased from Mysore State through a temporary 110 kV interstate link. All the other areas are covered by supply from the state's grid.

Out of 1588 villages in the state 1,135 villages have already been electrified by the end of March 1969. It is proposed to electrify all the remaining villages by the end of IV Plan. The Edamalayar River Valley Project primarily to augment the river flow in the lower reaches of Pariyar has been started.

### IRRIGATION

Major Irrigation Schemes: The following are the major irrigation projects:

al al	Name of Sch	eme	Estimated cost in Rs. lakhs	Area to be served in acres
1.	Malampuzha		 580.00	47,600
2.	Walayar		 131.66	8,000
3.	Mangalam	1	106.00	8,000
4.	Vazhani		 107-57	8,810

KERALA

# IRRIGATION-(Contd.)

	Name of Scheme	Estimated cost in Rs. lakhs	Area to be served in acres
5.	Peechi	235.00	43,380
6.	Chalakudy (1st stage)	153 - 25	28,400
	(2nd stage)	60.00	20,250
7.	Neyyar (1st stage)	226.00	19,000
	(2nd stage)	170.00	10,000
8.	Gayathri	220.00	13,500
9.	Kallada	1,328.00	1,30,000
10.	Pamba	863 - 12	33,000
11.	Kuttiadi	496.04	36,000
12.	Kanjirapuzha	365 · 10	24,000
13.	Chittoorpuzha	105.63	27,800
14.	Pazhassi	442.40	40,000
15.	Pothundy	234 - 25	11,000
16.	Cheerakuzhy	90.76	4,000
17.	Periyar Valley	640.00	63,300
	Land Development Schen	nes:	
1.	Thannirmukkom		
1	Regulator	313.00	1,21,000
2.	Kattampally	52.81	4,000

Of the above schemes Malampuzha, Walayar, Mangalam, Vazhani and Peechi Schemes and the 1st stage of Chalakudy have been fully commissioned. Finishing works, minor extensions, improvements etc. are however being carried out in Malampuzha, Walayar, Vazhani and Peechi schemes.

Besides these, the Chalakudy second stage, has been commissioned. Gayathri scheme first stage has been completed. Schemes viz. Chulliar (Gayathri 2nd stage), Neyyar I & II Stages and Cheerakuzhy are nearing completion. Periyar Valley has been partially commissioned. Work in Pothundy project nearing completion. Schemes viz. Pothundy, Neyyar I and II, Cheerakuzhy and Gayathri 2nd stage also have been partially commissioned.

Six new projects had been taken up for execution during the Third Five Year Plan and they are Kallada, Pamba, Kuttiadi, Kanjirapuzha, Pazhassi and Chittoorpuzha. Works in these projects are in various stages of progress.

Work relating to the regulator at Thannirmukkom, the Second stage of the Kuttanad Development Scheme is in progress and the Kattampally Project is completed. When the second stage of the Kuttanad Development Scheme is completed, an area of about 1,21,000 acres will be benefited in the Kuttanad area.

Shipyard: The work on the second shipyard at Cochin is expected to start during the Fourth Plan period.

The Union Government proposes to build at Cochin ocean-going steamers with 20,000-ton displacement.

Land Tenure: There are a number of land tenure systems in the State. Janmam lands, Pandaram, Kanapattam, Verumpattam, Adima, Anubhogam, etc., are some of these.

Panchayati Raj: Elected panchayats are now functioning all over the State.

# PUBLIC HEALTH

Figures as on 1-1-1968:

Number of medical institutions 490; Government hospitals 107; Govt. dispensaries 197; Primary health centres (including one M. C. H. Centre) 164; grant-in-aid institutions 15; secondary health centres 1; mobile dental hospital 1; T.B. clinics 20; beds (Govt.) 19,004; beds (grant-in-aid) 1,194; out-patients treated 24,667, 058;

in-patients treated during 1967: 9,95,993; out-patients treated in grant-in-aid institutions 3,23,639; in-patients treated in grant-in-aid institutions 19,146.

441

### FOURTH FIVE-YEAR PLAN

The total outlay for Kerala's Fourth Five-Year Plan has been provisionally fixed at Rs. 258 crores and the State's annual plan for 1970-71, Rs. 46 crores.

(See under main article on "Fourth Five-Year Plan".)

### **EDUCATION**

Particulars showing the number of students in schools run by Government and private bodies respectively within brackets for 1967-68 were as follows:—

Number of students under instruction 44,52,637 (23,92,030 boys, 20,60,607 girls); Percentage of the total number of pupils under instruction to the total population; 23.26.

Percentage of literacy (1961 Census): 46.8.

19·12 lakhs of children participated in the CARE feeding programme and an amount of Rs. 42,63,771·12 has been spent during 1967-68.

Gross expenditure on General Education during 1967-68: Rs. 36.50.10.519.47.

## Special Schools

Strength of students in each category of Spl. Schools with classification of boys and girls respectively in brackets are as follows:—

Nursery Schools 7,347 (3,715 boys and 3.632 girls): Schools for the handicapped 509 (395 boys and 114 girls); Training Schools 13,488 (4,623 men and 8,865 women).

## Distribution of Institutions

No. of High Schools 1,283; Post Basic Schools 3; Anglo High Schools 7; Upper Primary Schools 2,406; Senior Basic Schools 71; Anglo Indian U.P. Schools 2; L. P. Schools 6,566; Junior Basic Schools 364; Anglo Indian L.P. Schools 1; Basic Training Schools 104; Anglo Indian Training Schools 1; Nursery Training Schools 3; Pre-Primary Schools 156; Fine Arts Schools 2; Schools for Handicapped 7; Hindi Training College 2; Basic Training College 1; Language Teachers Training Centre 5.

Total number of arts and science colleges (Govt.) as of December 1965: 10; Govt. Training Colleges 4; Govt. Physical Education Colleges 2; Govt. Sanskrit Colleges 3; Govt. Music College 1; Govt. Music Academies 2.

No. of technical institutes in Kerala State under the Directorate of Technical Education: Public Sector: Ten. Private Sector: Six.

Craft education in various subjects such as bookbinding, cutting and tailoring, coir work, rattan work, gardening, spinning and weaving, fishing, wood work, etc., has been introduced in all the upper primary and secondary schools, the subjects chosen in each school being dependent upon the availability of raw materials and local conditions.

### New Universities

A third University, the Cochin University was expected to start functioning from July 1970. An Agricultural University will be started shortly in Trichur.

# UNIVERSITY OF CALICUT

P.O. Tenhippalam, Calicut-5

Chancellor: V. Viswanathan, Governor, Kerala; Pro-Chancellor: Minister for Education, Kerala; Vice-Chancellor, M. M. Ghani; Registrar: K. C. Chacko. No. of affiliated Colleges 56; No. of University Departments 4; No. of Students in the University 31,205 (1968-69).

Budget Estimate for 1969-70: Receipts Rs. 92,08,600 · 00. Expenditure: Rs. 92.08,600 · 00

New Courses started: Bachelor of Technology; B. Tech. (Forestry); B. Tech. (Fisheries).

## UNIVERSITY OF KERALA

#### Trivandrum.

The jurisdiction of the University extends to the Revenue Districts of Trivandrum, Quilon, Alleppey, Kottayam and Ernakulam.

Chancellor, V. Viswanathan (Governor of Kerala). Pro-Chancellor, C. H. Mohammed Koya, Minister for Education, Kerala. Vice-Chancellor, Dr. A. Aiyappan, M.A., Ph.D. (Lond), Registrar, A. Sreedhara Menon, M.A., A.M. (Harvard).

Type of University: Teaching and Federal.

Subjects in which there is provision for post-graduate teaching and or research courses leading to the M.A., M.Sc., rh.D. and D.Sc. Degrees: English, History, Economics, Politics, Philosophy, Psychology, Social Work, Sociology, Education, Mathematics, Physics, Applied Physics, Chemistry, Applied Chemistry, Analytical Chemistry, Botany, Genetics & Plant Breeding, Zoology, Statistics, Geology, Home Science, Demography, Malayalam, Tamil, Sanskrit, Hindi, Linguistics, Marine Biology, Oceanography, Law, Engineering, Medicine; Dental Surgery, Commerce and Agriculture.

Number of colleges under the University: Arts and Science Colleges 50; Professional Colleges 25; Colleges under the Faculty of Oriental Studies 3; Junior Colleges

Total number of students in the University during 1968-69: 1,06,673 (Men 63,365; Women 43,308).

Medium of instruction : English.

### ASSOCIATIONS

## ANANDA NRITYA KALALAYAM SCHOOL OF KATHAKALI DANCE

Head Office: Palace Ward, Thevalli, Quilon 1. Branch: Kakkad, Kunnamkulam.

AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA Pulical Bldgs., M. G. Road, Ernakulam.

> BADAGARA SHIPPERS' ASSOCIATION Badagara.

ALL INDIA MANUFACTURERS' ORGANISATION Mohan Vihar, Karikumari Road, Ernakulam 1.

ALLEPPEY OIL MILLERS' & MERCHANTE' ASSOCIATION

Naga Mahal Bldgs., Alleppey.

ALLEPPEY PRODUCE MERCHANTS' ASSOCIATION Alleppey.

THE CALICUT CHAMBER OF COMMERCE AND INDUSTRY

South Mananchira Road, Calicut 1.

THE CASHEW EXPORT PROMOTION COUNCIL
'World Trade Centre', Mahatma Gandhi Road,
Ernakulam, Cochin 16.

Chairman : E. C. Sanker ; Secretary : K. T. Ravi Varma.

CENTRAL COCONUT RESEARCH STATION Kayangulam, Ochira P. O.

CENTRAL COCONUT RESEARCH STATION Kasaragod.

CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY

P.B. No. 39, Chittoor Road, Ernakulam 1.

CENTRAL KERALA TILE MANUFACTURERS'
ASSOCIATION
Trichur 1.

CHAMBER OF COMMERCE Arecal Bldgs., M.C. Road, Kottayam.

CHAMBER OF COMMERCE

CHAMBER OF COMMERCE Chalai, Trivandrum 1.

THE CHANGANACHERRY MERCHANTS' ASSOCIATION

Market, Changanacherry.

CHRISTIAN LITERATURE SOCIETY

Malayalam Branch.

Tiruvalla P.O.

# COCHIN CHAMBER OF COMMERCE AND INDUSTRY

Bristow Road, Willingdon Island, P. Box No. 503, Cochin 3.

President: M. Sankara Menon; Vice-President: T. Koshy; Secretary: P. Sethuram.

COCHIN PAPER, CUTLERY & ALLIED TRADERS'
ASSOCIATION

Jain Temple Trust Bldg., IV/47, New Road, Cochin 2.

DAIRY PRODUCTS IMPORTERS' ASSOCIATION Jain Temple Trust Bldg., IV/47, New Road, Cochin 2.

ERNAKULAM CHAMBER OF COMMERCE Ernakulam 1.

ERNAKULAM PRESS OWNERS' ASSOCIATION Deepam Press Bldgs., Basin Road, Ernakulam 1.

FAMILY PLANNING ASSOCIATION OF INDIA Shanthi Bhavan, Bhakthi Vilas Road, Trivandrum.

> GANDHI ASHRAM Mayannur, Via Ottapalam.

Secretary: K. N. Nambisan; Joint Secretary: Smt. Kamala Nambisan.

The Gandhi Ashram does constructive work on Sarvo-daya lines. Besides Khadi—Ambar and traditional, most of the other village industries of the Khadi Commission, such as soap making, oil pressing, pottery, tanning and bone crushing, hand-pounding, bee-keeping, fibre industry, etc. are being worked at the Ashram.

KERALA 443

GANDHI SEVA SADAN Gandhi Seva Sadan P.O., Via Lakkiti, Dist. Palghat.

INDIA PEPPER AND SPICE TRADE ASSOCIATION

XI/118, Jew Town, Cochin 2.

INDIAN CHAMBER OF COMMERCE P. O. Box No. 236, Cochin-2.

President: D. A. Kamath; Vice-President: K. Narayana Menon; Secretary: V. K. Raja.

INDIAN CONFERENCE OF SOCIAL WORK Post Box No. 6, Ernakulam 1.

INDIAN LEMONGRASS OIL EXPORTERS'
ASSOCIATION
P. Box 52, Cochin 1.

INDIAN RED CROSS SOCIETY Near General Hospital, Trivandrum 1.

INDO-NORWEGIAN PROJECT P. Box 137, Ernakulam.

INDUSTRIAL & COMMERCIAL RESEARCH SOCIETY OF INDIA Vallia Veedu, Kozhencheri.

INSTITUTION OF ENGINEERS (INDIA) 12/33B, Observatory Hill, Trivandrum 1.

INTERNATIONAL FELLOWSHIP Mahilagiri, Thorrumukkam P.O. (Dt. Alwaye).

KERALA BLIND WELFARE ASSOCIATION
Mankadapallipuram P.O.
Angadipuram.

KERALA COIR PRODUCERS' AND DEALERS'
ASSOCIATION
Alleppey.

KERALA KALAMANDALAM
Cheruthuruthy P.O.

State Academy of Arts imparting training on scientific lines in Kathakali, Koothu-koodiyattam, Panchavadyam, Ottanthullal, Mohiniyattam and Bharatanatyam.

KERALA SAHITHYA AKADEMI Trichur.

KERALA SANGEETHA NATAKA AKADEMI Trichur 1.

KERALA STATE COUNCIL FOR CHILD WELFARE 15/674, Bhaktivilas Road, Trivandrum 14.

THE KERALA STATE OIL MILLERS' ASSOCIATION Ernakulam Mills Buildings, Ernakulam.

KERALA STATE SMALL INDUSTRIES
ASSOCIATION
New Road, Cochin 2.

KOZHIKODE TIMBER EXPORTERS' ASSOCIATION Mooriyad, Calicut-7.

THE MALABAR BUS OWNERS' ASSOCIATION
Oyitty Road, Kozhikode.

THE MALABAR CHAMBER OF COMMERCE

President: Liladhar N. Mehta; Vice-President: R. N. Saboo; Vice-President & Hony. Treasurer: Rev. Fr. J. M. Vergottini, s.J.; Hony. Secretaries: C. C. Vulson; R. Ramakrishna Chettiar.

MALABAR PRODUCE MERCHANTS' ASSOCIATION Silk Street, Calicut 1.

> MALABAR SAW MILLS' ASSOCIATION Kallai, Calicut-3.

MARINE PRODUCTS EXPORT PROMOTION COUNCIL

World Trade Centre, M. G. Road, Ernakulam, Cochin 16.

NAIR SERVICE SOCIETY Perunnai, Changanacherry.

NATANA NIKETANAM Trichur.

Only institution of its kind for imparting advanced and specialised training in the art of Kathakali and Bharat Natvam to girls.

NORTH MALABAR CHAMBER OF COMMERCE Fort Road, Cannanore.

NORTH TRAVANCORE CHAMBER OF COMMERCE Bank of Alwaye Buildings, Alwaye.

> PALGHAT CHAMBER OF COMMERCE Palghat 1.

President: K. Vasudevan; V. President: C. Kuppuswamy; Hony, Secretaries; R. S. P. Swaminathan, K. V. Cherappan.

REGIONAL CHAMBER OF COMMERCE Big Bazar, Palghat.

SAHITYA PRAVARTHAKA CO-OPERATIVE SOCIETY

Kottayam

A co-operative organisation of the authors of Kerala with branches in Trivandrum, Ernakulam and Trichur. Stabilising literary work as a profession is one of the major aims of the society.

SEAFOOD CANNERS' AND FREEZERS' ASSOCIATION OF INDIA

Cochin Company Buildings, XIX/5, Kochangadi, Cochin 5.

SOUTH INDIA PLYWOOD MANUFACTURERS'
ASSOCIATION
Calicut 1.

SOUTH INDIA SOAP MAKERS' ASSOCIATION Oyitty Road, Post Box 74, Calicut 1.

SOUTH MALABAR TIMBER MERCHANTS'
ASSOCIATION
Kallai, Calicut 3.

SPICES EXPORT PROMOTION COUNCIL World Trade Centre, M. G. Road, Ernakulam, Cochin 16.

TEA TRADE ASSOCIATION OF COCHIN 'Sebrof House', P. Box No. 536, Willingdon Island, Cochin 3.

Chairman: R. H. Taylor; Vice-Chairman: G. N. Wadwani; Secretary: N. K. Rajan.

TRAVANCORE CHAMBER OF COMMERCE Alleppey.

TRAVANCORE-COCHIN COIR YARN MERCHANTS'
ASSOCIATION

Rajagopala Mandiram, Mullakkal, Alleppey.

TRAVANCORE COIR MATS AND MATTING MANUFACTURERS' ASSOCIATION Alleddev.

THE TRAVANCORE OIL MILLERS' ASSOCIATION Naga Mahal, Alleppey.

THE TRAVANCORE TILE MANUFACTURERS'
ASSOCIATION
Quilon.

THE WEST COAST EMPLOYERS' FEDERATION Cochin 3.

President: G. S. Menon; Vice-President: R. R. Taylor; Secretary: P. Sethuram.

THE WEST COAST INDUSTRIALISTS
ASSOCIATION
Empress Hotel Road, Kozhikode I.

## ADMINISTRATIVE PERSONNEL

Trivandrum

#### Governor

V. Viswanathan, I.C.S.

## Ministers\*

Chief Minister in Charge of General Adm., All India Services, Integration, Planning, Inter-State River Waters, Law and Legislation, etc., C. Achutha Menon.

Industries and Commerce (including Industrial Co-operatives), Cement, Iron and Steel, Industrial Housing, Handloom and Coir, Sports & Sports Associations, Mining and Geology, Labour, Employment and Training, Factories & Boilers and Forests, P. Ravindran.

Land Revenue, Excise, Food and Civil Supplies, K. T. Jacob.

Finance, Commercial Taxes and Agricultural Income Tax, Lotteries, Chitties and Chit Funds, Registration and Insurance and Information and Publicity, N. K. Seshan.

Irrigation, Co-operation (excluding Industrial Co-operatives), Devaswoms, Flood Control and Anti Sea Erosion, Agriculture, Animal Husbandry and Dairy Development, Harijan Welfare, Colonisation & Settlement and Housing (excluding Industrial Housing), O. Koran.

Education, Home (Police, Election & Anti-corruption), Administration of Civil & Criminal Justice, Wakf & Haj Pilgrimage, Tourism & Tourist Department and Printing & Stationery, C. H. Mohammed Koya.

Panchayats (with allied subjects), Community Development, Fisheries, Village Courts, Jails, Rehabilitation, Social Welfare (excluding Harijan Welfare), Public Works (General Adm., Buildings and Roads), Town Planning, Corporations & Municipalities, Trivandrum City Improvement Trust, K. Ayukkaderkutty Naha.

Health, Ayurveda, Public Health Engineering, Transport & Communications (including Ports, P. & T. and Railways), Motor Vchicles, Archaeology, Museum & Zoo, K. M. George.

### SECRETARIAT

Chief Secretary, M. Gopalan Menon, I.C.S.; Addl. Chief Secretary and Industrial Development Commissioner, K. P. K. Menon, I.A.S.; Special Secretary, Public, G. Bhaskaran Nair, I.A.S.; Secretary, Finance & Planning, P. Velayudhan Nair, I.A.S.; Commissioner for Agricultural Production, N. Chandrabhanu, I.A.S.; Addl. Secretary, Agri., K. V. Ramkrishna Iyer, I.A.S.; Secretary, Development and Development Commissioner, P. K. Abdullah, I.A.S.; Secretary, Health, Zachariah Mathew, I.A.S.; Secretary, Industries, Dr. V. Venkitanarayanan, I.A.S.; Secretary, Revenue, A. K. K. Nambiar, I.A.S.; Secretary, Land Reforms, N. Kaleeswaram, I.A.S.; Secretary, Law, P.

Sankunny Menon; Secretary, Education, Vacant; Secretary, School Education, Smt. Padma Ramachandran, I.A.S.; Secretary, Public Works, R. Gopalaswamy, I.A.S.; Secretary, Legislative Assembly, Dr. R. Prasannan; Secretary, Water & Power, K. P. Viswanathan Nair, I.A.S.; Secretary, Labour & Social Welfare, C. K. Kochukozhy, I.A.S.; Secretary, Home Deptt., S. Narayanaswamy, I.A.S.

### HEADS OF DEPARTMENTS

Director of Agriculture, Dr. M. S. Nair; Director of Animal Husbandry and Veterinary Services, Dr. M. N. Menon; Director of Public Instruction, A. K. Narayanan Nambiar; Director of Industries & Commerce, P. G. Muralidharan, I.A.S.; Director of Health Services, Dr. T. V. Sundaresan; Director of Public Relations, M. Divakaran; Director of Fisheries, Dr. A. I. George; Director of Harijan Welfare, C. K. K. Panicker, I.A.S.; Director, Bureau of Economics and Statistics, Dr. P. K. Gopalakrishnan; Inspector General of Police and Commandant General, Home Guards, M. Gopalan, I.P.S.; Inspector General of Prisons, V. Raghavan Nair; State Port Officer & Marine Adviser to the Govt., P. P. Prasad; Labour Commissioner, M. Dandapani, I.A.S.; Director of Employment and Training, K. Srinivasan, I.A.S.; Registrar of Co-operative Societies, K. Krishnan Nambiar; Director of Collegiate Education, V. Gopalan Nair; Director of Technical Education, T. C. George; Director, Tourist Department, G. Appukuttan Pillai; Director of State Lotteries, Vacant; Chief Conservator of Forests, K. Narayana Pillai; Chief Engineers, T. P. Joseph (Gen., Bldgs., & Roads), K. I. Idiculla (Irrigation), D. Appukuttan Nair (Public Health Engg.); Director of Municipalities, V. Balagangadhara Menon, I.A.S.; Director of Indigenous Medicine, N. Sreedharan; Director of Museums & Zoos, K. Parameswaran Pillai; Directors, N. V. Krishna Warrier (State Lang. Institute), Dr. Jayalakshmi (Public Health Luboratory); Vigilance Commissioner, M. Ramanatha Pillai; Chairman, Public Service Commission, M. K. Devassy.

## CORPORATIONS

Mg. Dir., Kerala Financial Corporation, K. A. Sreedhara Menon; Chairman, Plantation Corpn. of Kerala, Smt. Rosamma Punnoose; Chairman, Kerala Agro-Industries Corpn., E. P. Gopalan; Chairman, Kerala Financial Enterprises Ltd., T. Madhavan Nair; Chairman & Gen. Manager, Kerala State Road Transport Corpn., C. Thomas, I.A.S.; Mg. Dir., Kerala Handloom Finance Corpn., Vacant; Mg. Dir., Small Ind. Corpn., R. Dorai Raj; Chairman, Kerala State Elec. Board, V. Ramachandran, I.A.S.

<sup>\*</sup> The Ministry resigned on August 2, 1970. President's Rule was declared on August 4. The State is to go to poll on Sept. 17 to elect a popular government.

## HIGH COURT

Ernakulam

Chief Justice, P. T. Raman Nayar; Judges, M. Madhavan Nair, T. C. Raghavan, P. Govindan Nair, V. P. Gopalan Nambiar, K. K. Mathew, T. S. Krishnamoorthy Iyer, K. Sadasivan, M. U. Issac, V. Balakrishnan Eradi, E. K. Moidu, V. R. Krishna Iyer, P. Subramonian Potti, P. Narayana Pillai, P. Unnikrishna Kurup; Registrar, S. Siyaraman: Advocate-General, M. M. Abdul Kader.

# LACCADIVE, MINICOY AND AMINDIVI ISLANDS

HEADQUARTERS: Kavaratti Island. Administrator, C. H. Naire, I.A.S.

Secretary, P. M. Joseph.

Area: 11 sq. miles; Pop.: 24,108 (1961 census). Sex ratio: 1,020 females per 1,000 males. Density: 2,192 per sq. mile. Literacy:  $23 \cdot 3$  per cent.

Island	Area	Popu- lation	Density per sq. mile
Minicoy	1.75 sq. miles	4,138	2,360
Kalpeni	1.02 sq. miles	2,613	3,393
Androth	1.67 sq. miles	4,183	2,504
Agatti	1.08 sq. miles	2,411	2,232
Kavaratti	1.35 sq. miles	2,828	2,095
Amini	0.97 sq. mile	3,531	3,640
Kadmat	1.17 sq. miles	1,851	1,582
Chetlat	0.39 sq. mile	953	2,451
Kiltan	0.62 sq. mile	1,520	2,443
Bitra	0.05 sq. mile	80	1,600

The Laccadive, Minicoy and Amindivi group of Islands form a small sprawling group of coral islands in the Arabian Sea, lying between the latitudes of 8° and 12° north lat. and they now constitute a Union Territory under an Administrator.

Ten of the islands are inhabited out of a total number of 20. Minicoy, Kalpeni, Kavaratti, Agatti and Androth lie in the Laccadive group and Amini, Kadmat, Kiltan, Chetlat and Bitra in the Amindivi group.

The islands lie from north to south, Minicoy being the southernmost and Chetlat the northernmost. They are within 20 to 114 miles away from one another except Amini and Kadmat which are only six miles apart. The islands lie 125 to 250 miles off the Kerala coast.

Mainly as a result of isolation, the Islanders have remained backward economically. They have been declared 'Scheduled Tribes' but in reality are far more advanced than tribes elsewhere.

The Judiciary of the Union Territory is under the jurisdiction of the Kerala High Court. The L, M & A Islands (Civil Courts) Regulation which came into force from November 1967, have replaced the traditional courts of Village headmen which functioned in the Territory, by regular courts. There are now two Munsiff Courts and one court of the Subordinate Judge for the administration of Civil Justice, and four Sub-Magistrate's Courts and one District Magistrate's Court for the administration of Criminal Justice in the Territory. The sessions jurisdiction is vested in the Sessions Judge of Calicut in Kerala State.

For the first time one member has been elected to the Lok Sabha from the Islands in the General Election held in Feb. 1967. Till 1967 there was a nominated member from this Territory in the Lok Sabha.

### **ECONOMY**

The main industry on the islands is production of coir.

During the Second Plan about 800 people were trained in improved methods of coir twisting on charkas at the Coir Training-cum-Production centres. A handloom weaving centre was started at Agatti during 1960-61, which has since been shifted to Chetlat island. A few islanders have been trained in weaving and they produce clothing to meet local needs. An oil mill has been started in Kavaratti under the Co-operative Sector, during 1966. A hosiery factory has been set up in Kalpeni. A unit for the manufacture of curled fibre from coconut husks has been established in Androth Island.

### **AGRICULTURE**

The only agriculture on the islands is coconut cultivation. Cultivation of coconuts is now done scientifically with departmental advice and direction. The total area under coconut cultivation is about 2,600 hectares. In order to diversify the agricultural base of the economy, paddy cultivation on an experimental basis has been started, in about 120 acres in Androth and Kalpeni. Intercultivation of other food crops like Maize, Ragi, Tapioca, Sweet Potatoes etc. among coconut groves was also launched in 1968. Oil engine pump sets are being made available to cultivators on hire, for irrigating these intercrops.

# ANIMAL HUSBANDRY

Six poultry units and a model poultry farm were started during the IInd Plan. There are a farm and a veterinary hospital at Kavaratti and a new poultry farm has been opened at Androth Island also. Good quality bucks are supplied to all islands to improve goat rearing. A Dairy Farm has also been opened in Kavaratti Island.

### **FISHERIES**

Fisheries development has been taken on a fairly big scale. On Minicoy, the bonito or mass fishing forms an important and valuable industry. This industry has been extended to Kavaratti and Agatti Islands.

A small unit for canning tuna fish was opened at Agatti Island. Another canning unit is expected to be opened at Minicoy shortly. In order to popularise modern fishing techniques, the Fisheries Department has been giving modern fishery requisites to the people at subsidised rates. The Department has a Boat Building Yard where all types of mechanised boats required in the Territory are now built.

### CO-OPERATION

All the Islands have now Co-operative Societies, which supply the consumer goods needed by the islanders. They also market the islands' products like copra on the mainland markets. During 1967-68 consumer goods worth Rs. 46·5 lakhs were supplied by the co-operative societies and the total value of copra marketed through them came to Rs. 43·7 lakhs. A Co-operative Marketing Federation has been registered in 1966 to centralise marketing activities of the various Co-operative Societies in the Islands.

### PUBLIC HEALTH

Leprosy was on the increase in two islands, Minicoy and Androth which have now been brought under control. A leprosy colony started in 1952 at Androth with the aid of a local committee has been taken over by the Government.

In Minicoy too there is a leprosy colony. At Kadmat another colony was started on Sept. 22, 1960. The spread of this dire disease has been brought under control. Filariasis has also been brought under control. A recent survey has shown that the overall rate of filariasis has come down from 14.8 per cent in 1951 to 6.08 per cent.

There are two hospitals at Kavaratti and Minicoy and seven primary health centres in the Union Territory at present. Each Island has a Medical Officer. In addition to this, there is one Lady Medical Officer each for Minicoy and Kavaratti and another for the remaining Islands.

Medical aid is free in all the islands. Acute cases which cannot be treated in the islands are brought to the mainland and the patient is provided facilities to get free medical aid and the expenses.

### **EDUCATION**

There are four high schools, one higher secondary school, 10 senior basic schools, 18 junior basic schools, six nursery schools in the islands at present. When the Administration took over in 1956 there were only nine incomplete elementary schools. From 1,521 students in 1956-57, the strength has increased to 5,920 in 1967-68. The number of teachers has increased from 14 to 286 in 1967-68.

Education is free at all stages. For those going to colleges scholarships are given and free boarding and lodging facilities are provided. There are at present 118 scholarship holders for post-matriculate courses of which 16 are for M.B.B.S., two for B.Sc. Engineering, one for BSc. Agriculture, 10 for various degree courses, 33 for predegree courses and the remaining for Arts and Science and other professional courses.

### TRANSPORT AND COMMUNICATIONS

The normal communication to the islands is by means of island sailing boats during the months of October to May when the islanders buy all their requirements from the mainland and sell their produce especially copra, coconuts, cadjan leaves, vinegar, palm gur, dried fish and coir in the mainland markets. For the rest of the year the islands are practically cut off from any contact with the mainland.

The Administration has now its own ship "M. V. Laccadives" which costs about Rs. 30 lakhs for service to the islands. She can provide accommodation for 39 passengers and carry 100 tons cargo. One more motor vessel has also been chartered for Laccadives Service. A small power launch has also been purchased by the Administration for inter-island communication of touring officials. One more powerful launch has been procured by the Administration for this purpose.

Every inhabited Island has a wireless station except the tiny Island of Bitra where the population is less than 100.

There are post offices in all the islands and money order facilities have been provided.

### POWER

It is proposed to electrify all the islands by the end of the Fourth Five-Year Plan. So far electricity has been introduced in six islands, viz. Minicoy, Amini, Kavaratti, Agatti, Androth and Kalpeni Islands.

### FOURTH FIVE-YEAR PLAN

The Planning Commission has sanctioned Rs. 40·08 lakhs for development works in Laccadive Islands during 1970-71. The main heads of expenditure are: Agricultural development Rs. 2·98 lakhs, animal husbandry Rs. 0·96 lakh, fisheries Rs. 16·07 lakhs, co-operation Rs. 4·28 lakhs, electricity Rs. 4·95 lakhs, rural industries Rs. 0·84 lakh and transport and communication Rs. 3·67 lakhs.

(See also main article).

# MADHYA PRADESH

Area: 171,221 square miles.

Population (1961): 32·37 million. Mean decennial growth rate 1961: 21·56; density 189; sex ratio 953 females for every 1,000 males; literacy 17·1 per cent. For district population see under "Population".

Main languages spoken in the State are: Hindi, Urdu, Marathi, Rajasthani, Gujarati, Sindhi.

# ADMINISTRATIVE SET-UP

The State has been split up into the following seven divisions namely Bhopal, Bilaspur, Gwalior, Indore, Jabalpur, Raipur and Rewa. The following are the names in italics of the headquarters of the divisions with the area in sq. miles of each division and names of districts (headquarters in brackets) under their charge:—

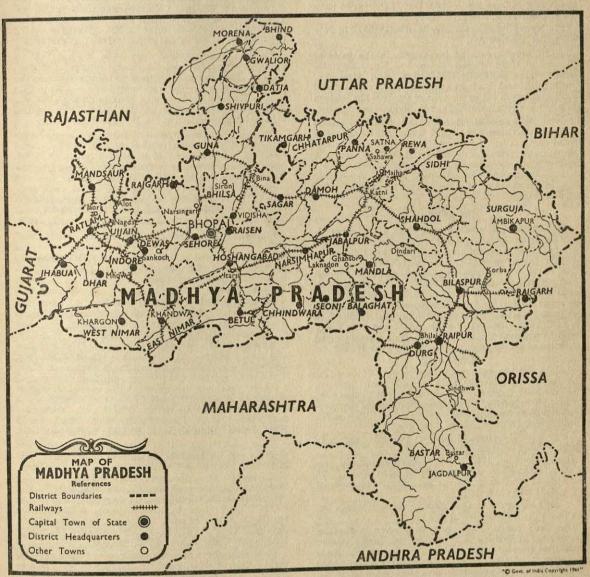
- (1) Bhopal (22,234): Raisen (Raisen); Hoshangabad (Hoshangabad); Betul (Betul); Rajgarh (Rajgarh); Shajapur (Shajapur).
- (2) Bilaspur (21,305): Bilaspur (Bilaspur); Raigarh (Raigarh); Surguja (Ambikapur).
- (3) Gwalior (17,253): Gwalior (Gwalior); Bhind (Bhind); Morena (Morena); Shivpuri (Shivpuri); Guna (Guna); Datia (Datia).

- (4) Indore (27,341): Indore (Indore); Ratlam (Ratlam); Ujjain (Ujjain); Mandsaur (Mandsaur); Dewas (Dewas); Dhar (Dhar); Jhabua (Jhabua); West Nimar (Khargone); East Nimar (Khandwa).
- (5) Jabalpur (29,329): Jabalpur (Jabalpur); Balaghat (Balaghat); Chhindwara (Chhindwara); Seoni (Seoni); Sagar (Sagar); Mandla (Mandla); Damoh (Damoh); Narsimhapur (Narsimhapur).
- (6) Raipur (30,916): Raipur (Raipur); Bastar (Jagdalpur); Durg (Durg).
- (7) Rewa (22,843): Rewa (Rewa); Sidhi (Sidhi); Satna (Satna); Panna (Panna); Chhatarpur (Chhatarpur); Tikamgarh (Tikamgarh); Shahdol (Shahdol).

Number of Districts 43; Number of Tahsils 190; Number of Municipalities 160.

# PANCHAYATS AND SOCIAL WELFARE

The Directorate of Panchayats and Social Welfare comprises three units namely — Panchayats, Social Welfare and Social Education.



"Based upon Survey of India map with the permission of the Surveyor-General of India."

The Madhya Pradesh Panchayat Act 1962 envisages a three-tier system of panchayats, viz., Gram Panchayats at Village Level, Janpada Panchayats at Block Level and Zila Panchayats at District Level.

For the purpose of constituting Gram Panchayats, the State has been divided into 12,801 Gram Sabha areas, comprising 1,81,448 wards. The 12,801 Gram Panchayats have started functioning in 1965. Out of these, two have been converted into Municipal Councils.

2,373 Nyaya Panchayats have been established in July 1966 under the new Act.

The Directorate runs 24 institutions in the fields of Women and Child Welfare, Social and Moral Hygiene, Welfare of the Physically Handicapped and After-care. Four hundred and five institutions are run by non-official agencies. Grant in aid to the tune of Rs. 10 lakhs is given annually to various institutions and individual beneficiaries.

In the field of Social Education, Adult literacy classes are run by the Gram Panchayats, Municipalities and non-official organisations for which they receive grant-in-aid. Grant is also given for libraries and reading rooms. A monthly wall-newspaper and a quarterly magazine for the neo-literates and 'Samaj Sewa' Patrika—a monthly magazine for the workers of the field are also published by this Directorate.

### FOREST

About 66,000 sq.miles constituting about 2/5 of the State's lands are under the management of the Forest Department. Forest area per thousand persons works out to 1,300 acres. Roughly the State contains about 16,000 sq. miles, of 'Sal' forest and the remaining 35,500 sq. miles of mixed forest. Other important species are Bija, Saj, Tinsa, Salai, Semal and Haldu. An amount of Rs. 1,143·26 lakhs was spent on various forest development schemes during last three Five-Year Plans and Plan interval (1966-67 to 1968-69). State trading of tendu leaves has been introduced to augment the revenue. The State forests yielded a revenue of Rs. 25·28 crores during the year 1968-69.

### MINERALS\*

Madhya Pradesh possesses a large variety of minerals. The important minerals produced are coal, iron-ore, manganese-ore, limestone, bauxite, fireclay and china clay, dolomite, corrundum, ochre, asbestos, diaspore, pyrophyllite, felspar, silimanite and vermiculite etc. This is the only State in India producing diamonds.

There were 614 mines of different minerals existing in Madhya Pradesh as on 1.1,1969.

During the year, 1968, the total value of mineral production in the State was Rs. 5,065.83 lakhs about 13.76 per cent of the all India value and an increase of Rs. 164.81 lakhs over 1967.

A short summary of the different major minerals exploited in the State is given below:

Iron-Ore: The chief iron-ore bearing areas in Madhya Pradesh are in Bastar and Durg districts, though smaller quantities are also found in Jabalpur district. The State Department of Geology and Mining have investigated the iron-ore deposits occurring near the villages of Santao and Panihar in Gwalior district, and in Kanwara area and in Sehora tahsil of Jabalpur district. Export of iron-ore to Japan has started from the Bailadila Iron-ore mines in district Bastar. Madhya Pradesh produced 55.69 lakh metric tonnes of iron-ore valued at Rs. 511.37 lakhs in 1968 against 47.62 lakh M. T. valued at Rs. 367.06 lakhs in 1967.

Coal: The total estimated coal reserves of Madhya Pradesh are 8,210 million tonnes, out of which about 2,000 million tonnes have been proved. Coal is at present exploited in Surguja, Bilaspur, Raigarh, Chhindwara, Shahdol, Sidhi and Betul districts under public and private sectors. In 1967 the quantity of coal produced was 107-65 lakh tonnes, valued at Rs. 3167-87 lakhs against 115-86 lakh tonnes valued at Rs. 3.794-61 lakhs in 1968.

Manganese-Ore: Manganese-ore deposits in the State are confined to Balaghat, Chhindwara and Jhabua districts. The Manganese ore production in the State during 1967 was 2.97 lakh tonnes valued at Rs. 326.58 lakhs compared to 2.60 lakh tonnes valued at Rs. 297.18 lakhs in 1968.

Bauxite: The important deposits in Madhya Pradesh are in Jabalpur, Shahdol, Bilaspur, Surguja, Balaghat, Mandla, Durg, Raigarh, Shivpuri and Guna districts. The bauxite reserves have been estimated at about 33 million tonnes. The total production of bauxite during 1968 was 1.81 lakh tonnes valued at Rs. 18.54 lakhs, against 1.74 lakh tonnes valued at Rs. 19.02 lakhs in 1967.

Diamond: At present, district Panna is the only centre of diamond production in the country. Occurrence of diamonds are also reported in district Satna. Both industrial and gem variety of diamonds are mined from the Panna diamond fields. M/s. National Mineral Development Corporation are operating their mines on a large scale in this area. During the year 1968, production of diamonds was 8,764 carats valued at Rs. 32.69 lakhs as compared to 7.626 carats valued at Rs. 31.67 lakhs in 1967.

Limestone: Vast reserves of limestone are found in M. P. At present limestone is produced mainly in Bilaspur, Durg, Satna, Jabalpur, Jhabua, Mandsaur and Morena districts of Madhya Pradesh. In 1968, 37·35 lakh tonnes of limestone was produced in the State valued at Rs. 350·97 lakhs.

Dolomite: Marbles occur in Jabalpur, Bilaspur and Dhar districts of Madhya Pradesh. The dolomites of Baraduar, Akaltara, Jairamnagar, Relia, Chhatona, Hirri etc. in Bilaspur district some of which are of flux grade, are being exploited to meet the requirements of iron and steel and glass industries. The dolomite is mined at Bilaspur, Jhabua, Hoshangabad and Chhindwara districts of M. P. The State Department of Geology and Mining has carried out survey for dolomite deposit in the east of Jagdalpur in district Bastar. All grade dolomite reserves of about 47.8 million tonnes are estimated in this area during the field season 1968-69. The production of dolomite was 4.68 lakhs tonnes valued at Rs. 42.83 lakhs in the year 1968.

Some minerals other than those given above, districts of occurrence in brackets, production in tonnes in 1968 and their value in Rs. respectively are as follows: Chinaclay (Durg, Jabalpur); 7,214, 58,000; Fire-clay (Jabalpur, Chhindwara, Bilaspur, Satna, Shahdol); 76,010, 814,000; Ochre (Jabalpur Satna, Gwalior, Panna and Rewa); 8,123, 214,000; Pyrophyllite (Shivpuri); 6,623, 37,000; Quartz & Silica (Morena, Dewas, Satna, Rewa, Durg, Jabalpur, Vidisha); 37,655, 368,000; Steatite (Jabalpur, Narsingpur & Mandsaur); 4,963, 128,000.

Besides the above minerals, occurrence of mica, gypsum, beryl, shale, marble, graphite and galena etc. is also found in Madhya Pradesh.

# TRANSPORT (As on 31st August 1968)

The Madhya Pradesh State Road Transport Corporation is operating bus services on 840 routes by pressing into service 1,537 vehicles. These vehicles cover a daily run of 3,30,932 kms. and carry approximately 3 lakh passengers daily.

Capital investment: Rs. 1.59 crores; net loss as at the end of March 1969: Rs. 1.34 crores.

<sup>\*</sup> Madhya Pradesh accounted for 13.88 per cent of the total mineral production in 1969-70 and earned a revenue of over Rs. 428 lakhs.

# MEDIUM AND LARGE-SCALE INDUSTRY

Main medium and large-scale industries of the State with location in brackets:—

Cotton Textiles (Indore 7, Gwalior 2, Uijain 4, Mandsaur 1, Dewas 1, Ratlam 1, Bhopal 1, Burhanpur 1, Rajnand-gaon 1, Bilaspur 1, Khandwa 1, Sanawad 1); Newsprint Paper Mill (Nepanagar); Cement (Banmore, Kymore, Satna, Jamul); Sugar (Jaora, Dalauda, Mehidpur, Dabra. Schore); Potteries (Gwalior, Ratlam, Jabalpur); Refractories (Jabalpur, Katni, Newar); Iron and Steel (Bhilai); Heavy Electrical Equipment (Bhopal); Jute Mill (Raigarh); Art Silk fabrics (Indore, Gwalior, Ujjain, Nagda); Staple, fabric Yarn (Nagda); Viscose Staple Fibre (Nagda); Sulphuric Acid (Nagda, Kumhari); Superphosphate (Kumhari): Carbon-di-Sulphide and Anhydrous Sodium Sulphate (Nagda); Glue (Bhopal); Asbestos Cement Sheets (Katni); Roller Flour Mill (Indore, Ujjain, Bhopal, Ganj Machinery (Gwalior); Biscuits (Indore, Gwalior); Textile Machinery (Gwalior); Welding Electrodes (Raipur, Indore); Power Driven Pumps (Dewas); Steel Castings (Indore, Kumhari, Raipur); Re-rolling Mill (Kumhari, Raipur, Indore, Ujjain, Bangrod); Vegetable Oil (Dewas, Khandwa, Ujjain, Ganj Basoda); Vanaspati (Indore); Alcohol (Ratlam, Burwaha); Valves (Bhopal); Densified Wood (Bhopal); Cables (Satna); Police Boots (Morar); Straw Board (Bhopal, Ratlam); Glass (Jabalpur); Starch (Mandsaur).

The Cotton Textile Industry in the State has 13,768 looms and 6,08,431 spindles in 22 mills (18 composite, and 4 spinning).

The State-owned Cotton Spinning Mill at Sanawad has been licensed to expand their capacity from 12,500 spindles to 25,000 spindles and this is in progress. A licence has also been given for a co-operative Cotton Spinning Mill for 12,500 spindles at Burhanpur.

The biggest cement factory in the country is situated at Kymore near Katni. Other cement factories are at Banmore, Satna and Jamul. Messrs. Audh Sugar Mills have been licensed to set up a unit at Maihar, District Satna, to produce two lakh tonnes of cement per year. Work is fast progressing.

The country's only Newsprint paper mill is situated at Nepa Nagar with a rated capacity of 30,000 tonnes per annum. A licence has been given to expand its capacity upto 75,000 tonnes per year of newsprint and this is under progress.

The paper plant, the biggest in Asia having a single unit capacity of 200 tonnes of paper daily has been set up at Amlai in District Shahdol.

The Public Sector Steel Plant has also been licensed to expand the capacity from  $2 \cdot 5$  million tonnes per annum to  $3 \cdot 2$  million tonnes.

The State-owned Ratlam Alcohol Plant has been licensed to set up a unit to manufacture Carbon-di-Oxide. There is a cable factory at Satna with an investment of Rs. 175 lakhs.

A steel casting factory with 3,000 tonnes capacity has commenced production at Kumhari (Durg).

Messrs. Indore Wire Co. Ltd., Indore licensed to produce 3,000 tonnes of high tensile steel wire and 900 tonnes of mild steel wire per annum respectively has commenced production.

A flour mill of 50 tonnes daily capacity has also gone into production at Manglia (Indore). Another flour mill of 50 tonnes daily capacity is being set up at Gwalior by M/s. M. P. Flour Mills.

Gelatine factory having a production capacity of 1,200 tonnes per annum of gelatine is ready to go into production at Jabalpur.

A moped (Scooter) unit has been established with German collaboration and is almost complete at Gwalior. The unit will produce 7,500 Nos. of mopeds per year and has applied for expansion.

The other important industries for which licences have been given under the Industries (Dev. & Reg.) Act, 1951 for this State are:—Staple fibre manufacturing plant (Nagda), A.C.S.R. Conductors (Gwalior), Transmission Towers (Indore) and Oxygen Gas (Indore, Bhopal).

# **NEW INDUSTRIES (1970)**

The Government of India has recently sanctioned a one-lakh tonne alumina plant at Korba with an investment of Rs. 33·50 crores. The Cement Corporation of India is setting up a Cement plant of 2 lakh tonnes at Mandhar in Raipur district. The M.P. Industries Corporation has been granted a licence for the expansion of its existing textile mills at Sanawad. The Corporation has also proposed to set up a plant for the manufacture of caustic soda with a capacity of 27,000 tonnes and a B.H.C. plant with a capacity of 3,000 tonnes per annum at Korba. The Nepa Mills has expanded the capacity from 33,000 tonnes to 75,000 tonnes per year. A spinning mill of 25,000 spindles at Bastar is under consideration.

In the private sector, the Century Chemicals are putting up a Cement plant at Tilda in Raipur district. Kirloskar Bros., manufacturing pumps at Dewas are to expand from 20,000 to 40,000 per annum. Bhandari of Kanpur are setting up a plant for the manufacture of 12,000 tonnes of high carbon and alloy steel wires at Bhilai. Bilaspur Spinning Mills have been granted a licence for expansion to 25,000 spindles at Bilaspur. A nylon filament yarn plant is being set up at Ujjain by Shree Synthetics at an estimated cost of Rs. 7 crores. A Sugar Mill in the co-operative sector is being set up at Morena. M/s. Synthelves Ltd., Calcutta is setting up an average Nylon Yarn Plant of 3 tonnes near Ujjain.

# COTTAGE INDUSTRIES

The State is also famous for traditional village and home crafts. The Handloom Industry has earned a good reputation for its Chanderi and Maheshwari Saris, Kosa Silk and other traditional fabrics. The well-known Handlerafts are printing (Chanderi, Handa), leather toys, papier mache, lacquerware articles, rug dolls, Sari supari works, soft stone work, Bhopal zari purses, cow dung toys of Sheopur, stone carving at Gwalior, bell metal articles of Jagdalpur, leather crafts, screw pine articles, palm leaf articles, glass bead, lac ornaments and others.

Main Cottage Industries in the State with location in brackets: Handloom (1,00,000 looms) spread all over the State but best developed at Chanderi, Maheshwar, Silk (Raigarh Champa, Bilaspur, Surguja); Mulberry (Indore, Jhabua, Depalpur, Dhar); Fine sarees (Chanderi, Maheshwar, Burhanpur). Wood work and lacquerware (Sheopur, Sabelgarh, Budhni, Rewa, Gwalior); Wooden toys (Rewa, Bhopal, Gwalior, Ratlam); Soft-stone (Jabalpur, Chhatarpur); Lac (Seoni, Raipur, Bilaspur, Umeria and Rewa); Saw Milling (Betul, Bhopal, Balaghat, Bilaspur, Raipur, Indore, Jabalpur, Sagar and Mandla); Brassware (Balaghat, Chhindwara, Indore, Gwalier, Raipur and Chhatarpur); Textile hand printing (Ujjain, Mandsaur, Morena, Indore, Hoshangabad); Diamond cutting and polishing (Panna); Papier Mache (Gwalior, Ujjain, Indore); Zari embroidery (Bhopal); Art Metalware (Bastar, Betul, Hoshangabad, Satna, Mandla,); leather toys (Indore).

# LIVESTOCK (1967-68)

Cattle 2,31,75,299; Buffaloes 55,87,532; Sheep 9,81,451; Goats 57,64,525; Horses & Ponies 1,37,845; Other Livestock (Mules, Donkeys, and Pigs) 3,84,941; Total livestock 3,60,31,593.

Poultry 39,64,956.

# AGRICULTURE (1967-68)

Total net area sown: 17,797,469 hectares; Total area under food crops: 16,185,827 hectares; Total net area irrigated: 1,143,052 hectares.

Production in tonnes: \* Rice 3,167,529; Wheat 1,880,810; Jowar (Kharif & Rabi) 2,079,582; Maize 670,702; Bajra 149,324; Barley 168,014; Gram; 827,105; Kodon-Kutki 314,518; Tur (Arhar) 308,372; Moong & Moth (Kharif & Rabi) 52,052; Urad (Kharif & Rabi) 127,202; Kulthi (Kharif & Rabi) 47,198; Lac (Tiwra) 79,253; Masur 90,260.

## CASH CROPS

Production in tonnes:\* Sugarcane (in terms of Gur) 95,051; Groundnut 335,339; Linseed 135,366; Rape and Mustard 39,857; Castor 1,366; Tobacco 1,655; Nigarseed 44,347; Cotton (in bales of 180 kgs.) 315,309.

### CEILING ON AGRICULTURAL HOLDINGS

The achievements made in the implementation of the M.P. Ceiling on Agricultural Holdings Act, 1960, upto 30th September 1969 are as below:

32,540 cases have been instituted till September 1969 and 31,436 cases have been disposed off so far leaving a balance of 1,104 cases. 66,644 acres of land has been vested in the State upto July 1969 according to Section 12 of the Act out of which possession of 41,242 acres has been taken. Out of 41,242 acres land 9,130 acres have been allotted to landless persons.

Compensation of surplus land as provided in Section 16 of the Act has been determined to the tune of Rs. 22,37,425.

### ELECTRICITY

Madhya Pradesh in its Fourth Five Year Plan proposes to spend some Rs. 8,200 lakhs to install 55 MW of generating capacity, to erect about 617 Kms. of new E.H.T. transmission lines and to electrify 1,00,000 irrigation pumps.

A brief description of the continuing schemes of the Third Plan and new schemes of the Fourth Plan is given as under.

# Korba Thermal Station

The Second Plan witnessed the erection and commissioning of 90,000 kW power station at Korba to which a 10,000 kW unit was added in July 1963. In the Third Plan, 200 MW extension scheme was taken in hand, with Russian aid. All the four units, each of 50 MW, have been commissioned.

# Satpura Thermal Station

Satpura Thermal Station, will have an installed capacity of 312·5 MW. Of the five units each of 62·5 MW, four units have gone in operation and the fifth is expected to be commissioned by the end of the current financial year.

# Amarkantak (Birsinghpur) Thermal Station

This 60 MW (2  $\times$  30 MW) station awaits further expansion upto 115 MW during the Fourth Plan, with one additional unit of 55 MW.

# Chambal Hydel Projects

Madhya Pradesh and Rajasthan are equal partners in harnessing the power potentials of Chambal. It will have an installed capacity of nearly 400 MW, besides providing water for irrigation to a vast area on both sides of the river. It is being implemented in three stages.

# Stage I-Gandhisagar Hydel Station

Under Stage I, a power station at Gandhisagar Dam in M.P. has been completed. The station has an installed capacity of 115 MW ( $5 \times 23 \text{ MW}$ ).

## Stage II-Ranapratap Sagar

This will be the largest power station of the Chambal basin with an installed capacity of 172 MW (4 × 43 MW). All the four units of 43 MW each have been commissioned.

## Stage III-Jawahar Sagar

This scheme when completed will yield 99 MW of power (3 sets of 33 MW each). Work on it is expected to become operative in 1970-71.

### Transmission Grid

3,830 kilometres of main transmission line have been completed and energised. Another 220 Kms. are under erection, these lines are Amarkantak-Korba 220 KV, and Damoh Bijawar 132 KV.

The Fourth Plan will further strengthen this system by another 617 Kms. of E.H.T. lines. Some important lines proposed for implementation, during the Fourth Plan period are Gwalior-Pichhore, Ujjain-Ratlam-Nagda and Bhilai-Balaghat-Seoni 132 KV (225 Kms.). Fourth Plan proposals also include providing second circuit on some 615 Kms. of E.H.T. lines.

The sub-transmission system of 11/33 KV lines is 14,000 Kms. long. Another 19,200 Kms. are proposed to be added to it during the 4th Plan.

# Rural Electrification and Lift Irrigation Schemes

Rural electrification and power irrigation (lift irrigation) schemes are closely linked in the State. Till the end of 1968-69, 2,973 villages and 31,469 irrigation pumps had been electrified. 1,00,000 pumps and 6,500 villages are proposed for electrification during the IV Plan.

Particulars	End of First Plan	End of Second Plan	End of Third Plan	1968-6 end	9 Fourth Plan Target
Installed capacity in		D will really	To be character	II Sec	
MW	81 - 6	206	287 - 5	713	825
E.H.T. Tran sion lines	smis-				
(over 66 kV		1,137	2,594	3,674	4,747
Yearly generation in	B-				
M. kWh	98.7	403.5	1,143.3	1,982	3,648
No. of con- sumers in					
thousands	51 · 3	121.5	275.9	405	600
Per capita consumption					
(kWh)	6.15	14	30	49	85.5
No. of towns/ villages	OF SHE				
electrified	142	538	1,311	2,973	9,473
Number of Irrigation					
Consumers	265	1,822	7,309	31,469	1,31,469

<sup>\*</sup> Production figures include production of non-reporting area for the respective year.

## EDUCATION

The figures relate to 1967-68:

Total No. of Degree Colleges: 176 (Govt. colleges 68, Private 108).

Total No. of Teachers Training Colleges: 120 (106 B.T. Institutions, 11 Govt. Colleges of Education, 3 non-P.G.B.T. Colleges).

Total No. of Professional Colleges: 28.

(Medical 6, Engineering 9, Agriculture 6, Veterinary 3, Ayurvedic 3).

Polytechnics: 24 (14 Govt., 10 non-Govt.).

Number of Universities: 8.

### PUBLIC HEALTH

Figures for 1968-69:

Common diseases in the State: Malaria, Filaria, Tuberculosis, Venereal diseases, Dysentery, Diarrhoea, Gastroenteritis and Leprosy.

Total No. of patients treated in the State during 1968: 3,45,106 (Indoor); 1,12,45,035 (Outdoor).

Number of Medical Institutions and beds at the end of the year 1968:

	Number of Hospitals & Dispensaries		527
	Number of beds	1	14,635
	Number of Medical Colleges		6
	No. of allopathic hospitals	100.5	148
	No. of Primary Health Centres		415
		(457 sar	ctioned)
	No. of T.B. Hospitals & T.B. Sanatoria		8
	No. of Leprosy Homes and Hospitals		8
	No. of Mental Hospitals		2
C	ther Services:		
	No. of T.B. clinics		27
	No. of Leprosy clinics		191
	No. of Leprosy Control units		6
	No. of Leprosy S. E. T. Centres	1000	40
	No. of M. C. W. Centres		151
	No. of Dental clinics		15
	No. of Family Planning clinics		521
	No. of Family Planning Training Centres		3*
	No. of Cancer Hospitals		1
	No. of Dental Colleges		1
	No. of Nursing Colleges		1
	No. of Nurses training Centres	150000	11

# LABOUR

Position as on 31st Dec. 1968:

Number of registered factories (including 22 defence factories): 2,570. No. of working factories 2,389.

Number of workers employed in registered factories: 1,91,300 (excluding 22 defence factories).

Important industries with the number of units (employing more than 100 workers), and workers employed respectively in each industry within brackets:

Processes allied to Agriculture 18(3066); Sugar 4(2922); Rice 1(114); Oil (including Hydrogenerated oil) 6(1416); Flour 1(117); Bakery 1(725); Dal Nil; Beverages 2(370); Tobacco 11(2123); Textile (Cotton, Jute, Silk, Woollen, Carpet weaving etc. Mills) 28(46,760); Wood and Cork except furniture 5(1813); Paper and Paper Products 7(3816); Printing, Publishing and Allied Industries 5(1362); Rubber Products 1(196); Chemicals and Chemical Products 7(2581); Potteries 7(2390); Cement 4(4221); Asbestos 1(1273); Non-metallic Mineral Products (Bricks and Tiles Stone dressing and crushing and others 4(910); Basic Metal Industries (Iron & Steel, Rolling into Basic Forms and Rough casting) 27(15,308); Metal Products (except Machinery and Transport Equipment) 3(700); Machinery (Except Electrical Machinery) 10(4078); Electrical Machinery, Appliances, Apparatus and supplies 4(12,728); Transport Equipment 8(1,757); Electricity, Gas and Steam 7(2,980); Starch 1(250).

On December 31, 1967, the number of registered trade unions was 581 (excluding cancelled unions) out of which 403 unions had submitted their returns for the period January to December 1967. After scrutiny 243 returns had been accepted by the Registrar of Trade Unions, membership of which came to 88,092.

Total number of employments covered under the Minimum Wages Act: 13 (1968).

Approximate number of workers employed in the above employments: 7,21,361.

Important categories of employments under the Minimum Wages Act and the approximate number of workers employed in each category:

Rice, flour and dal mills 9,759; Tobacco (including Bidi making) manufacturing 2,44,178; Oil mill 4,128; Local authority 14,352; Construction or maintenance of roads or in building operation 21,402; Stone breaking or stone crushing 2,998; Public motor transport 20,559; Shops and Commercial Establishments 68,194; Saw Mills 4,832; Cotton, ginning and pressing 1,550; Printing Press 3,138.

The Madhya Pradesh Shops & Establishments Act, 1958 was in force in 58 towns and four local areas in the State on December 31, 1968.

There were 1,08,210 registered establishments out of which 8,780 were found closed and 99,430 live establishments left at the end of 1968.

Provident Fund Scheme (December 1968)-

Number of factories covered by the Employees' Provident Fund Scheme (December 1968)—1,218. Number of factories exempted—52. Number of factories partially exempted—12, total number of workers contributing under the Scheme—2,14,921.

Number of family units (one family unit assumed to be comprised of three adults and one minor) covered by the Employees' State Insurance Scheme (December 1968)—1,02,666. The Scheme was in operation in Banmore, Bhopal, Burhanpur, Dewas, Gwalior, Indore, Jabalpur, Mandsaur, Nagda, Raigarh, Raipur, Rajnandgaon, Ratlam, Satna and Ujjain.

<sup>\*</sup> The number of Family Welfare Planning Centres sanctioned by the Govt, of Maharashtia during the years 1968-69 and 1969-70 was 26 and 4 respectively. The total expenditure incurred was Rs. 2-42 lakhs.

# SOME IMPORTANT IRRIGATION SCHEMES

Name of Project	Location District	When started	When to be complete	Capacity d M. Cft.	ior	Total cost (Rs. lakhs)	Estimate rise in output after com pletion (Tons)	Romanha
Tawa Project	. Hoshangabad	1962	1975-76 (Probable)	73,703 · 52	7,50,000	3,414.00	1,87,500	( C. 10) ( C. 10)
Barna Project .	. Raisen	1960	1972-73 (Probable)	14,347.00	1,64,160	700.00	41,040	
Hasdeo Barrage	. Bilaspur	1961	1967	2,047.00		986.00	_	
Chandrasekhar .	. Dewas	1958	1971	1,006.13	12,000	163.07	3,000	
Bilanadi	. Sagar	1956	1972	1,834.71	32,000	267.66	8,000	
	. Balaghat	1957	1968	479.16	11,150	214 · 20	2,788	
Chillar Project	. Shajapur	1960	1969	1,098.92	13,000	141.86	3,250	
	. Betul	1954	1969	528.37	5,427	102.00*	1,350	*includes cost of repairs & strengthening
Remodelling of Maha			Zara I	40 TO T				
	Raipur	1957		Wier work	1,40,000	282.69	35,000	
(Satak & Segwal)	W. Nimar	1956	1970–71 (Segwal) 1968 (Satak)	648.88	14,500	113.32	2,375	
Chambal Project	Bhind, More- na & Man- dsaur	1953	1970-71	2,44,400	7,00,000*	4,853.25	1,75,000	*Power 80,000 KW
Saroda (Development)		1953	1966	1,066	18,168	166.73	4,542	
	Bastar	1955	1969	10,012	*	388-87		*Feeder Tank to Mahanadi Canal.

# UNIVERSITIES

# Awadesh Pratap Singh University Rewa (M.P.).

A teaching, affiliating and residential University. At present it is only an affiliating University

Chancellor: K. C. Reddy, Governor of Madhya Pradesh; Vice-Chancellor: L. O. Joshi, I. A. S., Registrar: B. R. B. Mathur, M. A.

Territorial jurisdiction of the University: Rewa, Sidhi, Satna, Shahdol, Panna, Chhatarpur and Tikamgarh revenue districts of Madhya Pradesh.

Number of constituent colleges 10; Number of affiliated colleges 29; Number of faculties 7; Number of students 16,186.

# BUDGET ESTIMATES FOR 1969-70.

Total Income Rs. 15,07,700. Total Expenditure Rs. 10,69 953.

# Indira Kala Sangit Vishwavidyalaya Khairagarh

Chancellor: K. C. Reddy, B.A., B.L., LL.D., Governor, Madhya Pradesh.

Pro-Chancellors: J. N. Awasthi; Raja Bahadur Birendra Bahadur Singh; Rani Padmavati Devi.

Rector: Vacant; Treasurer: G. C. Jain; Registrar: D. K. Ghosh.

It is a teaching, affiliating, examining and residential University of Music and Fine Arts.

Number of affiliated Colleges: 16.

Number of students in the University: 1,901.

The media of instruction for all classes are Marathi, Hindi and English.

From the examination of December, 1968, private candidates also are admitted to University examinations.

# Indore University

Indore.

It began as an affiliating University, but is intended to develop as a federal University with teaching departments: Education — Foreign Languages with a certificate Course in Russian language. Business Management. University departments of Physics, Mathematics, Statistics and Economics are also being established.

Chancellor: K. C. Reddy, B.A., B.L., LL.D., Governor of M.P.; Vice-Chancellor: K. L. Joshi, M.A. (London); Registrar: G. N. Tandan, M.A.

No. of affiliated colleges: 22.

University Teaching Depts. : 3.

No. of students in the University: 19,736.

# Jabalpur University

Jabalpur.

It is a teaching and affiliating University.

Chancellor: K. C. Reddy, B.A., B.L., LL.D., Governor of Madhya Pradesh; Vice-Chancellor, Dr. Raj Bali Pandey, M.A., D.Litt.; Rector and Treasurer, Dr. S. C. Barat; Registrar: S. C. Seth, M.A.

Number of affiliated colleges: 16; Number of constituent colleges 7; Number of University Departments of Post-Graduate Studies and Research 17; Number of students in the Colleges and University Departments 16,038.

# Jawaharlal Nehru Krishi Vishwavidyalaya Jabalpur.

Chancellor: K. C. Reddy, Governor, Madhya Pradesh; Vice-Chancellor: Dr. L. S. Negi; Registrar: T. C. Masih.

# BUDGET (1969-70)

Receipts: Rs. 233·20 lakhs. Expenditure: Rs. 244·45 lakhs. (On revenue and capital expenditure only.)

# Iiwaji University

Gwalior.

It is a teaching, affiliating and residential University. Chancellor: K. C. Reddy, Governor, Madhya Pradesh; Vice-Chancellor: S. S. Bhandarkar, M.A.; Registrar: A. K. Bhattacharya.

No. of affiliated colleges: 28 (as on 30-6-'69). No. of constituent colleges: 9 (as on 30-6-'69).

### BUDGET (1969-70)

Receipts: Rs. 52,26,900. Expenditure: Rs. 53,70,000.

## Ravishankar University

Raipur.

Chancellor: K. C. Reddy, Governor, Madhya Pradesh; Vice-Chancellor: B. L. Pandey, M.A., LL.B. (Allahabad), I.A.S. (Redd.): Registrar: K. K. Srivastava.

Constituent Colleges: 11.
Affiliated Colleges: 38.
Students (1968-69): 21,040.

Saugar University

Chancellor: Governor of Madhya Pradesh; Pro-Chancellor: Minister for Education, Madhya Pradesh; Vice-Chancellor: Prof. Ishwar Chandra; Registrar: S. J. Naidu, B.A., LL.B. (I.A.S., Retd.).

It is a teaching and affiliating University.

Number of affiliated colleges: 44.

Number of students: Teaching Departments: 3,415.

Affiliated Colleges: 9.817.

# Vikram University

(Uijain)

It is an affiliating and teaching University. The media of instruction are English and Hindi.

Chancellor: K. C. Reddy, B.A., B.L., LL.D., Governor of Madhya Pradesh; Vice-Chancellor: Dr. Shiv Mangal Singh 'Suman'; Registrar: V. Shankaran, M.A.

Number of University Schools of Studies: 12. Number of Constituent Colleges: 31. Number of Affiliated Colleges: 20. University Teaching Department: 1. Number of Students (1968-69): 37,754 (Regd.).

## **ASSOCIATIONS**

# ADIWASI CHAMBER OF COMMERCE Alirajpur.

BHOPAL CHAMBER OF COMMERCE & INDUSTRIES

Bhopal

# BIRLA RESEARCH INSTITUTE FOR APPLIED SCIENCES

Birlagram-Nagda (M.P.)

Objects: To belp national industrial growth through research.

Director-General: Dr. S. M. Mitra.

CENTRAL INDIA CHAMBER OF COMMERCE & INDUSTRIES

Bambakhana, Ujjain.

CENTRAL INDIA COTTON ASSOCIATION LTD. Chhota Sarafa, Ujjain.

THE CHAMBER OF COMMERCE Ratlam.

FEDERATION OF ALL INDIA LOCAL AUTHORITIES

"Chandralok", Satna.

THE INDORE AUTOMOBILE DEALERS
ASSOCIATION

C/o Fairdeal Motors, Bombay-Agra Road, Indore.

INDUSTRIAL ESTATE MANUFACTURERS'
ASSOCIATION

Industrial Estate, Polo Ground, Indore 3.

INSTITUTE OF PLANT INDUSTRY Old Residency Area, Indore.

JIWAJI INDUSTRIAL RESEARCH LABORATORY Tansen Road, Gwalior 2.

# MADHYA PRADESH CHAMBER OF COMMERCE AND INDUSTRY

"Chamber Bhavan", Dharma Mandir Road, Lashkar, Gwalior 1.

President: D. P. Mandelia; Vice-President: B. B. Bhargava; Hony. Secretary: L. G. Vaishya.

## MADHYA PRADESH ANAJ TILHAN VYAPARI MAHASANGH

Hanumanganj, Bhopal.

President: Basant Kumar; Gen. Secy.: Das Rathi.

MADHYA PRADESH ORGANISATION OF INDUSTRIES

33, Malviyanagar, Bhopal.

## MADHYA PRADESH TEXTILE MILLS ASSOCIATION

8. South Tukoganj, Street No. 1, Indore.

MADHYA PRADESH STATE COUNCIL FOR CHILD WELFARE

Secretariat Building, Bhopal.

MADHYA PRADESH WELFARE ASSOCIATION FOR THE BLIND 83, Bozanket Market, Indore.

OCHAL CHAMPER OF COMM

MAHAKOSHAL CHAMBER OF COMMERCE Jawaharganj, Jabalpur. THE MALWA CHAMBER OF COMMERCE 57, Sitlamata Bazar, Indore City.

M. P. READYMADE VASTRA VIKRETA SANGH M. G. Road, Indore.

> M, P. SUGAR MILLS' ASSOCIATION Jail Road, Indore.

NARBADA SAMBHAG ANAJ TILHAN VYAVASAYEE SANGH Pipariya (Dt. Hoshangabad). RAIPUR CHAMBER OF COMMERCE & INDUSTRIES
Sadar Bazar, Raipur.

SCINDIA ORIENTAL INSTITUTE University Road, Ujiain.

SHRI GOVINDRAM SEKSARIA TECHNOLOGICAL INSTITUTE

Opposite Nehru Park, Indore.

THE TRIBAL RESEARCH INSTITUTE Chbindwara.

# ADMINISTRATIVE PERSONNEL

Bhopal

Governor K. C. REDDY

### Ministers

Chief Minister in charge of General Adm., Home, Publicity, Languages, Irrigation & Electricity, Shyama Charan Shukla; Local Government (Urban), Hari Prasad Chaturvedi; Commerce and Industry, Vasant Rao Wickey; Forest, Natural Resources, Public Health Engineering, Shatrughan Singh Tiwari; Education, Jagdish Narain Awasthi; Harijan Weifare & Transport, Vedram; Revenue, Survey and Settlement, Land Records, Land Reforms, Law, Krishnapal Singh; Labour, Housing, Gangaram Tiwari; Tribal Weifare, Bhanu Pratap Singh Komakhan; Public Health and Jail, Dr. Devi Singh; Local Government (Rural), Social Welfare, Shiv Bhanu Solanki; Public Works, Mahant Bisahudas; Agriculture, Food, Civil Supplies, Bhagwat Sabu; Planning and Development, Economics and Statistics, Co-operation, Rehabilitation, Krishna Narain Pradhan; Planning and Development, Ganesh Ram Anant.

# Ministers of State

Education, Bhopalrao Pawar; Home, Nandkishore Sharma; Education, Social Welfare, Shrimati Sushila Dixit; Electricity and Irrigation, Kumari Vimla Verma; Irrigation, Jhumaklal Bhedia; Forest, Parasram Dhurve; Separate Revenue, Local Government (Rural), Hariprasad Shukla; Tribal Welfare, Pyarelal; Public Health, Cooperation, Chitrakant Jaiswal; Home, Brijkishore Pateria; Irrigation, Chandmal Lunia; Agriculture and Public Works, Madhavlal Dube; Revenue, Survey and Settlement, Land Records, Land Reforms, Law, Kedarnath Rawat; Commerce and Industry, Jugalkishore Bajaj; Local Government (Urban), Jail, Prabhu Narain Tandon; Housing, Waaf, Mohammed Bashir Khan; Publicity, Nandram Das Balkavi Bairagi.

## Deputy Ministers

Tribal Welfare, Prabhudayal Gahalot, Deo Sai; Local Government (Rural), Kanhaiyalal Kosariya; Harijan Welfare, Chhotelal.

# Parliamentary Secretaries

Public Health, Lakshman Ram; Electricity, Sitaram Sadho; Public Works, Ram Prasad Singh; Forest, Fateh Singh Wadiva.

# Secretaries

Controller of State Income and Expenditure, R. C. V. P. Noronha; Chief Secretary & Vigilance Commissioner, R. P. Nayak; Addl. Chief Secretary, Home, M. S. Chaudhari; Spl. Secretary, Home, R. C. Roy; Spl. Secretary, Revenue, M. A. Khan; Spl. Secretary, Planning & Development, B. P. Pathak; Spl. Secretary, Tribal Welfare, T. C. A. Ramanujachari; Secretary, Education, L. O. Joshi; Secretary, Finance, R. N. Malhotra; Secretary, Public Health Deptt., B. K. Dube; Secretary, P. W. D., B. Vora; Secretary, Commercial & Industries, Devi Sahai; Secretary, Agriculture, R. P. Mishra; Secretary, Irrigation, S. B. Lal; Secretary, Law, S. V. Pagare; Secretary Forest, M. S. Singh Deo; Secretary, Tribal Welfare, Harijan Welfare, P. M. Singh; Secretary, Local Goot. (Urban), G. L. Shukla.

# Heads of Departments

Inspector General of Police (Bhopal), B. M. Shukul; Director of Agriculture (Bhopal), R. P. Kapoor; Director of Industries (Bhopal), Manish Bahel; Chief Conservator of Forests (Bhopal), K. N. Mishra; Labour Commissioner (Bhopal), B. M. Date; Director of Public Instruction (Bhopal), S. P. Verma; Director of Public Instruction (Bhopal), N. C. Kaushas; Director of Health Services (Bhopal), Dr. Prakash Narain; Inspector General of Prisons (Bhopal), L. S. Naidu; Director of Tribal Welfare (Bhopal), P. N. Abbi; Excise Commissioner (Gwalior), M. M. Khar; Director of Panchayat & Social Welfare, R. S. Khanna; Sales Tax Commissioner (Indore), N. V. Krishnan; Director of Economics & Statistics (Bhopal), Dr. K. B. L. Bhargava; Director of Fisheries (Bhopal), G. P. Dube; Director of Food & Civil Supplies (Bhopal), K. G. Telang; Transport Commissioner (Gwalior), Jagat Swaroop; Registrar of Cooperative Societies (Bhopal), A. N. Verma; Director of Land Records & Settlement Commissioner (Gwalior), N. N. Chaturvedi; Development Commissioner (Bhopal), B. P. Pathak; Director of Training & Employment (Jabalpur), L. P. Tiwari; Director of Information and Publicity (Bhopal), A. M. Shastri; Director of Tourism (Bhopal), I. S. Parihar; Director of State Lotteries (Bhopal), V. G. Nigam; Chief Engineer, Major Projects (Irrigation), (Bhopal), N. N. Shah; Director of Treasuries (Bhopal), A. S. Krishnamurty; Public Health Engineer (Bhopal), R. D. Jagannath Rao.

### High Court

Judges at Jabalpur, Bishambhar Dayal (Chief Justice), T. P. Naik, P. K. Tare, K. L. Pandey, Shivdayal, N. M. Golvalker, S. P. Bhargava, R. J. Bhave, Surajbhan Grover, A. P. Sen, G. P. Singh; Judges at Indore, H. R. Krishnan, S. B. Sen, M. A. Razzaque, G. L. Oza; Judge at Gwalior, S. M. N. Raina.

# MAHARASHTRA

Capital: Bombay.

Area: 306,345 Sq. Kilometers; Population: 39.55 millions (1961 census).

It is the third biggest State in the Union both in respect of area and population.

The strength of the Maharashtra Assembly is 270, of the Council 78. The State sends 19 members to the Rajya Sabha and 47 to the Lok Sabha.

#### DISTRICTS

(For the names, area and population, see under article "Population").

The State is divided into 26 Districts. There are 231 Talukas and Mahals and 223 municipal towns.

The Districts with their headquarters in brackets are :-

Dhulia (Dhulia), Nasik (Nasik), Thana (Thana), Greater Bombay (Bombay), Kolaba (Alibag), Ratnagiri (Ratnagiri), Ahmednagar (Ahmednagar), Poona (Poona), Satara (Satara), Sangli (Sangli), Kolhapur (Kolhapur), Sholapur (Sholapur), Jalgaon (Jalgaon), Aurangabad (Aurangabad), Parbhani (Parbhani), Bhir (Bhir), Osmanabad (Osmanabad), Nanded (Nanded), Buldhana (Buldhana), Akola (Akola), Amravati (Amravati), Yeotmal (Yeotmal), Wardha (Wardha), Nagpur (Nagpur), Chanda (Chanda), Bhandara (Bhandara).

These 26 Districts are grouped into four Divisions.

Bombay Division: Greater Bombay, Thana, Kolaba, Nasik, Dhulia, Jalgaon, Ratnagiri.

Poona Division: Ahmednagar, Poona, Satara, Sangli, Kolhapur, Sholapur.

Aurangabad Division: Aurangabad, Parbhani, Bhir, Osmanabad, Nanded.

Nagpur Division: Buldhana, Akola, Amravati, Yeot-mal, Wardha, Nagpur, Bhandara, Chanda.

# BASIC FACTS AND FIGURES

Income during 1965-66@ (in crores of rupees): 2,309 (100·0). Agriculture and allied activities 732·6 (31·7); Mining, manufacturing, small enterprises and construction 742·1 (32·1); others 834·7 (36·2). Per capita income Rs. 520·6. Figures in brackets show percentages to the total income.

### LAND UTILIZATION

Classification of land and area in '00 hectares for 1966-67 respectively are:

Total Geographical Area 307,695; Area under Forests 54,164; Net Area Sown 1,82,131; Gross Cropped Area 189,754; Barren & Uncultivable Land 17,532; Land put to non-agricultural use 6,933; Culturable waste 8,059; Land under miscellaneous tree crops 1,864; Permanent pastures 14,215; Current fallows 11,117; Area sown more than once 8,874; Other fallows 11,678; Gross Cropped area 1,91,005.

### Area and Out-turn Under Different Crops

Crop wise area in '000 hectares and out-turn in '000 tonnes respectively under cultivation during 1967-68 are:

Rice 1,367; 1,437; Wheat 891; 360; Jowar 6,246; 3,393; Bajra 1,821; 493; Total cereals: 10,801: 6,003; Total Pulses: 2,379; 822; Sugarcane 165; 1,189; Cotton (Lint) 2,794; 244; Groundnut 1,066; 619; Tobacco 18; 7.

(In '000 Hectares)

Area irrigated by crops during 1965-66: Rice 249; Wheat 205; Jowar 316; Sugarcane 171; Cotton 47; Groundnut 26.

Area Irrigated by Sources ('000 hectares), 1966-67†: Govt. canals 259; tanks 211; wells 717; other sources 55; net irrigated 1,242; gross irrigated 1,427.

Agricultural Machinery & Implements (1966): Wooden ploughs 1,764,899; Carts 1,461,154; Sugarcane Crushers 17,694; Oil Engines with Pumps for Irrigation purposes 146,786; Electric Pumps for Irrigation 37,979; Tractors 3,274; Ghanis 3,777.

### Livestock 1966:

Total cattle: 14,729,446; Total buffaloes 3,041,919; Sheep 2,205,063; Goats 5,121,337; Horses & ponies

101,004; Pigs 181,122; Camels 1,935; Total livestock 25,449,033; Poultry 9,901,987.

Cooperation: Number of societies, number of members ('000) and working capital (Rs. lakhs) respectively as in 1967-68.

Agricultural and non-agricultural credit apex and central 29; 73; 36,875; Agricultural credit\* 20,750; 3,616; 22,963; Non-Agricultural 2,502; 2,195; 10,531; Marketing 425; 247; 3,289; Productive enterprises 6,857; 735; 11,059; Others 8,658; 884; 6,569; Total number of all types of cooperative societies, total number of members and total working capital (Rs. lakhs) respectively: 39,221; 7,750; 91,286.

Various types of banking offices at the beginning of 1968:

Scheduled banks 944; Non-Scheduled banks 8; Cooperative banks 1,029; Total banking offices 1,981.

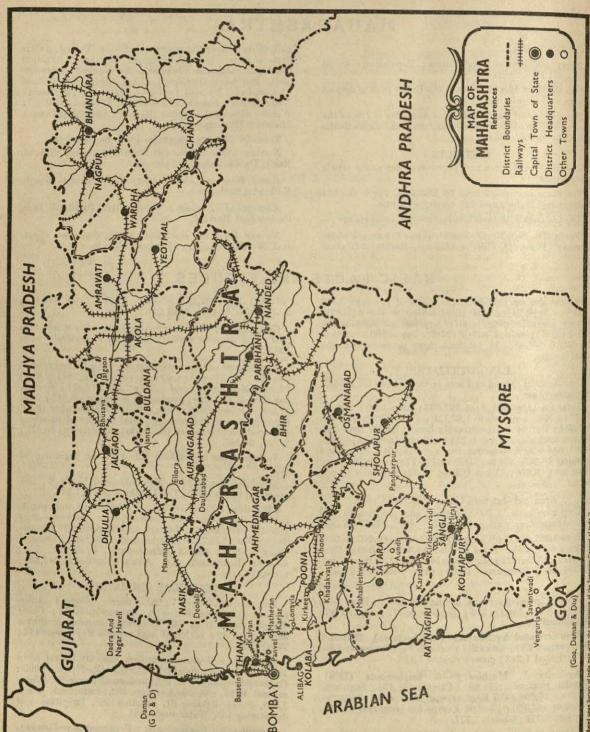
Education (1967-68): No. of Institutions and pupils respectively under each category is as follows:—Pre-Primary 507; 36,387; Primary 43,709; 5,909,071; Secondary 4,578; 1,727,131; Higher 365; 236,166; Teachers' Training 253; 29,043; Professional & Special 781; 82,478; Institutions for Adult education 245,282; 1,346,734.

# TECHNICAL EDUCATION

Engineering Colleges 7; Other degree colleges 1; Autonomous governing bodies 6; Polytechnics 24; Other diploma institutions 15; Industrial training institutes and centres 47; Technical high schools 89; others 434; Total 623.

Electricity: (Figures in million kilowatt hours) as in 1967-68. Output: Steam 2,775, Oil 44, Hydro 4,003; Consumption: Domestic light and small power 536, Commercial light and small power 480, Industrial power 3,850, Public lighting 61, Traction 583, Irrigation and dewatering 155, Water works 101.

Community Development Programme:—Coverage as on 31-3-1969: No. of blocks of CPA pattern 450½; No. of villages covered—including 37 non-Municipal urban areas 38,904; Population covered 2,87,06,000.



"C Gove. of India Copyright 196

Achievements during 1968-69 and progressive achievements upto 31-3-1969 respectively. Figures within brackets indicate units: Distribution of fertilisers ('000 tonnes) 337; 1,934; Distribution of improved seeds ('000 tonnes) 20; 251; Animals castrated ('000 No.) 292; 2,516; Pedigree Bulls supplied (No.) 652; 10,827; Area reclaimed and bunded ('000 Hectares) 465; 3,602; Additional area irrigated ('000 Hectares) 57; 715; Drinking water wells constructed (No.) 2,959; 27,399; Adults made literate ('000 No.) 1,719; 5,196; Katcha roads constructed (Kilometres) 1,826; 26,542; People's contribution ('000 Rs.) 3,445; 128,193; Government Expenditure ('000 Rs.) 27,642; 670,182.

Medical:—(Figures as on 1-4-1968): Number of State Government hospitals and dispensaries in the State: 112; Number of beds 17,583; Municipal Hospitals and dispensaries 1,001; Number of beds 6,701; Private aided and non-aided 268: Number of beds 11,961.

Transport and Communications: Figures as on 1st Jan. 1969\*: Number of motor cycles 51,999; Motor cars 98,335; Taxi cabs 13,696; Auto-Rickshaws 1,736; Stage carriages (Diesel engined 6,835; Petrol engined 305); Lorries: Public carriers (Diesel engined 17,621; Petrol engined 12,261); Private carriers (Diesel engined 5,817; Petrol engined 8,017); Ambulances 371; School buses 427; Private Service vehicles 556; Trailers 5,726; Tractors 5,467; Others 625; Total number of vehicles 2,29,794.

Roads: (b) in Kilometres (Figures as on 31st March 1968): Total 55,103; National highways 2,370; State highways 11,093; Major district roads 13,447; Other district roads 9,228; Village roads 18,965.

A road styled Bombay-Goa Road connecting Goa with Bombay, under construction, is expected to be completed by 1970.

Railway kilometrage: Total 5,162 (Broad Gauge 2,752; Metre Gauge 1,308; Narrow Gauge 1,102).

Nationalised Road Transport (c) (Figures as in March 1969): No. of routes 4,596; route distance in km. 2,96,730; average no. of vehicles on road per day 4,205; average daily earning Rs. 14,23,921; average no. of passengers who travelled per day 13,98,937.

Employment Exchange Statistics: (d) (Figures for 1968-69): Registrations 4,00,108; Vacancies notified 80,076; Placements 39,973; Those on the live register 2,92,422.

Village Panchayats: The total income of Village Panchayats in 1967-68 was Rs. 13·1 crores as against Rs. 14·32 crores in 1966-67. The Government grants contributed about 60 per cent of the total revenue. The total expenditure of Village Panchayats in 1967-68 was about Rs. 11·5 crores.

The receipts of the Zilla Parishads (1968-69 budget estimates) amounted to Rs. 75·0 crores of which 92·1 per cent were Government grants. The purposive grants and the Plan grants including block grants formed the major share e.g. 51·6 per cent and 19·8 per cent respectively of the total Government grants.

As against the total revenue receipts of Rs. 75.0 crores, the total revenue expenditure was Rs. 76.1 crores.

Small Savings: In small savings Maharashtra enjoyed the premier position in India till 1964. The total net collections during 1968-69 were Rs. 16-11 crores as compared to the collection of Rs. 18-98 crores in 1967-68. Thus the collection declined by 15 per cent.

# Working Class Consumer Price Index Numbers(6)

Statement showing the Consumer Price Index Numbers for Working Class, for the year 1966, 1967 and 1968 for 7 Selected Centres of the Maharashtra State.

Yea	r	Bombay year ended June 1960 = 100	Sholapur year ended January 1960 = 100	Nagpur year ended August 1960 = 100	$\begin{array}{c} \text{Jalgaon} \\ \text{year ended} \\ \text{August} \\ 1961 = 100 \end{array}$	Nanded year ended July 1961 = 100	Aurangabad year ended July 1961 = 100	Poona 1961 = 100
1966		143	145	144	155	153	151	139
1967		158	162	160	173	174	176	151
1968		166	167	166	171	173	173	156

# All India Index Number of Wholesale Prices (See page 256).

### **ECONOMY**

Rice is abundantly grown in the Coastal Districts of Thana, Kolaba, Ratnagiri and also in Chanda and Bhandara. It accounts for one-fifth of the foodgrains grown in the State. Wheat accounts for a little more than one-twentieth. Millets are grown abundantly in the Deccan, Vidarbha and Marathwada districts. Jowar is the major cereal and accounts for half the production.

The production of cotton in 1965-66 was 1,74,000 metric tons and groundnut 4,50,000 metric tons in Maharashtra. The production of cotton and groundnut was 8,47,000 metric tons and 40,22,000 metric tons respectively in the country.

The State has abundant forest wealth. Forests form 20.7 per cent of the area of the State. There are forest areas in all districts, but the thickest forest areas are, in Chanda, Amravati, Yeotmal, Bhandara, Nagpur, Dhulia, Thana

and Nasik Districts. They produce various types of timber, teak and minor forest produce.

In the matter of live-stock, the milk-yielding buffalo population is greater than the cattle only in Kolhapur and Greater Bombay. The sheep and goat abound in all Districts but are particularly noticeable in Nasik, Dhulia, Ahmednagar and Sholapur. The concentration of horses and ponies is greater in Marathwada, Dhulia and Ahmednagar.

The more important industries are cotton textiles, general and electrical engineering, chemicals, petroleum, transport and transport equipment, sugar, vegetable oils, paper, paper boards and soap. In 1966 there were 9,043 working factories in the State providing employment to about 8,79,000 workers. Out of the registered factories, about 49 per cent factories are in the Greater Bombay area.

Out of the Rs. 866 crores of productive capital in Maharashtra in 1963, the textile industry alone accounted for 16 per cent. It is apparent that Greater Bombay alone contributes 69 per cent of productive capital.

<sup>\*</sup> Provisional. (b) Source: Buildings & Communications Department, Sachivalaya. (c) Source: Maharashtra State Road Transport (d) Source: Director of Employment, Bombay. (e) Commissioner of Labour, Bombay.

Jt. Stock Companies (March 1966): No. of Jt. Stock Companies limited by shares: 5,363; Paid-up capital: Rs. 742 crores.

No. of new Jt. Stock Companies incorporated & registered with Authorised capital (Rs. in lakhs) respectively: 1964-65; 267; 10,558; 1965-66; 284; 4,446; 1966-67; 227; 3,169; 1967-68: 249; 4,069.

Mineral Production (1968): The quantity being in '000 tonnes & value in Rs. '000 respectively:

1968: Chromite 0.6; 68; Coal 1,256; 40,162; Iron ore 208; 3,209; Limestone 64; 341; Manganese ore 290; 30,446; Chinaclay: 3; 17; Bauxite 46; 547; Salt 450;

12,037; Dolomite 22; 189; Gypsum —;—; Quartz & Silica 19; 156; Ochre 1: 12.

Source : Indian Bureau of Mines, Nagpur.

Vidarbha region of Maharashtra is outstandingly rich in mineral wealth. Nagpur and Bhandara districts of Vidarbha region possess some of the largest deposits of manganese ore in India. Salt is produced in the coastal districts. The only Coal bearing area, having extensive reserves of first grade and medium grade Coal is found around Kamptee, Umrer and Bokhara in Nagpur district and Warora in Chanda district. Large deposits of iron ore are found in Ratnagiri and Chanda districts. Limestone is at present mined only in Nagpur and Yeotmal districts.

# ELECTRIC POWER DEVELOPMENT

Today all places with a population of 50,000 and over are electrified. Power generation and consumption in Greater Bombay are high.

Generation 1968-69: Power generated: 2,990·169 MV. Purchased from M.S.E.B.: 1,838·640 MV. Total available 4,828·809 MV.

Consumption during 1968-69: 3865-574 MV.

The allocation for Irrigation and Power during 1968-69 was Rs. 17 crores or about 11.05 per cent of the total Annual Plan of Rs. 154 crores.

The total installed capacity as on 31st March 1969 was 1,596·592 MW; output of electricity during 1968-69 was 7,262·134 million KWH and consumption was 5,856·360 million KWH. The per capita power generated and consumed was 183·5 KWH and 148 KWH respectively in the Indian Union as a whole.

The power requirements of the State have been assessed at 2328 MW at the end of the Fourth Five Year Plan. To meet this demand, the State's Fourth Five Year Plan includes projects, hydro and thermal, of a total capacity of 985 MW. This together with 190 MW accruing from the Nuclear Power Station will be 1,175 MW. So the total effective capacity at the end of the Fourth Five Year Plan will be 2,735 MW. Taking into consideration the stand-by capacity and Power Station auxiliary load, the net effective capacity at the end of 1973-74 will be 1,923 MW; thereby the State as a whole will experience a shortage of power to the extent of 405 MW by 1973-74.

Maharashtra has a hydro potential of over 3,000 MW mainly concentrated in or around the Western Ghats.

The second stage of the Koyna Hydro Power Station is completed and the power station is now operating at full capacity of 540 MW. The work on third stage is in progress. The Purna Project is completed and the power station is commissioned with its full capacity of 22.5 MW. The extension of Khaperkheda and Paras Power Stations is also completed and the power stations are now operating at 114 MW (due to boiler limitation 120 MW capacity is derated to 114 MW) and 92.5 MW capacity respectively. The construction work of 62.5 MW Bhusawal Thermal Power Station is also completed and the power station was commissioned during the year 1968-69. In the private sector, an additional capacity of 150 MW was commissioned by Tatas in their Steam Power Station at Trombay (during the year 1966).

New Projects: Three more steam stations, of a total capacity of 580 MW, are to be constructed by the State Electricity Board during the Fourth Five Year Plan period. One of these, of 280 MW, will be constructed near Nasik

in the Western Maharashtra, the second of 60 MW in Parli-Vaijnath in Marathwada and the third of 480 MW at Koradi near Nagpur in Vidarbha. Though of the Fourth Plan programme, advance action in respect of these projects had been initiated in the Third Plan itself and the Nasik Power Station will be commissioned shortly initially with one set of 140 MW.

Transmission Lines: The total length of transmission lines as on 31st March 1966 i.e. as at the end of the III Plan was 22,928 Circuit Kms, and at the end of 31st March 1969 it was 41,304·196 Circuit Kms.

Rural Electrification: In rural electrification, the accent is on electrification of villages which are within easy reach of grid lines and which offer sufficient load, particularly load for agriculture and small industries. There are 35,851 towns and villages in the State. Out of these as many as 10,020 villages had been electrified by 31st March 1969. Agricultural pumps supplied with electricity aggregated 1,23,568 as on 31st March 1969. A target of supplying electricity to 10,000 more villages and 1,00,000 agricultural pumps has been fixed for the Fourth Five Year Plan.

# MAHARASHTRA STATE ELECTRICITY BOARD

As on 31st March 1969:

Total installed capacity: 8,73,279 KW

Steam: 2,97,500 KW Hydro: 5,68,324 KW Diesel: 7,455 KW

Number of towns and villages and agricultural pumps supplied with electricity:

		Towns	& Villag	ges Pumps
Western Maharashtra		1 E.	5,202	67,747
Vidarbha			3,140	34,335
Marathwada		Tour Real	1,678	21,486
Total (State)			10,020	1,23,568
Total length of Transmi 11KV and above (C				41,304.196
Total number of cons the year 1968-69	ume	rs duri	ng	8,32,940
Total electricity (Miln. KWH) .	-	roducti	on 	4,206.715
Total electricity (Miln, KWH) .	2/3	purchas	sed	497-294
Ecctricity received Power Station during (Miln. KWH)	frer Apr			36 • 856

Total sales (Miln. KWH)	3,955-077
Total expenditure on Electricity Schemes (Rs. crores)	57.30
Capital assets on 31st March 1969 (Rs. crores)	219.06
Gross Revenue (Rs. crores)	36.72
Working expenditure during the year 1968-69 (Rs. crores)	27.80

# POWER PROJECTS IN OPERATION

The following statement shows particulars of the Board's power projects in operation as on March 31, 1969:

Bombay-Koyna System: Intended mainly to serve the Western Maharashtra region, this system comprises three hydro power stations, viz., the Koyna, Radhanagari and Bhatgar. The first one is interconnected with the power stations of Messrs. Tata's of Bhira, Khopoli, Bhivpuri & Trombay, the Chola Power Station of Central Railway and the Nuclear Power Station at Tarapur. For its schemes in the Bombay-Poona area the Board continued to purchase bulk power from Tatas. The purchase from Messrs. Tatas at Chola Power Station for supply to Igatpuri-Manmad area is stopped since January 1969. Board also continued to supply Electricity to Goa from its Koyna-Radhanagari interconnected system in Western Maharashtra. In addition there was one Diesel Power Station at Nasik, which is closed down with effect from 15-12-69.

Total units generated in 1968-69: 3,005·263 Miln. KWH; Total units purchased in 1968-69: 482·765 Miln. KWH.

Western Maharashtra Region: Total units sold in 1968-69: 3,219:698 Miln. KWH; No. of consumers served as on 31-3-69:5,41,849; Length of transmission lines 11 KV and above: 22,149:770 Circuit KMs.

Vidarbha-Khandesh-Marathwada grid system: This system is served by four Steam Power Stations — Khaper-kheda 1,20,000 KW; Paras 92,500 KW; Ballarsha 22,500 KW; Bhusawal 62,500 KW; and one hydro-power station Eldari 22,500 KW all inter-connected. There are also three small diesel power stations of a total capacity of 616 KW, at Aheri 100 KW and Sironcha 78 KW in Chandrapur District and at Dharani 438 KW in Amravati District.

Total units generated in 1968-69: 1,230·759 Miln. KWH; Total units purchased in 1968-69: (From Madhya Pradesh Electricity Board): 14·529 Miln. KWH.

Vidarbha Region: Total units sold in 1968–69: 665·882 Miln. KWH; Total number of consumers served as on 31–3–69: 1,94,163; Total length of transmission lines 11 KV and above as on 31–3–69: 12,085·426 Circuit KMs.

# Marathwada:

Aurangabad, Bhir, Parbhani and Nanded Districts of Marathwada region are served by the Vidarbha–Khandesh–Marathwada Grid system and the Osmanabad District is served with power from the Koyna–Tata–Railway–Tarapur Grid system of Western Maharashtra. The Eldari Power Station of the Purna Hydro Electric project was commissioned by the Irrigation and Power Department of the State Government during 1967–68 and the power station is now taken over by the Board on lease since 1–1–69. The Board received 36·856 Miln. KWH from this power station from 1–4–68 to 31–12–68 and the power generated from 1–1–69 to 31–3–69 in Eldari was 24·864 Miln. KWH. This energy is fed in the Vidarbha–Khandesh–Marathwada grid system of the Board.

Total units sold in 68-69: 69: 498 Miln. KWH.

Total number of consumers served as on 31-3-69:

Total length of transmission lines 11 KV and above as on 31-3-69: 7,069 Circuit KMs.

## CHOLA, KOYNA

Central Railway's Power House at Chola has a total installed capacity of 136,000 KW and supplies electric power for the requirements of Central and Western Railways' electrified lines in Bombay. This power house is interconnected with the Tata-Koyna system.

The second scheme is Koyna, it is the biggest scheme in Maharashtra.

The Koyna Hydro-Electric Project comprises three Stages. Stage-I of the project is completed and the four generating sets of 60 MW capacity each under stage I have been commissioned and handed over to the State Electricity Board for operation and maintenance from 1st April 1963. Stage-I of the project costs Rs. 38.28 crores.

Stage II of the Project which is estimated to cost Rs. 18·16 crores provides for installation of four additional generating units of 75 MW capacity each and laying of 220 KV Transmission lines to Bombay. All the four generating units under Stage II have already been commissioned and handed over to the Maharashtra State Electricity Board for operation and maintenance. All the work under Stage II of the Project is practically completed.

An expenditure of about Rs. 56.55 crores has been incurred on Stages I and II of the Project till the end of June 1969.

Stage III of the project contemplates further generation of power on the tail-race waters of Stages I & II by constructing a system of balancing reservoirs, Head-race and tail-race tunnel pressure shafts and an underground power house. The Project envisages installation of four generators of 80 MW capacity each for generation of 320 MW of 20 per cent load factor. This station is envisaged to run as a peaking station to meet the demand of power at its peak. The work on this Project is in full swing. An expenditure of Rs. 10·01 crores has been incurred on Stage III of the Project till the end of Sept. '69.

### TATA PROJECTS

The hydro-electric undertakings in the State are the three schemes developed and brought into operation by Tata Sons, Ltd., and continued under their management until 1929, when they were transferred to the management of the Tata Hydro-Electric Agencies, Ltd., in which Messrs. Tata Sons retain a majority interest. These undertakings are:—

(a) The Tata Hydro-Electric Power Supply Company,

Ltd. Supply started in 1915.

The Andhra Valley Power Supply Company, Ltd. Supply started in 1922.

(c) The Tata Power Supply Company, Ltd. started in 1927.

The Tata Electric System is interconnected with Chola Steam Station of the Central Railway, the Koyna Hydro generating station and the newly built nuclear station at Tarapur. Together they are operated as a Hydro-Thermal-Nuclear system under the co-ordinated control of the Companies. The Tata-Railway-Koyna System is interconnected with the Gujarat Power system in the North, and with the Eastern Maharashtra Power system, to form the Western Regional Electricity grid.

The Tata Electric Companies serve an area in Maharashtra State of more than 2,072 sq. kilometres.

Electric service is rendered to the textile mills and other industries of Bombay and the suburban areas, to local authorities, and, in bulk for retail distribution, to the electrical undertakings including the State Electricity Board, supplying Greater Bombay and ten other localities within the area.

The transmission network of the Tata system consists of 1,055 circuit kilometres of 100 kV overhead lines and 33 circuit kilometres of 100 kV underground cables and the distribution network of 403 circuit kilometres of 22 kV overhead as well as 244 circuit kilometres of 22 kV underground cables and 44 circuit kilometres of 6·6 kV overhead lines and 192 circuit kilometres of 6·6 kV underground cables. There are also 44 circuit kilometres of 6.600-volt overhead lines.

Substantial additions to the transmission and distribution network are expected to be made during the next few years.

During 1968-69 the peak demand on the Tata Rly. System reached a figure of 856 MW and that on the Tata-Railway-Koyna system was 1.025 MW.

The sales by Tatas during 1968-69 was 4,547 million units and the purchase from the State Electricity Board to supplement Hydro system during the year was 1,839 million units.

Note: Because of security reasons, we have been asked not to publish any information relating to location of electricity generating plants.

# HOUSING

Housing schemes are coordinated by the Urban Development, Public Health and Housing Department of the Government. The actual building work and ancillary functions are discharged by the Housing Boards. Finance comes partly from the Government of India.

There are two Boards now, the Maharashtra Housing Board for the western Maharashtra and Marathwada areas and the Vidarbha Housing Board for Vidarbha.

Subsidised Industrial Housing Scheme: This scheme is meant for industrial workers whose income does not exceed Rs. 350 per month. The scheme is executed through the Maharashtra Housing Board and Vidarbha Housing Board, Employers and Co-operative Societies of Industrial workers. The Housing Boards are provided with 100 per cent financial assistance. The financial assistance is given to the employers at the rate of 50 per cent loan and 25 per cent subsidy and to the Co-operative Societies at the rate of 65 per cent loan and 25 per cent subsidy. In addition, employers can also give their 25 per cent share of contribution to the Housing Boards for construction of tenements for their employees. The rents charged are subsidised rents as fixed by the Government of India. The total number of tenements completed, agency-wise till March 31. 1969 is as follows: Maharashtra Housing Board 27,929; Vidarbha Housing Board 3,704; Employers 5,256; Cooperative Housing Societies 462; Total 37,351.

Slum Clearance Scheme: This scheme provides for construction of tenements and provision of plots for slum dwellers whose income does not exceed Rs. 250 per month. The scheme is executed through the agency of local bodies and the Maharashtra Housing Board. The rents charged are subsidised rents as fixed by the Government of India. The total number of tenements constructed by the various agencies till the end of March 1969 is as follows: Maharashtra Housing Board 14,894; Bombay Municipal Corporation 4,375; Poona Municipal Corporation 796; Nagpur Municipal Corporation 332 (plots); Nagpur Improvement Trust 50 tenements and 650 (plots); Dhulia Municipality 85; Ahmednagar Municipality 90; Total 20,290 tenements and 982 plots.

Low Income Group Housing Scheme: This scheme is meant for persons whose total annual income does not exceed Rs. 7,200. The scheme is in operation in the municipal areas of the State. Loans equal to 80 per cent of the cost of construction subject to a maximum of Rs. 12,500 per tenement are granted under the scheme to individuals, institutions, local bodies etc. The total number of tenements completed through the various agencies till the end of March 1969 is as follows: Maharashtra Housing Board 8,035; Vidarbha Housing Board 315; Individual 649; Local Bodies 1,922; Co-operative Societies 3,453; Institutions 55; Total 14,429.

Weaker Sections Economically Scheme . scheme provides for construction of tenements for persons whose monthly income does not exceed Rs. 350 per month. The scheme is executed through the agencies of the Vidarbha Housing Board and the Maharashtra Housing Board, which are given 100 per cent financial assistance. Under the integrated Subsidised Housing Scheme for industrial workers and economically weaker sections the subsidy portion of central assistance has been raised to 50 per cent from 25 per cent and the rents to be charged would be subsidised rents as fixed by the Government of India. This is applicable only to projects sanctioned after the 1st of April 1966. The total number of tenements constructed by the various agencies till the end of March 1969 is as follows: Maharashtra Housing Board 900, Vidarbha Housing Board 272.

Sweepers Housing Scheme: This is meant for providing residential houses to the sweeper employees of the various local bodies in the State. The scheme is now executed through the agency of local bodies and recognised social service agencies, which are given financial assistance by way of 50 per cent loan and 50 per cent subsidy based on the approved cost. The total number of tenements constructed under the scheme till the end of March 1969, is 867.

Middle Income Group Housing Scheme: This scheme is meant for persons whose monthly income is between Rs. 601 and Rs. 1,250. The scheme is implemented through the Maharashtra Housing Board and Vidarbha Housing Board. Funds required by the Boards are made available to them from the loans drawn from the Life Insurance Corporation of India by the Government. The tenements constructed are given on rental and hire-purchase basis. The total number of tenements constructed till the end of March 1969 by the two Boards is 1,741.

Land Acquisition and Development Scheme: The scheme is executed through the agencies of the Maharashtra Housing Board, the Vidarbha Housing Board and the Nagpur Improvement Trust, which are given financial assistance to the extent of 100 per cent. The Maharashtra Housing Board has been allowed to constitute "Revolving Fund" out of the amount of Rs. 110 lakhs given to it under the Scheme. Since 1962-63, assistance for this scheme is given to the two agencies from the loans drawn by the Government from the Life Insurance Corporation of India. The area acquired and notified for acquisition respectively in acres till the end of March 1969 by the three agencies is given below: Maharashtra Housing Board 789; 1,734; Nagpur Improvement Trust 111-15; nil; Vidarbha Housing Board 34·75; 10·19.

The Maharashtra Housing Board has also undertaken the reclamation of 117 acres of creek-land at Mahim causeway near Bandra in Bombay.

# ROAD TRANSPORT

A single Road Transport Corporation for the entire State, known as the Maharashtra State Road Transport Corporation, came into existence from July 1, 1961.

The position of Maharashtra State Transport for 1967-68 is given below: No. of passengers carried (in lakhs): 3,991.73; Capital invested (Rs. in lakhs) as on 31-3-68: 3,366.55. Total gross revenue (Rs. in lakhs): 3,894.84; Total revenue expenditure (Rs. in lakhs): 3,880.85.

The operational data of Maharashtra State Road Transport Corporation as of March 1968:

No. of passenger vehicles: 4,657; No. of goods vehicles: 70; No. of routes operated: 4,005; Route kilometres: 2,38,345; Major workshops: One central, 13 divisional and 95 depots; No. of persons employed: 31,460; No. of nationalised city services: 24; No. of Municipalised city bus services: four; Rate per passenger for 6 kilometres 21 P.; Total bus kilometres operated: 2,934.95 lakhs; No. of bus stations (permanent and temporary): 261; No. of refreshment rooms: 568; No. of cloak-rooms: 84; Pick-up stands: 767.

At the end of 1968-69 there were 4,654 routes operating in the State as against 4,005 at the end of 1967-68. The aggregate route distance at the end of 1968-69 was 3.00 lakh kilometres as against 2.38 lakh kilometres at the end of the earlier year. The average number of passengers travelled per day increased to 12.23 lakhs during 1968-69 from 10.91 lakhs during 1967-68. The average daily earnings of the Corporation increased to Rs. 12 lakhs in 1968-69 from 10.25 lakhs during the year 1967-68.

# MILK SCHEME-1969

Staff employed: Govt. Regular 4,810; Part-time 3,320; daily rated 2,000.

Area of Govt. Land: 4,693·49 hectares (Aarey 1,282·35 hec.; Palghar 1,460·10 hec.; Dabchari Milk project 1,739·15 hec.; Worli Dairy 7·89 hec.; cultivated under irrigated fodders at Aarey for para-grass 204 hec.).

Daily quantity of milk procured: Aarey 108,608 litres; Kaira District Milk Producers' Union, Anand (Gujarat State) 108,824 litres; Co-operative Societies (Greater Bombay) 9,270 litres; Mofussil Schemes 155,604 litres.

Distribution of Milk (per day in litres):

The state of	De Co	Туре	TEL SIN			
Whole Milk			170 - 74			359,311
Toned Milk		•			**	22,713 39,408
Double Tone	d Milk	to Mun	icipal S	Schools		
Cow Milk			The state of			660

Number of distribution centres: Part-time centres: 1,711; Full-time centres: 21; Mobile milk-bar: 3; Total number of consumers taking milk from scheme: Families: 309,320; Hospitals and Institutions (bulk Supply): 506.

Sale price of milk per litre: Whole Milk Rs. 1.70; Cow Milk Rs. 1.70; Toned Milk Re. 0.90.

Daily average sale of milk products: Cheese 50·431 Kgs.; Butter 132 packets of 100 gram; Ice-cream 61 cups of 4 oz.; Ghee 731·470 kgs. (Butter and ice-cream are prepared at the students dairy, Aarey for training the students of Dairy Science Institute).

Transport: Milk distribution vehicles 196; Milk procurement vehicles 58; Staff Vehicles 55; Vehicles for other work 47.

Consumption of Electricity (Weekly): 51,492 units (Aarey): 1,00,770 units (Worli).

Consumption of Fuel Furnace Oil (Weekly): 28,000 litres (Aarey); 40,508 litres (Worli).

Bottles replaced (Weekly): (500 ml.) 13,000 (Aarey); 21,000 (Worli); (200 ml.) 2,000 (Aarey); 2,500 (Worli).

Detergents (Weekly): 3,280 kgs. (Aarey); 5,000 kgs. (Worli).

# The Aarey Milk Colony

Started functioning 13th March 1949; Investments by Govt. Rs. 57·5 million; by Cattle owners in Cattle Rs. 30 million.

Number of licensee cattle owners 219; Number of Dairy Farm units 30.

Number of animals at Aarey: Buffaloes (milch) 15,757; dry 293; bulls 160; young stock 3,400; Stock in Young Stock Farm of Govt. 206. Cows (milch) 10 (with licensees), 283 with Govt.; dry 111; bulls 3; young stock 34; Stock in Young Stock Farm of Govt. 112.

Number of animals in districts undergoing salvage: Buffaloes 10,796; at Palghar, 1,208 buffaloes and 157

Average daily milk production per milch animal at Aarey; buffaloe's 6.70 litres; cow's 3.50 litres.

Total daily tonnage of feed and fodder: Cattle feed  $80 \cdot 24$ ; hay and fodder  $112 \cdot 34$ .

Pasteurisation capacity per hour 18,000 litres.

Bottling capacity per hour 40,800 bottles.

Number of containers in circulation: Distribution cans 500, bottles daily 5,10,938; crates 25,025.

Water consumption daily: 1,814,300 gallons.

#### The Worli Dairy

Started: Nov. 7, 1961; Investment on land, buildings etc.: Rs. 1,46,05,000; Value of machinery purchased by State Govt. Rs. 38,66,000; Value of machinery supplied by UNICEF Rs. 64,79,000.

Pasteurising Capacity: 40,000 litres per hour; Bottling capacity: 50,000 bottles per hour.

Number of containers in circulation: Distribution cans 490; bottles daily 509,680; crates 24,244.

Water consumption daily: 6,50,000 gallons.

# Dapchari Milk Project

Govt. Investments (estimated): Rs. 50.14 million.

Number of animals (a) milch cattle with family of farmers 10,000; with licensees 10,000; with research centre 1,000; (b) dry cattle: 10,000; (c) young stock 10,000.

The project will be completed in another five years and will supply milk to the extent of 1,25,000 litres per day.

### LABOUR

Particulars about labour in Maharashtra State are given below:

Total number of registered factories as on 30th June 1968: 10,432.

Number of Works Committees functioning as on 30th September 1969: 190. Dec. 1967: 286.

Average daily number of workers employed in factories as on 30th June 1968: 8,79,350.

Number of towns covered as on 31st August 1969 by the Bombay Shops & Establishments Act, 1948: 130.

Number of industries covered by the Bombay Industrial Relations Act, 1946 as on Dec. 31, 1968: 10 industries in Western Maharashtra. The number of workers covered by the Act in Western Maharashtra as on 31st December 1968: 3,54,372. Bombay Industrial Relations Act is also made applicable to all industries in Vidarbha area except saw mills and ten other industries such as generations and supply of electrical energy, paper & paper products, building and road construction, Dairy and dairy Products, Rice, Flour or dal mills, industries carried on by Municipal Council etc. and to Cotton Textile and Sugar Industries in Marathwada Area.

Trade Unions (December 31, 1967): Number of registered trade unions: 2,552; Total membership of registered trade unions: 11,17,290; Number of regd. trade unions affiliated to I.N.T.U.C.: 100; Membership of unions affiliated to I.N.T.U.C.: 1,68,442; Number of regd. trade unions affiliated to A.I.T.U.C.: 53,255; Number of regd. Unions affiliated to A.I.T.U.C.: 53,255; Number of regd. trade unions affiliated to H.M.S.: 43; Membership of unions affiliated to H.M.S.: 2,01,824.

Industrial Disputes in 1968: No. of strikes 618; No. of workers directly involved 1,95,702; No. of workers indirectly involved 7,861; No. of man-days lost 16,14,744.

## The Maharashtra Labour Welfare Board Jambori Maidan, Worli, Bombay 18 (W.B.)

The number of welfare centres under the control of the Maharashtra Labour Welfare Board is 76. In addition, there are eight sub-centres carrying out activities on a restricted scale. Activities of these centres include recreation through entertainment, games and sports, health programme through first aid and health education, community and social education, subsidiary occupations and handicraft for women, nursery schools and scouts and guides for children, creches for toddlers, Tailoring Classes, etc.

Along with the programme of mass recreation, health and education, there has also been an emphasis on skilled recreation with an educative bias.

Attendance for 76 welfare centres and eight sub-centres in the State during 1967-68 was 4,30,19,229 with a regular membership of 1,77,477.

## OFFICIAL LANGUAGE

Maharashtra Official Language Act, 1964 has been passed in the State Legislature and the Directorate of Languages has nearly finalised the initial preparations like training of typists and stenographers, preparing administrative lexicon and other help books, etc. needed for the change-over from English to Marathi.

# DECENTRALISATION OF ADMINISTRATION

In the State all villages have been brought within the fold of Panchayati Raj. Out of the total number of 38,851 villages, 38,259 villages have been covered by the establishment of 22,045 Gram Panchayats. In addition 3,480 Nyaya Panchayats had been notified. Elections to these Nyaya Panchayats have taken place.

# EMPLOYEES STATE INSURANCE SCHEME

The number of workers covered in Maharashtra Region centre-wise as on 31st March 1969, was: Greater Bombay 730,450, Poona including Chinchwad and Pimpri 54,650, Sholapur (including Sangli) 21,500, Kolhapur 9,300, Nagpur including Akola, Hinganghat and Nanded 39,100. There are 2 Hospitals viz. Mahatma Gandhi Memorial and Worli in Bombay with 892 general and 120 TB beds commissioned in those hospitals respectively. The number of beds in Maharashtra including reserved beds is 1,784. There are 17 Diagnostic Centres, 15 Ambulance Units, 3 Mobile Dispensaries and 23 State Insurance Dispensaries in Maharashtra. There are in all 1,977 Panel Doctors. For making cash payment to the insured persons 46 Local Offices and 34 Pay Offices have been set up.

## IRRIGATION

(Latest available)

The total area irrigated through all irrigational sources in Maharashtra State in 1965-66 was 12,298 hundred hectares (net) and 14,140 hundred hectares (gross).

Below are given particulars about projects in operation.

Bhatghar Dam and Nira Canals:—At Bhatghar, Poona Dist., completed in 1938, irrigates 1,55,582 acres in Poona, Sholapur and Satara Dists. The cost of the scheme is Rs. 7.20 crores.

Bhandardara Dam and Pravara Canals System:—At Bhandardara in Ahmednagar Dist., completed in 1926, irrigates 65,912 acres in Ahmednagar. Cost 1 · 62 crores.

Darna Dam and Godavari Canals System:—At Darna in Nasik Dist., completed in 1916, irrigates 69,117 acres in Ahmednagar and Nasik Dists. Cost Rs. 3-51 crores.

Chankapur Tank and Girna Canals:—At Chankapur in Dist. Nasik, completed in 1910, irrigates 10,348 acres in Nasik. Cost Rs. 21 lakhs.

Gangapur Dam:—At Gangapur in Nasik Dist. Stage I, physically completed in 1957, would irrigate 21,500 acres in Nasik and 20,000 acres in Ahmednagar Dist. Cost Rs. 3·95 crores. Stage II is completed during the current year. It would irrigate 19,000 acres in Nasik. Cost Rs. 111·55 lakhs. An expenditure of Rs. 5·23 crores has been incurred till March 1966 on Gangapur Stage I and II.

## MAJOR AND MEDIUM PROJECTS

In the Third Plan, in all 27 new major and medium irrigation projects were included in addition to the 49 spill over schemes, for a total outlay of Rs. 69·06 crores which included flood protection works, extension and improvement, survey and investigation of major and medium irrigation projects etc. Against this provision expenditure of the order of Rs. 65·83 crores has been incurred during the Third Plan period. Out of the schemes which were under execution in the Third Plan, as many as 46 were physically completed and have started yielding benefits.

# MINOR AND MEDIUM PROJECTS

The Third Five Year Plan expenditure for both State and Local Sector was Rs. 1,095 lakhs against a Plan allocation of Rs. 1,361·75 lakhs. Out of the schemes which were under execution in the Third Plan, in all 68 schemes were completed in the State Sector creating an additional irrigation potential of approximately 1,08,000 acres.

During the subsequent three annual Plans expenditure incurred and irrigation potential achieved are as under:→

Annual Plan Year	Expenditure								
	Major and Medium Project Rs. in lakhs	Potential (Addi- tional) '000 acres	Minor Irrigation Works (S.S.) (Irrigating more than 250 acres) Rs. in lakhs	Potential (Additional)					
1966-67	 1,432.69	96.35	384 - 39	14					
1967-68	 1,304.55	56.79	375.72	21					
1968-69	 1,956 · 28	187.59 (Estimated)	525.76	34 (Anticipated)					

## PARTICULARS ABOUT SOME OF THE VERY IMPORTANT PROJECTS UNDER CONSTRUCTION

Project	Location	Area to be irrigated '600 acres	Districts benefited	Estimated cost Rs. in lakhs	Amount spent upto 31-3-69 Rs. in lakhs
Warna	Khujgaon, Shirale, Satara Dt.	244.77	Kolhapur and Sangli	3,164.00	51 - 19
Upper Penganga	Isapur Village, Pusad Taluka, Yeotmal Dt.	275.52	Nanded and Parbhani	3,506.00	3.00
Bhima	(1) Phagne, Mawal, Poona Dt. (2) Ujjani, Sholapur	427⋅20	Poona	4,258.00	386 · 23
Yayakwadi	Near Paithan, Aurangabad Dt.	350.00	Aurangabad and Parbhani	5,878·12 (anticipated)	777 - 72
Krishna	Talavai, Satara Dt.	262 · 64	Sangli and Satara	2,765 · 64	31 · 17

## INDUSTRIES

(Latest available)

Engineering:—In the field of engineering industry, there have been several notable developments particularly in the Bombay region. Some of these are machine tools like lathes, shaping machines, pillar drills, power hammers, metal cutting saws, steel and malleable iron castings, welding electrodes, electrical stampings, link chains, melting crucibles, umbrella ribs, steel furniture, safes and cash boxes, steel balls and copper roller engraving for textile industry.

Another feature is the beginning made in the manufacture of modern appliances like typewriters, refrigerators, wireless receiving sets, wooden and plastic cabinets and household electrical gadgets. Manufacture of modern equipment for agricultural plant protection, pressure stoves and lamps, stainless steel-pressed wares and equipment, industrial machinery for textile and chemical industries and fabrication of heavy structurals like transmission tower and pipe line, cranes, etc. has also developed in recent years.

The engineering industries located at Kirloskarwadi, Poona and Satara are known for their agricultural implements, engines and other products. There are about 84 units in the Poona division itself, manufacturing diesel engines, oil-engines, sugar-mill machinery, jeep trailors and tractors, non-ferrous utensils, agricultural implements, power looms, etc. In electrical engineering, the manufacture of electrical motors, transformers, cables for transmission and switch gears is worthy of mention.

Sugar:—Maharashtra is one of the major sugar-producing States in the country, having 37 sugar factories with a crushing capacity of 56,350 tonnes per day. They are located in the districts of Ahmednagar (13), Kolhapur (6), Poona (5), Satara (3), Sholapur (3), Nasik (3), Sangli (1), Osmanabad, Aurangabad and Nanded (1 each).

One of the important features of this industry is that 26 are in the cooperative fold. Letters of intent have been granted to 14 sugar mills in co-operative sector, so that 57 mills will be functioning in this state in the near future.

Industrial Alcohol:—Allied to the sugar industry is the industrial alcohol industry, which can be developed from the molasses available from sugar factories. Out of about 162.6 million litres of alcohol made in the country, 40.02 million litres are made in the 8 distilleries located in the State.

Chemicals:—The chemical industry in Maharashtra has made galloping progress.

Bombay and Thana are the main centres of dyestuffs industry manufacturing a wide range of products. Ceramic and glass, gases, oils and soaps, paints, pigments and varnishes, food products, rubber goods and other chemical industries also follow the same pattern.

The Automobile Industry:—Bombay is progressively undertaking the manufacture of cars, utility vehicles and scooters in three large assembly plants. The ancillary industry manufacturing component parts is also steadily developing under the patronage of the automobile industry. The annual licensed capacity for cars is 3,500. Scooters and three wheelers 28,000, others (Jeeps, trucks and tractors) 42,540. The Bicycle Industry is also making headway, having an annual licensed capacity of 2,30,000 bicycles.

Paper Mills:—The paper industry has been delicensed in the State. During 1967 according to factory Act there were three pulp mills, 18 paper mills and 18 paper board mills.

Oil Mills:—Groundnut being one of the important cash crops, there are several oil mills located in various parts of the State. During 1969 in Aurangabad division itself there were 77 oil mills. In Nagpur division, there are about 64 oil mills. In Bombay region the highest number of oil mills is in Jalgaon, followed by Nasik and Dhulia. The total number of oil mills in Bombay Division is 104. Bombay city accounts for 38 oil mills. In addition most of the ginning and pressing factories in the cotton growing tracts which grow groundnuts also have oil mills for off season working.

Ginning and pressing is an important processing industry serving the cotton growing areas. There were 488 such factories all over the State during 1968 a large number of them, having been located in Nagpur division. A little over 85 ginning and pressing units are spread over the entire cotton-producing area in Aurangabad division. In Bombay division out of 77 ginning and pressing factories 24 are located in Dhulia district and 53 in Jalgaon district while there are 88 such factories in Poona division. Nagpur division is having 224 factories, Aurangabad division accounts for 91 ginning factories.

Petrochemical Industry:—The organic chemical industry in India has so far been based upon the fermentation of alcohol, acetylene from calcium carbide and benzene and allied products from coal-tar. With the setting

up of petroleum refineries in the country, there is scope for utilising petroleum naphtha for production of intermediates required for the organic chemical industry. One petro-chemical complex with a total capacity of 45,220 tonnes has come up near Bombay in the Trans-Thana-Creek area. In this complex several organic products such as ethylene oxide, diasetone alcohol, P.V.C. etc., will be produced with petroleum naphtha as the starting material.

Textiles:—During 1968 the total spindle and loom capacity of the state was 26·3 per cent and 37·5 per cent respectively. The total number of mills in the State was 96 (18 spinning and 78 composite) with a capacity of 45,81,617 spindles and 78,203 looms. Of these mills 59 mills are in Bombay city and 37 are in rest of the State.

The total number of workers engaged in textile industry is 2,39,251 of which 1,88,120 are engaged in Bombay city and the remaining in rest of Maharashtra.

Maharashtra occupies an important place in the field of growing of cotton in the country. Of the total production in the country, about 25 per cent is produced in the State, amounting to 14 lakhs of bales. The quality of cotton is mostly short and medium staple. Recently growth of long staple cotton has picked up in certain irrigated tracts in the district of Ahmednagar.

The following figures show the industrywise productive capacity, value of output and value added by manufacture during the year 1966. (Figures in lakh rupees) Textiles 21,579, 47,538, 14,241; food industries except beverages, sugar factories and refineries 4,831, 23,936, 1,706; General electrical engineering 16,655, 21,902, 6,238; Petroleum 6,326, 6,608, 1,238; Transport and Transport equipment 7,107, 12,411, 3,823. Sugar factories and refineries 5,602, 8,359, 1,290. Rubber products 1,813, 4,190 and 1,109; Basic industrial chemicals, paints, varnishes, etc. etc. 23,845, 25,493 and 7,612; Other industries 47,520, 53,803 and 14,853; All industries 1,35,778, 2,04,240 and 51,888.

During 1967, the total no. of working factories was 9,186 with an average daily employment of 8,93,822 workers.

Details about strikes, workers involved, and man-days lost for 1967 (actual) and 1968 (provisional) respectively are: 1967 (672; 2,54,790; 21,39,476); 1968 (618; 2,03,563; 16,14,744).

### **AGRICULTURE**

The crop-wise area for the years 1966-67 and 1967-68 respectively are (Fig. in 000 hectares): Rice 1,346; 1,367; Wheat 876; 891; Jowar 6,131; 6,246; Bajri 1,727; 1,821; Groundnut 1,058; 1,044; Sugarcane 161; 165; Cotton (Lint) 2,611; 2,794. Total cereals 10,555; 10,801; Total Pulses 2,232; 2,379; Tobacco 15; 18; Maize 38; 40; Barley 4; 4; Tur 547; 591; Gram 363; 393; Potatoes 10; 14; Chillies 167; 172; Sesamum 128; 141; Castor seed 5; 4; Rape, Mustard, Linseed 178; 195.

Sugarcane is grown in all the districts of the State except Greater Bombay, Thana and Kolaba districts, the major cane growing districts being Ahmednagar, Kolhapur, Poona, Nasik, Satara, Sangli, Sholapur, Osmanabad and Aurangabad. These nine districts have about 1·46 lakh hectares under sugarcane yielding 11·59 lakh M. tonnes of sugarcane (in terms of gur) in 1964-65. Estimated production of sugarcane in 1964-65 was 12·07 lakh tonnes.

The Marathwada districts have nearly 6.51 lakh hectares under oilseeds, the corresponding figures for Vidarbha districts being 3.37 lakh hectares. The western Maharashtra including Jalgaon has about 8.74 lakh hectares under oilseeds.

As regards cotton, the area (in lakh hectares) and production (in lakh bales of 180 kg. each) in Marathwada, Vidarbha and Western region including Jalgaon are as follows: Marathwada: 7·61; 2·57; Vidarbha: 15·78; 7·23; Western region: 4·85; 2·71.

Although the Konkan districts are lean in the production of food crops, they excel in horticultural wealth. Ratnagiri district had 10,000 acres under mangoes in 1964-65. Similarly, the district has 15,400 acres under cashewnut. Thana district is the home of bananas, with an acreage of 2,600. Nagpur oranges are well-known. They are grown in Nagpur, Amravati and Wardha Districts, which have about 28,500 acres under them. In Jalgaon district also the area under bananas is large viz. about 37,900 acres.

Rice is abundantly grown in the coastal districts of Thana, Kolaba, Ratnagiri and also in Chandrapur and Bhandara. It accounts for one sixth of the food grains grown in the state. Wheat accounts for a little more than one fifteenth. Millets are grown abundantly in the Deccan, Vidarbha and Marathwada districts. Jowar is the major cereals and accounts for half the production.

### LAND REFORMS

For the purposes of tenancy reform, Maharashtra State falls into the following main categories:—

- (i) The former Bombay areas consisting of 13 districts in which the Bombay Tenancy and Agricultural Lands Act, 1948 is in force;
- (ii) Vidarbha areas consisting of 4 districts of former Central Province and 4 Berar districts in which the Bombay Tenancy and Agricultural Lands (Vidarbha Region) Act, 1958 is in force;
- (iii) The Marathwada area consisting of 5 districts in which the Hyderabad Tenancy and Agricultural Lands Act, 1958 is in force.

The main provisions of these laws are more or less similar and they can broadly be grouped under the following five topics:—

(i) Security of tenure for tenants, (ii) Regulation of rent, (iii) Resumption of land by landlords for personal cultivation, (iv) Rights of ownership for tenants, (v) Land management.

Details about "Land Reforms" were given in the previous editions of the Directory.

The programme of consolidation of small and uneconomic holdings was completed in 5,680 villages by the end of March 1969, covering an area of nearly 43·12 lakh hectares (107 lakh acres). In the Western Maharashtra about 7,51,283 tenants have till March 1969 become owners of 16·81 lakh acres of land as a result of legislation for compulsory transfer of ownership from landlords to tenants. And in Vidarbha and Marathwada areas 30,211 and 44,991 tenants have till March 1969 become owners of 2·71 lakh and 6·33 lakh acres of land in those respective regions due to the scheme of compulsory transfer of ownership from landlords to tenants.

The Ceiling on Holdings Act, 1961 was brought into force in the State from 26-1-1962 and lands admeasuring about 87,000 acres belonging to Joint Stock Sugar Cos. and nearly 1.65 lakh acres of land from individual holders were declared surplus till 30-6-1969. The surplus land is being distributed in accordance with the provisions of Sec. 27 of the Act. Till the end of June 1969 lands admeasuring 39,849 acres were distributed to landless and other persons.

### MINERALS

The Maharashtra possesses many useful mineral deposits in the north-eastern and south western parts, the remaining areas being covered mostly by Deccan Traps. The rich deposits of iron ore, mostly confined to Ratnagiri and Chanda districts, large deposits of manganese ore, both of high and low grades, occurring in Vidarbha, particularly in Nagpur and Bhandara districts, extensive deposits of bauxite especially in Kolhapur, Ratnagiri, Kolaba and Thana and good reserves of coal in Vidarbha constitute the main mineral wealth of Maharashtra.

In addition to these major minerals, there also occur other minerals like ilmenite, chromite, dolomite, tungsten ore, mica, silica, limestone, clay, kyanite, sillimanite, corundum, copper ore, etc.

Iron Ore:—Very rich deposits of iron ore are located in various parts of Maharashtra, particularly in Ratnagiri district and in Chanda district of Vidarbha region. The reserves of iron ore in Ratnagiri district are estimated at about 48 m. tonnes, of which 20 million are workable. In Chanda district the reserves in Surajgarh deposit alone are estimated at 138 million tonnes of which 59 million are proved reserves. Estimated probable reserves in some of Surajgarh, Dhamkodwadvi ranges are placed at about 44 million tonnes. Reserves of magnetite in Bhandara district are estimated at about 4·3 million tonnes down to a depth of 30·4 metres.

Manganese:—The Vidarbha region has very large deposits of manganese ore, both of high and low grade. Most of the areas bearing high grade ore have already been leased out. The total inferred reserves of manganese ore in Nagpur and Bhandara districts are placed at 75 m. tonnes. For the present, a substantial quantity of manganese ore produced is exported in raw condition. The two ferromanganese plants located one each in Nagpur and Bhandara districts consume a sizeable quantity of ore. There is a heavy separation plant at Dongri Buzurg for beneficiating low grade ores.

In Bombay division also, the manganese ore appears to be occurring almost side by side with the three ironore belts running parallel in Ratnagiri district.

Bauxite:—Kolhapur district has rich deposits of bauxite. More than 47 million tonnes of bauxite exist in this zone. They occur at Udgiri, Dhangarwadi, Rangewadi, Radhanagari, Manbet and Idergang all in Kolhapur district.

In the coastal region, bauxite occurs in Ratnagiri, Thana and Kolaba districts and also in Satara and Sangli districts. The deposits of Ratnagiri lie in the up-ghat region at Amboli. The ore occurs at Tungar hills in Thana district and in the Borivli, Jogeshwari and Goregaon area. In Kolaba district, bauxite deposits of good quality have been reported at Dohane, Ambegaon and Wakalghar in Murud taluka and Wave and Shinona in the Shriwardhan taluka. The known total reserves of bauxite of all grades in the above districts are about 66 million tonnes, out of which 13 million tonnes are of high grade.

Coal:—Vidarbha is the only region in the whole of Maharashtra where coal is found. Coal occurs in four detached basins viz. Kamptee, Umrer and Bokhara in Nagpur district and Wardha Valley coal field in Chanda and Yeotmal districts. At present three mines, one each in Kamptee, Sillewara and Umrer in Nagpur district and six mines in Chanda district are working.

The estimated reserves of coal in Kamptee and Umrer are 700 mln. tonnes and 70 mln. tonnes, respectively. The reserves of Wardha valley are Chanda—136 million tonnes,

 $\begin{array}{lll} {\rm Ballarpur-2,000 \quad million \quad tonnes, \quad Sasti-Rajura-100 \\ {\rm million \ tonnes, \quad Mazri-50 \quad million \ tonnes, \quad Warora-60 \\ {\rm million \ tonnes, \quad Gughus-Telwasa-1,500 \quad million \ tonnes} \\ {\rm and \quad Rajur \ (or \ Wun)-240 \quad million \ tonnes.} \end{array}$ 

In Nagpur district the estimated total reserves are placed at 373 million tonnes.

On the basis of proved deposits of coal at Umrer and Sillewara an open-cast mine of one million tons capacity is already in production at Umrer by the National Coal Development Corporation and production from Sillewara is also expected soon. The coal produced from both the areas would be consumed mostly by the Khaparkheda thermal power station.

The total coal reserves in the Vidarbha region are of the order of 5,000 million tonnes.

Limestone:—The Marathwada region has limited mineral resources, which consist chiefly of building stones, semi-precious stones, zeolites and material for lapidary industry. Limestone deposits have, however, been discovered south-west of Mohada and Pardi in the Kinwat Taluka of Nanded district. The reserves in these deposits are estimated at 0.78 and 1.6 million tonnes respectively. The deposits are of poor quality.

Important deposits of limestone in Nagpur Division are located in Rajur, Mukutban, Sindola and Chanakha—Bhimkund in Yeotmal district and Warora, Rajura, Sangoda and Naranda-Pimpri in Chanda district. As a result of investigations carried out by the State Directorate of Geology and Mining about 140 million tonnes of limestone has been found in different areas of Yeotmal district and in entire Chanaka-Bhimkund belt the estimated reserves have been placed at 1,300 m. tonnes down to a depth of 20 metres. The estimated reserves of Yeotmal District are of the order of 5,000 million tonnes.

In Poona Division, limestone has been located at Kallur, Nandur, and Khanderawadi in Ahmednagar district. Recent surveys reveal good deposits of limestone in the Miraj taluka of Sangli district.

Reserves in Ahmednagar and Sangli districts are estimated at 0.5 and 1.5 million tonnes respectively.

Dolomite:—Extensive deposits of dolomite and dolomitic limestone occur in Yeotmal, Chanda and Nagpur districts of Vidarbha region. A reserve of 50 million tonnes of flux grade dolomite has been proved in Wani tehsil, Yeotmal district. The reserves of dolomitic marbles in Nagpur district are estimated at 186 million tonnes. The dolomite of Nagpur and Yeotmal districts is used as flux by the ferromanganese plants situated in Kanhan and Tumsar.

The distribution of some other minerals is :-

Ilmenite:—Deposits of ilmenite sand (ilmenite content—70 to 76 per cent) occur sporadically along a 40 kilometre long coastal belt from Purnagarh to Malgund and beyond in Ratnagiri district. Probable reserves at some important localities like Rajwade, Bhatia, Ratnagiri, Purnagarh, Gaonkhedi and Malgund are about one million tonnes. These are not worked at present.

Chromite:—Ratnagiri District (Kankavali, Vagda), estimates 72,300 tonnes, and Bhandara district (Pauni), estimates 487,700 tonnes.

Silica:—Ratnagiri District: Important deposits are located at Math, Vetora, Tendoli, Walawal, Chendwan, Phonda Ghat and Kasarde. Estimated reserves over 50 million tonnes. The silica sand is useful for foundry and chemical industries like Sodium Silicate.

Clay:—Ratnagiri District (Talegaon, Malvan, Vengurla, Kudal, Sawantwadi); Thana District (Ghokhara Mouza near Bassein Road); Nagpur District (Bozargaon, Shemda, Khapri); Amravati District (Belkher, Kharaili, Pandhari); Chanda District (Kothari, Isapur, Ballarshah, Junona, Bhandak). Some leased for pottery works at Nagpur, Jabalpur and Chanda.

Kyanite, Sillimanite and Corundum:—These minerals occur at Pohara, Gobarwahi, Dahegaon, Mugra and other places in Bhandara District. The probable deposits of kyanite and sillimanite in Dahegaon-Pimpalgaon have been estimated at 2·5 million tonnes.

Tungsten:—Wolframite with occasional association of scheelite is reported from Agargaon in Nagpur District.

Barytes:—Barytes occurs at Thaneswasna in Chanda district, where the probable reserves are estimated at 26,450 tonnes.

In 1967, the total value of mineral production (excluding minor minerals, common salt and atomic minerals) in Maharashtra was Rs. 85·14 million as against Rs. 77·55 million in 1967. The State ranked tenth in mineral production in the country in 1968.

The table below gives production of various mineral during 1967 & 1968 and the value.

							19	067	1968	
Minerals				arit mou	Quantity Value (Tonnes) (Rs. '00		Quantity (Tonnes)	Value (Rs. '000)		
Bauxite		and signed		No. of the	-	98213	23,487	271	45,744	A CONTRACTOR OF THE PARTY OF TH
China clay	(salea	ble cru	ide)			7197	3,333	23	2,818	547 17
Chromite							237	23	627	68
Coal		different contract of the cont					1,337,000	38,572	1,562,000	50,156
Corundum		The second					13	2	20	3
Dolomite		No. of Street	1 1				10,050	82	21,855	189
dypsum	80		1	7			84	9	21,000	109
ron ore		OF THE	<b>MARKETA</b>	Jan Fred II	1		190,018	3,108	207,667	3,209
imestone		**			1000		115,162	628	64.180	341
Manganese	ore			1000			329,400	34,700	289,887	30,446
Ochre		Un ****					745	8	991	12
Quartz & Si	lica	1.00	Share and	-	100		15,128	123	18,688	156

# GREATER BOMBAY

The area of Greater Bombay is 186 sq. miles and the population 4,152,056 (1961 Census). The population of Greater Bombay has increased by 1.8 million since the last census in 1961. The present population (1970) is nearly six million, according to a rough estimate that has emerged from preliminary investigations in connection with the decennial national census due to begin from February 1971.

The area of Bombay City is 26 sq. miles and the area of the Bombay Suburban District is 160 sq. miles. For population see under "Population".

The northern boundary runs from the north of Dahisar village in the west, in the centre between the milestones 21 and 22 on the Agra Road.

The municipal area of Greater Bombay described above is also the area covered by Bombay City and the Bombay Suburban District from the point of view of revenue division.

The Collector for Bombay City is also the Collector for the Bombay Suburban District. Bombay City Collectorate is directly under the Government and is governed in accordance with the provisions of the Maharashtra Land Revenue Code, 1966.

The Bombay Suburban District has besides the Collector, one Additional Collector, one District Deputy Collector, one Additional District Deputy Collector and three Mamlatdars one for each of the Talukas. Andheri (also called South Salsette) with headquarters in Andheri, Borivli with headquarters in Borivli and Kurla with headquarters at Mulund (with effect from Aug. 16, 1962). The headquarters of the Additional District Deputy Collector is at Andheri.

There are 35 Presidency Magistrates Courts out of which two are created for the trial of railway cases and one

Juvenile Court for the trial of children act cases. Besides there are 12 courts of Honorary Presidency Magistrates, 10 Police Divisions and 39 police stations in Gr. Bombay.

# COMMERCE AND INDUSTRY

Commercially and industrially Bombay is the second, if not the first city in India. It is the principal centre of the cotton textile industry (56 cotton mills with 58,547 looms and 31,06,502 spindles). Its share in looms and spindles is 32.45 per cent and 24.06 per cent respectively of the total in the country. There are over 566 textile factories including silk, woollen and hosiery; over 986 engineering undertakings; over 146 establishments manufacturing articles of food, drink and tobacco; over 256 establishments producing chemicals, etc.; 19 hides and skins processing concerns, and over 2,000 factories of a miscellaneous character.

The Reserve Bank of India, the central banking and currency authority has its Central Office in Bombay and 33 Indian Scheduled Commercial Banks operate in Bombay. Of the Indian Scheduled Commercial Banks four have their registered offices here. There are 14 foreign Scheduled Commercial Banks (including one Pakistani bank, which is presently administered by the Custodian of Enemy Property) in Bombay. Of these, eight have their principal offices located in Bombay.

Being the best natural harbour in India, the trade carried through Bombay is about 46 per cent of the total trade of India. The principal items of import are bricks, cement, sand, etc.; China clay; coal; cotton; glassware; grain; hardware; iron and steel; kerosene; fuel oil; motor vehicle parts; machinery; boilers and railway materials; oilman stores; oils; vegetables, etc.; paper; piece-goods; petrol; sugar; timber; twist and yarn; Government and naval and military stores.

The main exports are coal; cotton; flour; groundnuts; hemp; hides and skins; kerosene and fuel oils; manganese ore; myrobalans; oil-cake; piece-goods; seeds; spices; sugar; wool packages; twist and yarn; Government and naval and military stores.

The total returns to the Central Government from Greater Bombay in customs revenue for the year 1968-69 was about 44.35 per cent of the total revenue from the seaborne and airborne trade of India. The total income-tax collections to the Central Government from Greater Bombay during the year 1968-69 was Rs. 664 crores which is about 32 per cent of the total income from the country. The Corporation Tax amounts to Rs. 117 crores, about 49.5 per cent of the total collections in Gr. Bombay.

### COMMUNICATIONS

From the communications point of view Bombay holds a unique position. There are numerous air routes connecting Bombay with the rest of the country, and it is also directly linked with foreign countries aerially. The head offices of two chief railway systems, the Central and Western Railways are in Bombay which is rail linked with Calcutta, Delhi, Nagpur and Madras. It is the second

biggest port and the chief sea communications centre of India. Greater Bombay's transport requirements are met by the local services of the two railways, Central and Western, besides the bus services of the municipalised Bombay Electric Supply and Transport Undertaking.

#### HOUSING

Statement showing the number of tenements constructed and completed by the Maharashtra Housing Board from April 1, 1947 to Dec. 31, 1968 in the Greater Bombay area, under the respective groups: Old industrial housing scheme 2,608; scheme for B.S.O.R. 500; old low income group housing scheme 2,075; military hutments 1,575; subsidised industrial housing scheme 26,918; rehabilitation scheme 19,715; new low income group housing scheme 7,769; slum clearance scheme 14,921; housing scheme for dishoused persons 200; middle income group housing scheme 1,600; economically weaker section housing scheme 790; Deposit Contribution Scheme 464; Total 79,135; acquisition and development of lands 515 acres; Juhu-Vile Parle development scheme 426 acres; Total 941 acres; Total expenditure incurred during the above period for the whole State Rs. 4,424.87 lakhs. (This is exclusive of Vidarbha region).

# THE GREATER BOMBAY CORPORATION

To improve the tempo of civic amenities and to add substantially to the convenience of the public, the administration was divided ward-wise from 1964-65.

The municipal area of Greater Bombay is now divided into 17 administrative wards. These are A, B, C, D, E, F (North); F (South); G (North); G (South); H; K; L; M; N; T; P; R.

For election purposes the municipal area of Greater Bombay is divided into 140 electoral wards—numbered 1 to 140.

The municipal government of Greater Bombay vests in the Municipal Corporation, composed of 131 representatives elected on adult franchise.

The Corporation has four statutory committees, the Standing Committee, the Improvements Committee, the Bombay Electric Supply and Transport Committee and the Education Committee.

The executive power in regard to general municipal administration vests in the Municipal Commissioner. The administration of the B.E.S.T. Undertaking, however, vests in the General Manager, B.E.S.T.

The Corporation is required to meet at least once a month. In actual practice it meets twice a week and oftener if necessary. Meetings of the Corporation are presided over by the Mayor who also convenes the meetings. The Mayor's term of office is one year and he is elected at the first meeting in April.

As per provisions of the Bombay Municipal Act relating to elections amended under provisions of Maharashtra Act No. VIII of 1965, the Municipal General Election was held early in 1968 on the basis of single member constituencies consisting of 140 wards. The term of the constitution was raised from 4 to 5 years.

The four most important officers of the Corporation are the Municipal Commissioner, the General Manager of the Undertaking, the Municipal Secretary and the Municipal Chief Auditor.

### **EDUCATION AND MEDICAL RELIEF**

Primary education is free and compulsory in the Lower Primary standards and the upper primary classes of the Municipal Schools all over Greater Bombay. It is the special responsibility of the Corporation.

But only about 88 children out of 100 receive an education.

There were 1,019 Municipal Schools and Classes conducted by the Education Committee and 562 Aided and Recognised Schools. The total number of pupils in Primary Schools was about 6,64,797 out of whom 4,91,332 were in Municipal Schools and the rest in other Schools. The Corporation spent about Rs. 8,25,97,770 on primary and secondary and vocational education including office in 1968-69. Of this Government contributed Rs. 71,86,340. There was a net increase of 10,121 pupils in Municipal Schools during the year.

Education cess collected during 1968 was Rs, 1,42,50,059.

With the sanction of the State Government the Corporation has started 27 secondary schools. Instruction is imparted through Marathi, Gujarati, Urdu, Hindi and Kannada.

The Municipality maintains the Victoria and Albert Museum at Victoria Gardens and 22 libraries and free reading rooms.

Medical Relief: The Municipality runs one large hospital for infectious diseases (except tuberculosis, venereal disease and leprosy) at Sane Guruji Road and three other large general hospitals in the City proper (K.E.M.; Nair and the Lokamanya Tilak Hospital, previously known as the Sion Hospital) and a group of hospitals for the treatment of tuberculosis at Sewri, an isolation centre at Dadar and four clinics and an ear, nose, throat hospital at Napier Road. Altogether 1,288 beds are reserved for T.B. patients. In the Suburbs there are five small general hospitals and 1

T.B. Clinic and 400 beds reserved for T.B. patients. Medical treatment is administered also through 61 general dispensaries, 2 Ayurvedic dispensaries, 1 Unani, 6 women's and children's clinics, 11 Mobile Hospital Units, and 23 Maternity Homes and 29 maternity and child welfare centres. The five general hospitals have maternity wards where maternity cases are treated free of charge. There are 52 family welfare planning centres in Greater Bombay. Anti-rabic treatment is given free of charge at the K.E.M., Nair and Lokamanya hospitals as well as the Bhabha Hospital at Bandra, the Municipal General Hospital at Ghatkopar (at Rajawadi); K. B. Bhabha Hospital, Kurla and Smt. M. T. Agarwal Municipal General Hospital, Mulund.

### WATER SUPPLY

The water supply of the City is drawn from four lakes: Tansa, Vaitarna, Vihar, Tulsi and Ulhas river. The Tansa lake combined with Vaitarna has the maximum supply capacity and it is the main source of water supply. It is situated about 66 miles north-east of Bombay. The Vihar lake can supply 20 million gallons a day exclusively to the north-east part of the City and also partly to Chembur and Kurla. It is situated about 18 miles north of Bombay. The Tulsi Lake which is to the north-west of Vihar Lake supplies 3 million gallons a day.

Under Section 140 of the Bombay Municipal Corporation Act the Corporation can levy water tax on buildings, lands and premises in the City. The tax is fixed as a certain percentage of the rateable value of the building, land or premises. The supply of water to any premises can be cut off in default of payment of water tax or any sum due for water or hire of meter or expenses of work done.

If the Municipal Commissioner finds that any premises are not provided with an adequate supply of pure water he has the power under Section 271(2) to compel the person who pays the property tax to obtain an adequate supply from Municipal Water Works and carry out all such works as is necessary for a proper distribution of water.

For purposes of distribution Bombay is divided into five divisions, viz., area getting supply from (a) Malabar Hill Reservoir, (b) Bhandarwada Hill Reservoir, (c) Worli Hill Reservoir, (d) Gollanji Hill Reservoir and (e) directly from trunk mains.

Total water supplied to Greater Bombay per day during 1968-69 was about 206.87 million gallons.

Quotas have been fixed to limit the consumption of industries requiring more than 32,996 gallons of water per month.

The schemes envisaged to augment the present water supply are: Rs. 5·25 crores Dahisar river dam, which is expected to yield 6 million gallons of water per day and construction of a dam on the Upper Vaitarna river. Other schemes are the Bhatsai, Kalu and Ulhas river schemes. The Govt. of Maharashtra permitted the Municipal Corporation to draw surplus water from Ulhas river.

The Municipal Corporation will have to make arrangements to convey the additional supply (full supply estimated at 120 million gallon per day) by laying an additional pipe line from Tansa to Bombay. The work of driving a tunnel from Mulund to Kandivli is already in progress. The Corporation will also have to construct additional service reservoirs and distributory mains in Greater Bombay area for proper distribution of water. All the works are likely to cost about Rs. 42·2 crores.

Regular bacteriological and chemical analysis of water is carried out by the Municipal Analyst,

### PUBLIC HEALTH DEPARTMENT

The Department is divided into several branches such as environmental sanitation, food sanitation and food adulteration, vital statistics, regulation of places for disposal of the dead, prevention and control of communicable diseases, maternity and child hygiene, family planning, medical relief and health propaganda.

The vaccination staff includes a Superintendent, a Head Vaccinator, a number of vaccinators including a Lady Vaccinator. There are 84 public vaccination stations 7 of which work daily at: 1. The Central Vaccine Depot, Parel. 2. The Sanitary Institute Building, Princess Street. 3. Municipal Suburban Offices, Waterfield Road, Bandra. 4. Andheri Maternity Home, Andheri. 5. Seth N. L. High School, Malad, 6. Kasturba Hospital, Sane Guruji Road. 7. Ferry wharf (closed from June 1, to Sept. 30). The remaining centres work on one day every week by rotation for about 2½ hours. Vaccinations are also done at the Municipal general hospitals. The Govt. of Maharashtra has declared Greater Bombay to be an area of compulsory vaccination.

Hygiene includes maternity and child welfare, family planning and school health.

There are 29 maternity and child welfare centres in Greater Bombay and five maternity wards in general hospitals, each in charge of a Lady Medical Officer. A number of Health Visitors do the follow-up work and ensure domiciliary care under the direction of the Lady Medical Officers. A small maternity unit is conducted at Dharavi. Expectant mothers are encouraged to attend ante-natal clinics, of which there are 27 in number. Maternity Homes in the City are at Cadell Road, Victoria Road, Bellasis Road, Khetwadi, Imamwada Road and Naigaum. Child welfare clinics are conducted (besides the Maternity Homes) at Fergusson Road Dispensary, Dadar Main Road Dispensary, Ambewadi Dispensary at Parel Tank Road, District Dispensary at Souter Street, Tardeo Flats Dispensary, District Dispensary at Charni Road, District Dispensary at Panjrapole, Palton Road Stables Dispensary. Four child health centres, two wellbaby centres and three paediatric centres are conducted at Maternity homes.

There are 52 family welfare planning clinics conducted at Municipal maternity homes and hospitals and railway stations where instruction and advice in the spacing of births are given. Operative procedures are done at the larger Municipal hospitals as well as at Naigaum Maternity Home on a voluntary basis only. In addition six information-cum-distribution centres with vasectomy operations were started in co-operation with the Central and Western Railways. Two more such centres are conducted at Nana Chowk and Worli.

School Health Work is limited to Municipal Schools only and is under a Medical Officer. Children found to have defects are taken for treatment in school buses to the school clinic at K.E.M. Hospital. Dental care is given at the Dental Clinic at the Bai Yamunabai L. Nair Hospital. All children in municipal schools are given free milk on working days.

The Public Health Laboratory which is under the charge of a Municipal Analyst conducts routine and special examinations of water, sewage, food, urine, blood and sputa of patients at Municipal Institutions. There is also a Health Museum maintained for the education of citizens.

Conservancy includes cleansing of streets, etc., removal and disposal of refuse, destruction of rats and dogs, veterinary service, removal of carcasses, disinfection, ambulance and so on. Medical Relief is given at the following hospitals:

K.E.M., Nair, Lokmanya Tilak Hospital, R.P.T.B. and Kasturba Hospital, at 61 Municipal General Dispensaries, 11 Mobile Hospital units, one Eye Hospital and Dispensary and an Ear, Nose and Throat Hospital.

## WELFARE WORK

'The Bombay Civic Journal' published by the Municipal Corporation, deals with the activities and problems not only of the Bombay Municipality, but also of other local bodies all over the country and seeks to foster 'an objective discussion of civic issues and the larger questions relating to local self-government from the national angle'.

The Public Relations Department, besides doing educative publicity through films, posters, pamphlets, press notes etc., has also been issuing useful booklets for the guidance of citizens.

Other activities include the production of films for health education, the introduction of various modern devices for traffic movement, starting of a unit for research in primary education, the opening of a municipal bank, the building of two open-air theatres for the recreation of citizens, holding of civic exhibitions, organisation of health and cleanliness weeks, conducting of seminars, establishment of an electric crematorium, construction of sub-ways, two fly-overs and the starting of a department of preventive and social medicine at the Topiwala National Medical College and a convalescent home at the K.E.M. Hospital and maintenance of a swimming pool.

# GREATER BOMBAY (1968-69)

Area: About 1,08,787 acres.

Population: 41,52,056 (1961 census) (City 27,71,933; Suburbs 10,36,585; Extended suburbs 3,43,538). The mid-year (1968-69) estimated population of the city, suburbs and extended suburbs was over 55,34,000. In 1970, it is nearly six million according to a rough estimate.

Below we give particulars about Greater Bombay:

No. of Hospitals (Municipal, Government and Private) 21; No. of Municipal Hospitals 14; No. of Municipal Dispensaries incl., of women and children as well as Ayurvedic Dispensaries 70; No. of Primary Schools (Municipal and Private) 1,581; No. of pupils in all Primary Schools 6,64,797; No. of Municipal Primary Schools 1,019; No. of children in Municipal Primary Schools 4,91,332; No. of teachers in Municipal Primary Schools 13,893; No. of Municipal Medical Colleges 4 including a Dental College; No. of Motor Vehicles and animals 1,09,425; Road Mileage about 1,003-86; No. of Markets (municipal and private) 89 including 7 slaughter houses; No. of gardens, open spaces etc. 170; No. of Fire Brigade Stations 14; No. of fire alarms 214; Total no. of Municipal employees 45,000 including those engaged on temporary and daily wages basis and excluding the B.E.S.T.; Annual wage bill of employees about Rs. 1,333.04 lakhs.

### CITY

Below we give some facts about the City for 1968-69:

Area of the City: 67.78 sq. kms.; Population: 35,84,000 according to mid-year estimates; Density of population: 43,083 per sq. km.

INCOME (in Rs.): Actuals for 1968-69: General Tax etc. 21,36,88,716; Water Tax at  $4\frac{1}{2}$  per cent including other receipts from Water Works 5,30,03,995; Halalkhore Tax at  $3\frac{1}{2}$  per cent including receipts from special service 1,53,96,422; Total income (Rs.): 32,52,31,568.

EXPENDITURE (Rs.): City proper for 1968-69: Primary Education (for City and Suburbs including Cess plus grants) 5,99,73,600; Medical Relief 5,44,46,091; Water Works 5,75,59,589; Public Health 1,33,20,869; Fire Brigade 31,39,655; General Supervision, etc. 1,67,34,842; Contributions 6,05,99,906; Street Cleaning etc. 4,28,45,500. Total expenditure including other items 39,80,07,224.

TAXES, LOANS, ETC. (Rs.) 1968-69: Incidence of taxation per head 89·13; Total rateable value of properties 43,14,65,410; Properties registered in the Assessment Book 80,551; Rateable value per head of population 141·32; Redemption or Sinking Fund in hand or invested 26,28,50,142; Not loan debt (City & Suburbs) 71,87,12,839; Net debt per head of population 173·10.

BIRTHS AND DEATHS (1968)—For Greater Bombay: Total number of live births registered during the year 1,56,880; Total number of deaths during the year 50,439.

## BUDGET 1969-70 (Revised Estimates)

Here are a few salient features of the City Budget for 1969-70 as adopted by the Municipal Corporation (Rs.): Opening balance on April 1, 1969: 394.57 lakhs; Income on existing basis of taxation 4,829.69 lakhs; Expenditure 5,000.60 lakhs; Deficit 170.31 lakhs; Closing Balance 224.86 lakhs.

Revenue Account :

New or increased provisions made on revenue account are in respect of medicines, drugs, stores, diets in hospitals and dispensaries, collection and transport of refuse and maintenance of roads, gas and electric lighting etc.

Loan Works: (1969-70)

The Loan Works programme includes provision for completion of works already in progress and new works necessary in the interest of health, sanitation, water supply and other civic services. The total amount provided for 1969-70 is Rs. 2,214-60 lakhs including Rs. 189-12 lakhs for plant and machinery.

Some of the major works for which funds have been provided are as under:—Rs. 30 lakhs for construction of an eight storeyed hospital building on the site of T.N.M. College in the premises of the Nair Hospital, etc.; Rs. 31 38 lakhs for resurfacing of major roads in the city; Rs. 31 62 lakhs, Rs. 30 lakhs and Rs. 17 lakhs respectively for set-backs for improvement of roads in the city, suburbs and extended suburbs; Rs. 18 lakhs for realigning and regrading wherever necessary and covering open storm water channel from Dadar Pumping Plant to Century Mill; Rs. 37 lakhs for widening and improvement, etc. of Sion-Trombay Road.

Total Loan Funds (1970-71): Rs. 2,130-69 lakhs.

A loan of Rs. 1,400 lakhs is proposed for financing the capital expenditure.

## SUBURBS (1968-69)

Area of the Suburbs: 175.08 sq. kms.; Population: 13,14,000 according to 1968 mid-year estimates; Density of population: 6,900 per sq. km.

INCOME: (Revenue Account) Actuals (Rs.):

General Tax 3,51,79,449; Water Tax by measurement (including other receipts from Water Works) 2,02,16,420; Halalkhore Tax at 3½ per cent including receipts from special service 46,49,747; Total income, including revenue

from other sources 6,74,25,853; Rate charged for water supplied by measurement from Rs. 1.65 to Rs. 5.50 per 10,000 litres according to class of property.

EXPENDITURE (Rs.): Education (Primary) (See under City); Medical Relief 67,53,555; Water Works 1,60,85,573; Public Health 60,49,488; Fire Brigade 7,10,684; General Supervision etc. 19,46,810; Street Cleaning 1,39,18,513; Contributions 78,86,550; Total expenditure including other items 7,41,68,748.

TAXES, LOANS ETC. (1968-69) (Rs.): Incidence of taxation per head (as per census of 1961) 35·83; Total rateable value of properties 16,96,40,516; Properties registered in the Assessment Book 72,476; Rateable value per head of population (as per census of 1961) 123·80: Loan liability 1.316·02 lakhs.

## EXTENDED SUBURBS

Area of Extended Suburbs: 194.00 sq. kms. Population: 4,44,000 according to 1968 mid-year estimate. Density of population: 2,090.

INCOME: Actuals for (1968-69) (Rs.): General Tax 1,26,96,013; Water Tax (including other receipts from Water Works) 57,08,630; Halalkhore Tax 18,39,448; Total income, including revenue from sources 2,33,61,089.

EXPENDITURE (Rs.): Medical Relief 29,53,885; Water Works 47,36,343; Public Health 20,79,064; General Supervision, etc. 7,04,454; Street Cleaning, etc. 39,79,301; Contributions 23,46,080; Fire Brigade 84,794; Total expenditure 2,30,26,125.

LOANS, TAXES ETC. (1968-69) (Rs.): Incidence of taxation per head as per 1961 census 26.30; Total rateable value of properties 7,26,67,459; Properties registered

in the Assessment Book 2,459; Rateable value per head of population 151.40; Loan liability was Rs. 407 lakhs.

# B.E.S. & T. UNDERTAKING

(Of the Bombay Municipal Corporation)

Particulars relating to 1968-69 are: Total staff in the Undertaking 23,190.

Bus Section: No. of vehicles including luxury buses for tourists 1,368; Route kilometres 1,340·2; No. of passengers carried per day 20,29,061; Specially-built luxury buses for tourists 4; Total income for the year Rs. 13,52,02,370; Total expenditure (excluding passenger tax) Rs. 14,46,83,469.

Electric Supply Section: Total number of units purchased 942.8 million; Total number of units sold (Supply) 888.59 million; Total number of units sold (Traction) 0.44 million; Total number of consumers 3,99,029; Total income Rs. 11,53,06,794; Total expenditure Rs. 9,97,37,757.

## Budget, 1969-70

INCOME—General Administration: Rs. 38,80,500; Electric Supply Rs. 11,91,17,500; Buses Rs. 13,57,47,000; Trolley Buses Rs. 13,08,100; Total Rs. 26,00,53,100.

EXPENDITURE—(Including share of administrative expenses): Electric Supply Rs. 10,12,15,968; Buses Rs. 15,52,22,607; Trolley Buses 15,02,055; Total Rs. 25,79,40,630.

Appropriation to statutory and other funds or objects Rs. 20,12,470; Estimated closing balance Rs. 1,00,000; Total Rs. 26.00,53,100.

# UNIVERSITY OF BOMBAY

### Bombay 1.

Chancellor: Dr. Nawab Ali Yawar Jung Bahadur, Governor of Maharashtra, Vice-Chancellor: Dr. P. B. Gajendragadkar, Rector: Vacant, Registrar: T. V. Chidambaran.

# Number of students as on 1st August 1968.

Students in Un Students in cor	iversity istituen	Depart t college	tment es	is		2,864 79,252
Students in	reco	gnised	po	st-grad	uate	
institutions	m: ,				1700	660
	Total	200		No. of the last	100	82,776

### Budget Estimates, 1969-70

			(F	s. in lakhs)
		Recurring	Non- recurring	Total
Income	UPACKE)	Rs. 172 · 25	Rs. 82·36	Rs. 254·61
Expenditure State Govt.		178-46	86.40	264.86
Grants	••	19.11	<del>-</del>	19-11

### List of Colleges (1969-70)

Arts and Science Colleges: (1) Elphinstone College, Fort, Bombay-32. (2) St. Xavier's College, Mahapalika Marg, Bombay-1. (3) Willson College, Bombay-7. (4) Ismail Yusuf College, Jogeshwari, Bombay 60. (5) Ramanarain Ruia College, Matunga, Bombay-19. (6) Khalsa College, Matunga, Bombay-19. (7) Sophia College for Women, Bhulabhai Desai Road, Bombay-26. (8) Siddharth College of Arts and Science, Anand Bhavan, Dr. D. N. Road, Fort, Bombay-1. (9) Jai Hind College and Basantsing Institute of Science, 23-24, Backbay Reclamation, 'A' Road, Fort, Bombay-20. (10) M.M. College of Arts and N.M. Institute of Science, (Bhavan's College), Andheri, Bombay-58. (11) Rishi Dayaram and Seth Hassaram National College and Seth Wassiamul Assomul Science College, Bandra, Bombay-50. (12) D. G. Ruparel College, Tulsi Pipe Road, Matunga, Bombay-16. (13) Kishinchand Chellaram College, Dinshaw Wachha Road, Bombay-20. (14) D.E. Society's Kirti M. Doongursee College of Arts and Science, Dadar, Bombay-28. (15) Parle College, Vile Parle (East), Bombay-57. (16) South Indian Education Society's College of Arts and Science, Sion (West), Bombay-22. (17) K. J. Somaiya College of Arts and Science, Ghatkopar, Bombay-77. (18) Shri Vile Parle Kelavni Mandal's M. M. College of Arts and M. D. C. Institute of Science, Vile Parle (West), Bombay-56. (19) Maharshi Dayanand Education Society's College of Arts and Science, Kamgar Manzil, 25, Government Gate Road, Parel, Bombay-12. (20) Smt. Parvatibai Chowgule Cultural Foundation's College of Arts and Science, Margao,

Goa. (21) The Goa Education Society's Dhempo College of Arts and Science, Panaji, Goa. (22) Seth Laherchand Uttamehand Jhaveri College of Arts and Mathurdas Vissonji College of Science, Andheri (East), Bombay-69. (23) Ramniranjan Jhunjunwala College, Ghatkopar, Bombay-77. (24) St. Xavier's College, Mapuca, Goa. (25) The Chikitsaka Samuha Sir Sitaram and Lady Shantabai Patkar College of Arts and Science, Goregaon (West), Bombay-62. (26) Carmel College for Women, Nuvem, Goa. (27) Hazarimal Somani College of Arts and Science, Chowpatty, Bombay-7. (28) Maharashtra College of Arts & Science, Bellasis Road, Bombay 8.

Science College: The Institute of Science, Fort, Bombay-1.

College of Home Science: College of Home Science, Nirmala Niketan, 38, New Marine Lines, Bombay-20.

Commerce Colleges: (1) Sydenham College of Commerce and Economics, 'B' Road, Churchgate Reclamation, Bombay-20. (2) R. A. Podar College of Commerce and Economics, Matunga, Bombay-19. (3) Siddharth College of Commerce and Economics, Anand Bhavan, Dr. Dadabhai Nowroji Road, Fort, Bombay-1. (4) H. R. College of Commerce and Economics, Dinshaw Wachha Road, Churchgate, Bombay-20. (5) M. L. Dahanukar College of Commerce, Dixit Road, Vile Parle (East), Bombay-57. (6) Smt. Mathibai Motiram Kundnani College of Commerce and Economics, Bandra, Bombay-50. (7) Chinai College of Commerce, Andheri (East), Bombay-69. (8) Shri Vile Parle Kelavani Mandal's Shri Narsee Monji College of Commerce and Economics, Juhu Development Scheme, Vile Parle (West), Bombay-56. (9) Anjuman College of Commerce, Maulana Shaukat Ali Road, Bombay-8. (10) The Goa Education Society's College of Commerce, Panaji, Goa.

Training Colleges: (1) Secondary Training College, 3, Mahapalika Marg, Bombay-1. (2) St. Xavier's Institute of Education, 15, New Marine Lines, Opp. U.S.I.S. Library, Bombay-20. (3) Sadhana School of Educational Research & Training, Near Lion's Park, Juhu Road, Santa Cruz (West), Bombay-54. (4) Bombay Teachers Training College, Kittridge Road, Cuffe Parade, Colaba, Bombay-5. (5) Hansraj Jivandas College of Education, Samshodhan Sadan, Junction of 16th and 17th Road, Khar, Bombay-52. (6) Institute of Education, Nossa Senhora da Piedade, Panaji, Goa.

Engineering Colleges: V. J. Technical Institute, Matunga, Bombay-19. (2) Sardar Patel College of Engineering, Andheri, Bombay-58. (3) College of Engineering, Panaji, Goa. College of Pharmacy: Goa College of Pharmacy, Panaji, Goa.

Law Colleges: (1) Government Law College, Opp. Churchgate Station, Bombay-20. (2) New Law College, Tulsi Pipe Road, Matunga, Bombay-16. (3) Siddharth College of Law, Anand Bhavan, Dr. D. N. Road, Fort, Bombay-1. (4) Kishinchand Chellaram Law College, Dinshaw Wachha Road, Bombay-1.

Medical, Dental and Nursing Colleges: (1) Grant Medical College, Byculla, Bombay-8. (2) Seth G. S. Medical College, Parel, Bombay-12. (3) Topiwala National Medical College, Lamington Road (North), Bombay-8. (4) Goa Medical College, Panaji, Goa. (5) Tilak Memorial Medical College, Sion, Bombay-22. (6) Government Dental College & Hospital, St. George's Hospital Compound, Bombay-1. (7) Nair Hospital Dental College, Lamington Road (North), Bombay-8. (8) College of Nursing, New Nurses' Quarters, Sir J. J. Hospital Compound, Byculla, Bombay-8.

College of Architecture: Sir J. J. College of Architecture, Dr. Dadabhai Nowroji Road, Fort, Bombay 1.

# S. N. D. THACKERSEY WOMEN'S UNIVERSITY

1, Nathibai Thackersey Road, Maharshi Karve Road, Bombay 20.

The University conducts an Arts College, a College of Nursing, a College of Education, a College of Home Science, and a School of Library Science at Bombay, and one Arts College, a College of Education and a College of Home Science at Poona. It also conducts three High Schools at Bombay and Poona. Five Colleges at Ahmedabad, Bhavnagar, Baroda, Surat and Matunga are permanently affiliated to this University and seven colleges at Ghatkopar, Gamdevi, Surendranagar, Visnagar, Malad, Vile-Parle and Navsari are temporarily affiliated to it.

Chancellor: Governor of Maharashtra. Vice-Chancellor: Smt. Sharda Divan. Registrar: Smt. Kamalini H. Bhansali.

Budget: 1969-70:

	Recurring	Non- Recurring	Total
	Rs.	Rs.	Rs.
Income:	42,36,300	30,75,200	73,11,500
Expenditure:	51,23,100	41,28,200	95,51,300
Commission of the Commission o			

Degrees Awarded: B.A., M.A., Ph.D., B.Ed., M.Ed.; B.Sc. Home Science; M.Sc. Home Science; B.Sc. Nursing; B.Lib. Science.

# **ASSOCIATIONS**

# TRADE & COMMERCIAL ASSOCIATIONS IN GREATER BOMBAY

ADVERTISING AGENCIES ASSOCIATION OF INDIA 111A, Mahatma Gandhi Road, 2nd Floor, Opp. Rajabhai Clock Tower, Bombay 1.

ALKALI MFRS. ASSOCIATION OF INDIA Bansilal Mansion (2nd Floor), 11, Bruce Street, Bombay 1. Secretary: V. K. M. Menon.

ALL INDIA ASSOCIATION OF INDUSTRIES C/o Amratral & Co., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

ALL INDIA ASSOCIATION OF INDUSTRIES Merchant Chamber (4th Floor), 41, New Marine Lines, Bombay 20. ALL-INDIA AUTOMOBILE AND ANCILLARY INDUSTRIES ASSOCIATION

80, Dr. Annie Basant Road, Worli, Bombay 18.

ALL INDIA BALL BEARING MERCHANTS
ASSOCIATION

53, Bajipala Lane, Bombay 3.

ALL INDIA BOBBIN MANUFACTURERS
ASSOCIATION

Arun Chambers, Tardeo Road, Bombay 7.

ALL-INDIA COTTONSEED CRUSHERS
ASSOCIATION

198, J. Tata Road, Bombay 20.

Chairman: M. P. Mansinghka; Vice-Chairmen: D. D. Vadalia, E. A. Kader; Secretary: R. V. Koppikar.

ALL INDIA FEDERATION OF CO-OPERATIVE SPG., MILLS LTD.

Jehangir Building, Mahatma Gandhi Road, Bombay 1.

ALL INDIA FEDERATION OF MASTER PRINTERS Red Building, Horniman Circle, Fort, Bombay 1.

ALL-INDIA FOOTWEAR MANUFACTURERS' ASSOCIATION

"Nirmal", 241, Backbay Reclamation, Nariman Point, Bombay 20 BR.

ALL-INDIA GLASS MERCHANTS' ASSOCIATION 116, Abdul Rehman Street, Bombay 3.

ALL-INDIA HANDLOOM FABRICS MARKETING CO-OPERATIVE SOCIETY LTD.

Janmabhoomi Chambers, Fort Street, Bombay 1.

ALL-INDIA IMPORTERS' ASSOCIATION 32, Nariman Road, Bombay 1.

ALL-INDIA INSTRUMENT MANUFACTURERS' & DEALERS' ASSOCIATION

A-32, Navyug Nivas, Lamington Road, Bombay 7 (WB).

ALL INDIA MACHINERY MERCHANTS ASSOCIATION

Room No. 30, 2nd Floor, 105, Apollo St., Bombay 1.

ALL-INDIA MANUFACTURERS'
ORGANIZATION

Co-op. Ins. Bldg., Sir Pherozeshah Mehta Road, Bombay 1.

There are State and Regional Boards in New Delhi, Calcutta, Punjab, Saurashtra, Madras, Bangalore, Ernakulam, Bombay, Ahmedabad, Indore and Hyderabad and District and City Councils in important centres of industrial activity.

ALL-INDIA NON-FERROUS METAL INDUSTRIES
ASSOCIATION

Liberty Building, Marine Lines, Bombay 20.

ALL-INDIA PLASTIC BANGLES MANUFACTURERS' ASSOCIATION

'Shanti Nagar', Mukta Baug, Malad (West), Bombay 64 NB.

ALL-INDIA PLASTICS MANUFACTURERS' ASSOCIATION

Jehangir Bldg., Mahatma Gandhi Road, Bombay 1.

ALL-INDIA RADIO MERCHANTS'
ASSOCIATION

Sukh Sagar, Hughes Road, Bombay 7.

ALL-INDIA RAZOR BLADE MANUFACTURERS' ASSOCIATION

Industrial Assurance Bldg., Opp. Churchgate Station, Bombay 20.

ALL-INDIA SINDWORK MERCHANTS' ASSOCIATION

231, Dr. Dadabhoy Naoroji Road, Bombay 1.

ALL INDIA SMALL PAPER MILLS' ASSOCIATION 109, Shaikh Memon Street, 2nd Floor, Bombay 2 BR.

ALL-INDIA STAINLESS STEEL IMPORTERS'
ASSOCIATION

203, Himalaya House, Palton Road, Bombay 1.

ALL-INDIA STAINLESS STEEL INDUSTRIES
ASSOCIATION

Arun Chambers, Tardeo Main Road, Bombay 34.

ALL INDIA STARCH MANUFACTURERS ASSOCIATION

159, Colaba Road, Bombay 5.

ALL-INDIA WOOL TRADE FEDERATION Post Box No. 1051, Bombay.

ASSOCIATION OF INDIAN AUTOMOBILE MANUFACTURERS

Army & Navy Bldg., Third Floor, Mahatma Gandhi Road, Bombay 1.

President: A. H. Tobaccowala; Secretary: C. V. K. Murthy Rao.

ASSOCIATION OF INDIAN DROP FORGING & STAMPING INDUSTRIES

80, Dr. Annie Besant Road, Worli, Bombay 18.

ASSOCIATION OF MAN-MADE FIBRE INDUSTRY Resham Bhavan, 5th Floor, 78, Veer Nariman Road, Bombay 20.

ASSOCIATION OF MERCHANTS AND MANUFACTURERS OF TEXTILE STORES AND MACHINERY, INDIA

Bhogilal Hargovindas Bldg., 18/20, Rampart Row, Bombay 1.

AUDIT BUREAU OF CIRCULATIONS LTD.
Wakefield House, Ballard Estate, Bombay 1.

Chairman: L. S. Jayawardena; Dy. Chairman: T. S. Krishnan; Hony. Secretary: Harish C. Jain; Hony. Treasurer: A. M. Patel; Secy.: S. D. Kumar.

AUTOMOBILE DEALERS' ASSOCIATION OF MAHARASHTRA LTD.

C/o Bombay Chamber of Commerce & Industry, Ballard Estate, Bombay 1.

BASIC CHEMICALS, PHARMACEUTICALS & SOAPS EXPORT PROMOTION COUNCIL 7, Cooperage Road, Bombay-20.

BOMBAY ARMS DEALERS' ASSOCIATION 246, Abdul Rehman Street, Bombay 3.

BOMBAY BOOKSELLERS & PUBLISHERS ASSOCIATION

C/o Progressive Corpn. Davar's College, 51, Mahatma Gandhi Road, Fort, Bombay 1.

BOMBAY AERATED WATER MANUFACTURERS
ASSOCIATION

Queen's Chamber, 89, Queen's Road, Bombay 1 BR.

BOMBAY BULLION ASSOCIATION LIMITED 185, Sheikh Memon Street, Bombay 2.

BOMBAY CAMPHOR TABLETS
MANUFACTURERS' AND MERCHANTS'
ASSOCIATION

218, Samuel Street, Bombay 3.

BOMBAY CANVAS & TARAPAULINS MERCHANTS'
ASSOCIATION

245, Masjid Bunder Road, Bombay 3 BR.

BOMBAY COTTON MERCHANTS' & MUCCADUMS' ASSOCIATION LTD.

72-73, Cotton Exchange, Sewree, Bombay 15.

BOMBAY CUSTOM HOUSE CLEARING AGENTS' ASSOCIATION

Warden House, 2nd Floor, Sir P. M. Road, Bombay 1.

BOMBAY CUTLERY, TOYS, GLASS BEADS AND SUNDRY MERCHANTS' ASSOCIATION 106, Bhusari Mohalla, Bombay 3—BR.

BOMBAY DIAMOND MERCHANTS' ASSOCIATION

3, Dhanji Street, Bombay 3.

BOMBAY ELECTRO-PLATERS'
ASSOCIATION

139, Bhendi Bazar, Bombay 3.

BOMBAY EXCHANGE BANKS' ASSOCIATION C/o The Chartered Bank, 25, Mahatma Gandhi Road, Bombay 1.

BOMBAY FERROUS & NON-FERROUS MANUFACTURERS' ASSOCIATION

15, Bada Mandir Gaushala, 3rd Bhoiwada, Bombay 2 BR.

BOMBAY GENUINE PEARLS DEALERS'
ASSOCIATION

Bhagini Samaji Building, 226, Khetwadi Main Road, Bombay 4 BR.

BOMBAY GLASSWARE MERCHANTS' ASSOCIATION 91, Sheriff Devii Street, Bombay 3.

BOMBAY GOODS TRANSPORT ASSOCIATION 416, Katha Bazar, Bombay 9.

BOMBAY GRAIN DEALERS' ASSOCIATION 103, Keshavji Naik Road, Bombay 9.

BOMBAY HARDWARE MERCHANTS'
ASSOCIATION

Burhani Building, 57, Sarang Street, Bombay 3.

BOMBAY HESSIAN & GUNNY MERCHANTS' ASSOCIATION LTD.

395/97, Narsi Natha Street, Katha Bazar, Bombay 9.

BOMBAY HOTELS ASSOCIATION 243, Y. Meherally Road, Bombay 3.

BOMBAY INDUSTRIES ASSOCIATION Sahakar Bhavan, Kurla Industrial Estate, Agra Road, Ghatkopar, Bombay 86AS.

This is an organisation representing a cross-section of different industries—small, medium as well as large scale. It has 450 industries on its membership roll.

BOMBAY IRON MERCHANTS ASSOCIATION 501, Steel Centre, Sant Tukaram Road, Carnac Bunder, Bombay 9. BOMBAY KARIANA, COLOUR AND CHEMICAL MERCHANTS' ASSOCIATION 225-27, Samuel Street, Bombay 3.

> BOMBAY LOCAL OIL MILLERS' ASSOCIATION LTD. 363, Katha Bazar, Bombay 9.

BOMBAY MARBLE & TILE MERCHANTS'
ASSOCIATION

32, Apollo Street, Bombay 1.

BOMBAY MASTER PRINTERS ASSOCIATION 274, Tardeo Road, Bombay 7.

BOMBAY MERCURY TRADERS' ASSOCIATION LTD.

218, Samuel Street, Bombay 3.

BOMBAY METAL EXCHANGE LTD., Gogate Mansion, Kika Street, Bombay 2.

BOMBAY MOTOR MERCHANTS' ASSOCIATION LTD.

Sukh-Sagar, 3rd Floor, Sandhurst Bridge, Bombay 7.

BOMBAY MUDIBAZAR KARIANA MERCHANTS' ASSOCIATION 43, Kazi Sved Street, Bombay 3.

BOMBAY OIL MERCHANTS' ASSOCIATION C/o Muljee Jaitha & Company, Katha Bazar, Bombay 9.

BOMBAY OILSEEDS & OILS EXCHANGE LTD. Jenabai Building, Yusuf Meherally Road, Bombay-3.

BOMBAY OILSEED CRUSHERS'
ASSOCIATION

Anna Bhavan, 5th Floor, Plot No. 87C, Broach Street, Bombay 9.

BOMBAY PIECE-GOODS MERCHANTS'
MAHAJAN

Mulji Jetha Cloth Market Hall, 250, Sheikh Memon Street, Bombay 2.

BOMBAY PIPES & FITTINGS MERCHANTS'
ASSOCIATION

84. Nagdevi Street, Bombay 3.

BOMBAY PRESS-OWNERS' ASSOCIATION 196B, Gaiwadi, Girgaum, Bombay 4.

BOMBAY PRODUCTIVITY COUNCIL India House, Kemp's Corner, Bombay 26.

BOMBAY SANITARYWARE ASSOCIATION 70, Mohamedali Road, Bombay 3.

BOMBAY SHROFFS' ASSOCIATION LTD. 233A, Shroff Bazar, Bombay 2.

BOMBAY SMALL-SCALE INDUSTRIES ASSOCIATION

No. 32nd Carpenter Street, Bombay 4.

BOMBAY SPORTS TRADERS' AND MANUFACTURERS' ASSOCIATION

C/o K. L. Malhotra Bros., 5th Floor, Mohatta Market, Palton Road, Bombay 1.

BOMBAY STATE HOSIERY MANUFACTURERS ASSOCIATION

30, Old Hanuman Lane, Bombay 2.

BOMBAY STEVEDORES' ASSOCIATION LTD. Januabhoomi Chambers, Fort Street, Bombay.

BOMBAY SUGAR MERCHANTS' ASSOCIATION LTD.

104/114, Frere Road, opp. Victoria Dock, Bombay 9.

BOMBAY TARPAULIN MERCHANTS' ASSOCIATION 297, Narsi Natha Street, Bombay 9—BR.

BOMBAY TEA MERCHANTS' ASSOCIATION

222-A, Samuel Street, Mandvi, Bombay 3.

BOMBAY TEXTILE AND ENGINEERING
ASSOCIATION

Satar Bldg., Opp. Grant Road Railway Station (East), Bombay 7.

BOMBAY TIMBER MERCHANTS' ASSOCIATION LTD.

Victoria Road, Mustafa Bazar, Bombay 10.

BOMBAY TYPE FOUNDRY OWNERS'
ASSOCIATION

B-196, Gaiwadi, Girgaon, Bombay 4.

BOMBAY WATCH DEALERS' SYNDICATE 78, Abdul Rehman Street, Bombay 3.

BOMBAY WOOL MERCHANTS ASSOCIATION
C/o Indian Wool Trading Co.,
2nd Panirapole Lane, Bombay 4.

BOMBAY YARN MERCHANTS' ASSOCIATION & EXCHANGE LIMITED

Bombay Yarn House, 47/49, Nakhoda Street, Tambakanta, Bombay 3.

BOOK MANUFACTURERS' ASSOCIATION 1st floor, 23, Mirza Street, Bombay 3.

BUILDERS' ASSOCIATION OF INDIA United India Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Centres at Agra. Ahmedabad, Allahabad, Calcutta, Delhi, Gauhati, Hyderabad, Jaipur, Kanpur, Madras, Meerut, Poona & Ranchi.

President, R. G. Gandhi. Vice-President, R. N. Banerjee. Hon. Secretary, K. J. Sapre.

CEMENT MANUFACTURERS'
ASSOCIATION

Express Bldg., opp. Churchgate Rly. Station, Bombay 20.

CENTRAL ORGANISATION FOR OIL INDUSTRY & TRADE

Anna Bhavan, 5th Floor, Plot No. 87-C, Broach St., Bombay 9.

CHEMICAL AND ALKALI MERCHANTS' ASSOCIATION

Himalaya House, Palton Road, Bombay 1.

CHEMICAL PLANT & MACHINERY ASSOCIATION OF INDIA

C/o Bombay Chamber of Commerce & Industry Mackinnon Mackenzie Building, Ballard Estate, Bombay 1.

CHEMISTS' AND DRUGGISTS' ASSOCIATION Block 3, Devkaran Mansion, Princess Street, Bombay 2.

CINEMATOGRAPH EXHIBITORS' ASSOCIATION OF INDIA

Sandhurst Building, Sardar Patel Road, Bombay 4.

CLOTHING MANUFACTURERS' ASSOCIATION OF INDIA

India House, G. Deshmukh Marg, Bombay 26.

President: P. N. Amersey; Vice-President: Hamid
Ismail; Hon. Gen. Secy.: S. L. Shah.

COPPER & BRASSWARE MANUFACTURERS' & SELLERS' ASSOCIATION LTD.

64, Kansara Chawl, Room No. 80, 2nd Floor, Bombay 2.

COTTON TEXTILES EXPORT PROMOTION COUNCIL

Engineering Centre, 5th Floor, 9, Mathew Road, Bombay 4.

Chairman: Krishnaraj M. D. Thackersey; Secretary: N. S. Gopalakrishnan.

DECCAN SUGAR FACTORIES' ASSOCIATION Stadium House, Block No. 2, Veer Nariman Road, Bombay 20.

DYESTUFF MANUFACTURERS ASSOCIATION OF INDIA

C/o Sterling Dyes P. Ltd., 296, Samuel Street, Bombay 3.

EAST INDIA COTTON ASSOCIATION

EAST INDIA COTTON ASSOCIATION LIMITED

Cotton Exchange, Marwari Bazar, Bombay 2. ELECTRIC MERCHANTS' ASSOCIATION Vithal Sayana Bldg., No. 2, Lohar Chawl, Bombay 2.

ELECTRICAL CONTRACTORS' ASSOCIATION 63, New Stock Exchange Building, Apollo Street, Bombay 1.

EMPLOYERS' FEDERATION OF INDIA Army & Navy Building, 148, Mahatma Gandhi Road, Bombay 1.

President: Naval H. Tata; Secretary-General: T. S. Swaminathan; Secretary: N. M. Vakil.

ENGINEERING ASSOCIATION OF INDIA 87, Veer Nariman Road, Bombay 1.

FEDERATION OF ASSOCIATION OF SMALL INDUSTRIES OF INDIA

Fort Chambers, Tamarind Street, Bombay 1.

FEDERATION OF ASSOCIATIONS OF STEVEDORES

Janmabhoomi Chambers, Fort Street, Bombay 1.

FEDERATION OF AUTOMOBILE DEALERS
ASSOCIATIONS

534, Sardar Vallabhbhai Patel Road, Bombay 7.

FEDERATION OF BOMBAY RETAIL CLOTH DEALERS' ASSOCIATIONS 24/30, 1st Marine Street, Bombay 2.

FEDERATION OF ELECTRICITY UNDERTAKINGS OF INDIA

Killick House, Home Street, Bombay 1.

FEDERATION OF INDIAN CHAMBERS OF COMMERCE & INDUSTRY

Indian Mercantile Chambers, Opp. Churchgate Rly. Stn., Bombay 20.

FEDERATION OF MOTOR TRANSPORT ASSOCIATIONS

26, P. D'Mello Road, Wadi Bunder, Bombay 9.

FEDERATION OF PAPER TRADERS'
ASSOCIATIONS OF INDIA
401A, Commerce House, 140, Medows Street, Fort,
Bombay 1.

FEDERATION OF PUBLISHERS' AND BOOKSELLERS' ASSOCIATIONS IN INDIA C/o India Book House, Rusi Mansion, 29, Wodehouse Road, Bombay 1.

FERTILISER ASSOCIATION OF INDIA WESTERN REGIONAL OFFICE

305, Neelkanth, 98, Marine Drive, Bombay 2. Head Office: 85, Sundar Nagar, New Delhi 11.

FOREIGN EXCHANGE DEALERS'
ASSOCIATION OF INDIA

C/o Bank of India, 70/80, Mahatma Gandhi Road, Bombay-1.

GEM & JEWELLERY EXPORT PROMOTION COUNCIL

D-15, Commerce Centre, J. Dadajee Road, Bombay 34.

HINDUSTANI MERCHANTS' & COMMISSION AGENTS' ASSOCIATION LTD. 342, Kalbadevi Road, Bombay 2.

HOTEL & RESTAURANT ASSOCIATION (W. INDIA)
Taj Mahal Hotel, Apollo Bunder, Bombay 1.

IMDA INSTRUMENTS EXPORT ORGANISATION
A-32, Navyug Nivas, Lamington Road, Bombay 7.
INDIAN BANKS ASSOCIATION

Stadium House, Veer Nariman Road, Bombay 20.

INDIAN CHEMICAL MANUFACTURERS'
ASSOCIATION

Sir Vithaldas Chambers, 16, Apollo Street, Bombay 1.

INDIAN COTTON MILLS' FEDERATION Elphinstone Bldg., 10, Veer Nariman Road, Bombay 1.

Chairman, R. R. Ruia; Dy. Chairman, T. K. Sethi; V. Chairman, K. Sundaram, M.P.; Secy.-General, B. G. Kakatkar.

INDIAN COUNCIL OF FOREIGN TRADE Co-operative Insurance Bldg., 4th Floor, Sir Phirozshah Mehta Road, Bombay 1.

INDIAN ELECTRICAL MANUFACTURERS' ASSOCIATION

(Western Region) 54, Himgiri, Pedder Road, Bombay 26.

INDIAN FERRO ALLOY PRODUCERS ASSOCN., 14, Karve Road, Bombay 1.

INDIAN ENGINEERING ASSOCIATION C/o Bombay Chamber of Commerce & Industry, Post Box 473, Bombay 1.

INDIAN DRUG MANUFACTURERS ASSOCIATION Sujat Mansion, Andheri West, Bombay 58.

INDIAN INSURANCE COMPANIES'
ASSOCIATION

Co-operative Insurance Bldg., Sir Pherozshah Mehta Road, Bombay 1.

INDIAN LANGUAGES NEWSPAPERS'
ASSOCIATION

Janmabhoomi Bhavan, Ghogha Street, Fort, Bombay 1.

INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION

12. Rampart Row, Fort, Bombay.

President: Jayant H. Shah; Vice-President: G. R. Damodaran; Hon. Secretary: S. D. Sulakhe.

INDIAN MOTION PICTURE PRODUCERS'
ASSOCIATION

Sandhurst Building, Sardar Patel Road, Bombay 4.

INDIAN NATIONAL STEAMSHIP OWNERS' ASSOCIATION

Scindia House, Ballard Estate, Bombay 1.

INDIAN OIL AND PRODUCE EXPORTERS' ASSOCIATION

Anna Bhavan, 5th Floor, Plot No. 87-C, Broach Street, Bombay 9.

INDIAN PAINT & ALLIED INDUSTRIES
ASSOCIATION

Botawala Bldg., 8, Horniman Circle, Bombay 1.

INDIAN PHARMACEUTICAL ASSOCIATION Kalina, Santa Cruz (East), Bombay 29-AS.

INDIAN ROADS & TRANSPORT DEVELOPMENT
ASSOCIATION LIMITED
27. Bastion Road, Bombay 1.

Secretary : C. S. Nair.

INDIAN RUBBER INDUSTRIES ASSOCIATION
12. Rampart Row, Fort, Bombay 1.

INDIAN SALT MANUFACTURERS ASSOCIATION Tanna House Annexe, 11-A, Wodehouse Road, Bombay 1. (BR).

INDIAN SOCIETY OF ADVERTISERS LTD. 148, Mahatma Gandhi Road, Bombay 1.

INDIAN STOCK EXCHANGE LTD.

Yusuf Building, 43, Mahatma Gandhi Road, Bombay 1. INDIAN SUGAR MILLS ASSOCIATION

5, Convent Street, Bombay 1.
INDIAN TOBACCO MERCHANTS'
ASSOCIATION LTD.

184, Clive Road, Bombay 9.

INDIAN WOOLLEN MILLS' FEDERATION Churchgate Chambers, 7th Floor, 5, New Marine Lines, Bombay 20.

INSURANCE ASSOCIATION OF INDIA BOMBAY REGIONAL COUNCIL

Radio House, 6, Rampart Row, Bombay 1.

IRON, STEEL & HARDWARE MERCHANTS & MANUFACTURERS' CHAMBER OF INDIA 73, Sant Tukaram Road, Bombay 9.

LEATHER GOODS MANUFACTURERS' & DEALERS' ASSOCIATION
157, Princess Street, Bombay 2.

MAHARASHTRA MOTOR PARTS DEALERS ASSOCIATION

K. R. Vora Hall, Kala Bhavan, Bombay 4.

MARITIME UNION OF INDIA 204, Dr. Dadabhoy Naoroji Road, Bombay 1.

The Union is recognised by the principal shipping companies and is represented on the National Shipping Board, National Welfare Board for Seafarers, Merchant Navy Training Board and on the Councils of the International Transport Workers' Federation and the Officers' (Merchant Navy) Federation Ltd., London and also on the Joint Maritime Commission of the International Labour Organisation.

President: Smt. Maniben Kara, General Secretary, J. D. Randeri.

> MILL GIN STORE MERCHANTS' ASSOCIATION 88/92, Nagdevi Cross Lane, Bombay 3.

MILLOWNERS' ASSOCIATION, BOMBAY Elphinstone Building, Veer Nariman Road, Bombay 1.

C. M. Khatau (Chairman); S. R. Damania, M.P. (Deputy Chairman); R. L. N. Vijayanagar (Secretary).

NON-POWER MANUFACTURING ASSOCIATION 187, S. Devji Street, Bombay 3.

ORGANISATION OF PHARMACEUTICAL PRODUCERS OF INDIA

Cook's Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

PAPER TRADERS' ASSOCIATION 54, Sutar Chawl, Bombay 2.

PEPPER & GINGER MERCHANTS' ASSOCIATION LIMITED 332-34, Narsi Natha Street, Bombay 9.

PERFUMERY RAW MATERIALS
TRADE ASSOCIATION

Devkaran Mansion, 2nd Floor, 45/47, Princess Street, Bombay 2.

PHARMACEUTICAL AND ALLIED
MANUFACTURERS' AND DISTRIBUTORS'
ASSOCIATION, LTD.

C/o Bombay Chamber of Commerce and Industry, Mackinnon Mackenzie Building, Ballard Estate, Bombay 1.

PLASTICS AND LINOLEUMS EXPORT PROMOTION COUNCIL

Nyloe Road, Prabhadevi, Bombay 25.

PROPERTY OWNERS' ASSOCIATION Bansilal Mansion, 11, Bruce Street, Bombay 1.

RADIO ELECTRONIC & TELEVISION MFG. ASSOCIATION

C/o Lovelock & Lewis, Elphinstone Building, Vir Nariman Road, Bombay 1.

REFRIGERATION AND AIR CONDITIONING TRADES ASSOCIATION LIMITED

C/o Bombay Cycle & Motor Agency Ltd., 534, Sardar Vallabhbhai Patel Road, Bombay 7.

RETAIL GRAIN DEALERS' FEDERATION 'Shiv Mahal', 84-86, Dr. Maheshwari Road, Bombay 9.

SCIENTIFIC & SURGICAL INSTRUMENT MANUFACTURERS' & TRADERS' ASSOCIATION 2nd Floor, Devkaran Mansion, 43, Princess Street, Bombay 2.

SHUTTLE MANUFACTURERS ASSOCIATION
C/o Swastik Textile Trading Co. P. Ltd.,
Sir Vithaldas Chambers, 16, Apollo Street, Bombay 1.

SILK & ART SILK MILLS' ASSOCIATION LIMITED Resham Bhavan, 78, Veer Nariman Road, Bombay 20. SILK & RAYON TEXTILES EXPORT PROMOTION COUNCIL

Resham Bhavan, 78, Veer Nariman Road, Bombay 29.

SILK MERCHANTS' ASSOCIATION Dahanukar Building, Kalbadevi Road, Bombay 2.

SMALL SCALE COPPERWARE MANUFACTURERS' ASSOCIATION 37-39, Bhajipala Street, Bombay 3.

SOCIETY OF ADVERTISING PRACTITIONERS Ilaco House, Sir P. M. Road, Bombay 1.

SOLVENT EXTRACTORS' ASSOCIATION OF INDIA Tanna House Annexe, 1st Floor, 11-A, Wodehouse Road, Bombay 1.

SPECIALISED PUBLICATIONS ASSOCIATION 235, D. N. Road, Bombay 1.

STAINLESS STEEL MERCHANTS' ASSOCIATION 253, Harihar Niwas, Khetwadi 3rd Lane, Bombay 4.

STEEL FURNACE ASSOCIATION OF INDIA C/o Mukand Iron & Steel Works Ltd., Kurla, Bombay 70-AS.

> STOCK EXCHANGE Dalal Street, Bombay 1.

President: Dhirajlal Maganlal; Chairman: P. J. Jeejeebhoy; Vice-President: Laldas Jamnadas; Hon. Treasurer: Mathuradas Shamaldas; Secy.: A. J. Shah.

TEXTILE AUXILIARIES MANUFACTURERS
ASSOCIATION

16, Apollo Street, Bombay 1.

TEXTILE MACHINERY MANUFACTURERS'
ASSOCIATION

80, Dr. Annie Besant Road, 3rd Floor, Worli, Bombay 18.

TRACTOR EARTHMOVING AND CONSTRUCTION EQUIPMENT DISTRIBUTORS' ASSOCIATION LTD.

C/c The Bombay Chamber of Commerce & Industry, Post Box No. 473, Bombay 1.

TRADE & TECHNICAL PUBLICATIONS
ASSOCIATION

12, Fort Chambers, Hamam Street, Bombay 1.

TRAVEL AGENTS' ASSOCIATION OF INDIA LTD.

C/o Bombay Chamber of Commerce & Industry, Mackinnon Mackenzie Bldg., Ballard Road, Ballard Estate, Bombay 1.

UPCOUNTRY NEWSPAPER REPRESENTATIVES
ASSOCIATION

C/o Secretariat, National Herald, 232, Dr. D. Naoroji Road, Bombay 1.

It is an organisation of persons working in Bombay on behalf of newspapers including magazines and periodicals, published outside Bombay.

VEGETABLE OILS ASSOCIATION OF INDIA Anand Bhavan, 5th Floor, 87-C, Broach Street, Bombay 9.

WATCH TRADE FEDERATION Ghadiali Building, 88A-90, Nagdevi Cross Lane, Bombay 3 RB.

#### WESTERN GLASS MANUFACTURERS ASSOCIATION

C/o Mahalakshmi Glass Works P. Ltd., Haines Road, Jacob Circle, Bombay 11.

# WESTERN INDIA AUTOMOBILE ASSOCIATION

76, Veer Nariman Road, Bombay 20.

Branch Offices.—Abmedabad: The Cellar, Khanpur; Poona: 7, Moledina Road, Poona1; Nagpur: C/o Bombay Garage Pvt. Ltd., Palam Road; Jaipur: Rajendra Bhuvan, Subash Marg, 'C' Scheme.

# WESTERN INDIA PHOTOGRAPHIC & ALLIED TRADES ASSOCIATION LTD.

Mangrol Mansion, 6, Gunbow Street, Bombay 1.
WESTERN INDIA SHEET ROLLERS'
ASSOCIATION

32, Nicol Road, Ballard Estate, Bombay 1.
WESTERN INDIA SHIPPERS ASSOCIATION
C/o Indian Merchants Chamber, 76, Veer Nariman Road,
Bombay 20.

WOOL & WOOLLEN EXPORT PROMOTION
COUNCIL
5. New Marine Lines, Bombay 20.

#### CHAMBERS OF COMMERCE IN GREATER BOMBAY

# ALL INDIA EXPORTERS' CHAMBER

2nd Floor, Janmabhoomi Chambers, Fort Street, Bombay 1.

Activities:—To promote and protect trade and commerce, particularly the export trade of India and assist exporters in their pursuit of exploring and expanding their overseas commercial intercourse.

# BELGO-INDIAN CHAMBER OF COMMERCE AND INDUSTRY

2nd Floor, Taj Building, 210, D. Naoroji Road, Bombay 1. Hon. Secretary: V. S. Nadkarni.

# BOMBAY CHAMBER OF COMMERCE AND INDUSTRY

Mackinnon Mackenzie Bldg., Ballard Estate, Bombay 1.

President: V. G. Rajadhyaksha; (Stipendiary) VicePresident: J. B. Bowman, M.B.E.,; Dy. Secretary: B. P.
Gunaji.

EAST INDIA CHAMBER OF COMMERCE LIMITED Patwa Chawl, Sheikh Memon Street, Bombay 2.

HINDUSTAN CHAMBER OF COMMERCE 342, Kalbadevi Road, Bombay 2.

# INDIAN MERCHANTS' CHAMBER Lalji Naranji Memorial, Indian Merchants' Chamber Building, 76, Veer Nariman Road, Churchgate, Bombay 20.

President: S. P. Godrej; Vice-President: Harish Mahindra; Secretary: C. L. Gheevala.

INDO-AMERICAN CHAMBER OF COMMERCE 18, New Marine Lines, Bombay 20.

INDO-GERMAN CHAMBER OF COMMERCE Vulcan Insurance Bldg., Veer Nariman Road, Bombay 20.

The Chamber promotes and fosters trade and commerce of all description between the Union of India and the Federal Republic of Germany. It has also offices at Calcutta, Delhi, Madras and Liaison Office: Dusseldorf (W. Germany).

President: Dr. Ing. B. P. Godrej; Vice-President: H. D. Grabenhorst; Secretary-General: Dr. K. Pracht, New Delhi; Secretary: Dr. G. Krueger, Bombay.

# INTERNATIONAL SINDHI CHAMBER OF COMMERCE & INDUSTRIES

Sheva Niketan, Top Floor, Pinjari Street, Bombay 3.

ITALIAN CHAMBER OF COMMERCE "Vaswani Mansions", D. Vachha Road, Bombay 20.

# MAHARASHTRA CHAMBER OF COMMERCE 12, Rampart Row, Bombay 1.

Membership of the Chamber is open to all carrying on trade, commerce and industry in Maharashtra State irrespective of caste, creed or community.

Presient: Bharat G. Doshi; Vice-Presidents: M. L. Apte, J. G. Bodhe, V. V. Patil; Secretary: R. G. Mohadikar.

MEMON CHAMBER OF COMMERCE Patharia Palace, Mohamedali Road, Bombay 3.

> WESTERN INDIA CHAMBER OF COMMERCE, LTD.

232-234, Kalbadevi Road, Bombay 2.

President: Satyanarayan R. Baid; Secretary: Asharam R. Dube.

# BENEVOLENT INSTITUTIONS IN GREATER BOMBAY

ACWORTH LEPROSY HOSPITAL Wadala, Bombay 31.

ALL-INDIA ANIMAL WELFARE ASSOCIATION 149, Shroff Bazar, Bombay 2.

ARTYTOYS INDUSTRIAL SCHEME TRUST Sir Ratan Tata Welfare Centre, Sir Ratan Tata Road, Tardeo, Bombay-34.

BAI MOTLIBAI WADIA CHARITABLE FUNDS 22-D, Parsi Bazar Street, Bombay 1. (Endowments for scholarships.)

BALVIKAS KENDRA Tilak Vidyalaya Road, Vile Parle (East), Bombay 57.

BAPNU GHAR 12A, Annie Besant Road, Bombay 18.

BEGGARS' HOME FOR FEMALES Chembur, Bombay 71.

BENE-ISRAEL HOME FOR DESTITUTES AND ORPHANS

9A, Wylie Road, Bombay 11.

BHAGINI SAMAJ 225, N. Desai Road, Bombay 4.

BHARATIYA VANITA SAMAJ

Nair Mahal, 1st Floor, Tulsi Pipe Road, Bombay 16.

BILLAWAR ASSOCIATION
17, Raghunath Dadaji Street, Fort, Bombay 1.

BLIND MEN'S ASSOCIATION 177-79, Lamington Cross Road, Bombay 7.

Activities: Strives to provide higher education to the deserving blind; helps the blind to start small industries or lend money to them free of interest for advancement in their profession and vocations, thus making them self-supporting; helps the blind during the short periods of their unemployment, sickness or other calamities and provides them with medical aid. It has affiliated associations at Poona and Ahmedabad.

#### BOMBAY CHESHIRE HOME

Bethlehem House, Mahakali Caves Road, off Mathuradas Visanji Road (Kurla-Andheri Road), Andheri, Bombay 58. The Cheshire Homes are for the incurably sick and homeless.

BOMBAY CITY AMBULANCE CORPS 21, Marine Lines, Bombay 20.

Free First Aid and Ambulance Service Station — all days, all hours.

BOMBAY DEAF & DUMB SOCIETY 12, Rampart Row, Bombay 1.

BOMBAY INSTITUTION FOR DEAF AND MUTES Nesbit Road, Mazagon, Bombay 10.

BOMBAY LEGAL AID SOCIETY
Hamam House, Hamam Street, Bombay 1.

The object of the Society is to make justice more readily accessible to the poor.

BOMBAY MOTHERS AND CHILDREN WELFARE SOCIETY

No. 10, B.D.D. Chawl, De Lisle Road, Bombay 11.

BOMBAY PANJRAPOLE Bhuleshwar, Post Girgaon, Bombay 4.

BOMBAY RELIEF ASSOCIATION

Office: Cook's Bldg., 2nd Floor, Dr. Dadabhoy Naoroji

Road, Bombay 1; Relief Office: 115, Love Lane, Mazagon,

Bombay 10.

BOMBAY SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS Bombay 12.

BYRAMJEE JEEJEEBHOY PARSEE CHARITABLE INSTITUTION Opp. Charni Road Rly. Station, Bombay 4.

CHILDREN'S AID SOCIETY
83, Lady Hardinge Road, Mahim, Bombay 16.

DADAR BHAGINI SAMAJ

3rd Lane, Hindu Colony, Dadar, Bombay 14. Industrial Classes, welfare centre and family planning. DAUGHTERS OF MARY IMMACULATE Regina Pacis, Seth Motishah Lane, Victoria Gardens, Bombay 27 DD.

1. Residential Training Centre, Club & Employment Bureau for Houseworkers. 2. Home and School for destitute children. 3. Hostel for working girls and students. 4. Regina Pacis Free Dispensary for the poor.

THE FAMILY PLANNING ASSOCIATION OF INDIA 1, Metropolitan House, Dadabai Naoroji Road, Bombay 1.

The Association's activities: (1) carrying out educational work to spread information on family planning and to motivate people to adopt it; (2) providing clinical service; (3) training personnel including doctors and social workers; and (4) carrying out field research studies and clinical studies, and also providing encouragement to research work — sociological, demographic and medical.

The Headquarters is affiliated to the International Planned Parenthood Federation and maintains contact with family planning associations in many countries of the world.

President : Smt. Avabai B. Wadia.

# FELLOWSHIP OF THE PHYSICALLY HANDICAPPED

Haji Ali Park, Clerk Road, Mahalaxmi, Bombay 11.

FIRE BRIGADE

Headquarters, Byculla, Bombay 8 BC.

Fire Brigade Stations

Byculla Headquarters; Alexandra Docks; Gowalia Tank; Sewree; Fort; Colaba; Shivaji Park; Worli; Dadar; Memonwada; Mandvi; Andheri; Vikhroli; Chembur.

"GATE OF MERCY" SYNAGOGUE 254, Samuel Street, Bombay 3.

GOCULDAS TEJPAL CHARITIES 7, Bastion Road, Fort, Bombay 1.

HABONIM WORK ROOM 55, Forbes Street, Fort, Bombay 1.

Women and girls from all strata of society are admitted.

HIND KUSHT NIVARAN SANGH
Maharashtra State Council, Red Cross Office, 141, Mint
Road, Bombay 1.

INDIAN COUNCIL FOR MENTAL HYGIENE Cambatta Chambers, 42, Maharshi Karve Road, Bombay 20.

> INDIAN RED CROSS SOCIETY (Maharashtra State Branch) 141, Mint Road, Bombay 1.

INJUREDS' AID SOCIETY

21, Hatim Manzil, 149, Frere Road, Bombay 1.

Renders free medical and legal aid to persons injured in road accidents within the limits of Greater Bombay.

JAMSETJEE JEEJEEBHOY HOSPITAL NURSING ASSOCIATION

Maneckji Wadia Bldg., Mahatma Gandhi Road, Bombay 1.

LADY TATA MEMORIAL TRUST Bombay House, Bruce Street, Fort, Bombay 1. LEAGUE OF MERCY FOR DIOCESE OF BOMBAY 61, Clare Road, Byculla, Bombay 8.

MAHARASHTRA STATE COUNCIL FOR CHILD WELFARE

No. 10, B.D.D. Chawl, Delisle Road, Jacob Circle, Bombay 11.

## MAHARASHTRA STATE COUNCIL ON BLINDNESS

C/o Sir C. J. Ophthalmic Hospital, Bombay 8.
N. M. WADIA CHARITIES
22-D. Parsi Bazar Street, Fort, Bombay 1.

# NAGPADA NEIGHBOURHOOD HOUSE New Nagpada Road, Byculla, Bombay 8.

Activities.—Medical and Family Planning Clinics, Children's Welfare Centre, Nursery, Dramas, Meetings, Cinemas, Games, Classes, Clubs, Athletics, Night Classes, Lectures, Crafts Sales Centre for Village & Mission Industries, Employment Bureau, Working Men's and Women's Hostels, Libraries for adults and children, Bombay School of Social Welfare, Family Welfare Agency, Women's activities, Creche, Child Guidance Clinic.

# NATIONAL ASSOCIATION FOR THE BLIND 51, Mahatma Gandhi Road, Bombay 1.

AIMS AND OBJECTS.—To work in the whole of India for the prevention and cure of blindness and for the welfare of the blind.

President: Mrs. Queenie H. C. Captain; Honorary Secretary-General: Capt. H. J. M. Desai; Executive Officer: Suresh C. Ahuja.

# PARSI PUNCHAYAT FUNDS AND PROPERTIES 209, Dr. Dadabhov Naoroji Road, Fort, Bombay.

POPULAR AMBULANCE ASSOCIATION Talmakiwadi, Tardeo, Bombay 7.

RASHTRA DHARMA SOCIETY
Ganga Nivas, 234, Walkeshwar, Bombay 6.

#### THE SALVATION ARMY

The areas served by the Salvation Army have been divided for administrative purposes into 6 territories, (2 of which are outside India) each under a Territorial Commander and one smaller command.

# NORTH EASTERN INDIA TERRITORY:

Territorial Headquarters: The Salvation Army, 37, Dharamtalla Street, Calcutta.

Territorial Commander: Colonel Fazal Masih.

General Secretary: Major Gordon Bevan.

The work of The Salvation Army in this territory is in Punjab, Uttar Pradesh, Orissa, Bengal, Delhi, Assam, Bihar, Manipur and Cachar.

Evangelical work is carried out extensively in these States and Union territories. Three hundred and forty officers labour at 831 corps and 1,451 societies and outposts.

Social work comprises Social Service Centre, Girls' Home, Students' Hostel, Men's Home, Free Meal Service, also Motherless Babies Home, Young Women's Hostel, Red Shield Guest House, Mary Scott Home and School for the Blind and orphanages for boys and girls.

Medical work: Mac Robert Hospital in Punjab, Poor

Peoples' Clinic at Calcutta.

 $Educational\ Work:$  A High School in Punjab and numerous village schools.

#### MADRAS & ANDHRA TERRITORY:

Territorial Headquarters: The Salvation Army, 1C, Ritherdon Road, P.O. 453, Vepery, Madras.

Territorial Commander: Lt.-Commissioner S. Gnana-

General Secretary: Brigadier James Kennedy.

The Territory covers part of Tamil Nadu, Andhra Pradesh and Mysore States and 381 officers work in 170 corps and 176 outposts and societies with a High School and 64 day schools.

Social Work: Mainly comprised of an Agricultural Colony at Guntur district and Women's & Children's Home in Madras.

Medical Work: A Hospital for Leprosy Patients at Bapatla, and a General Hospital at Nidubrolu in Andhra Pradesh.

#### SOUTHERN INDIA TERRITORY:

Territorial Headquarters: The Salvation Army, Kowdiyar, Trivandrum 3.

Territorial Commander: Colonel Harry Williams.

Chief Secretary: Lt.-Colonel Y. S. Chelliah.

The main work of the territory is evangelical and it comprises the whole of the Malyalam speaking State of Kerala and the Southern district of the Tamil speaking State of Tamil Nadu. The work is carried on by 730 officers and 691 outposts and societies with two High Schools and 25 village schools.

Medical Work: A Hospital for Leprosy patients at Puthencruz near Ernakulam and a large General Hospital in Nagercoil, Tamil Nadu.

# WESTERN INDIA TERRITORY:

Territorial Headquarters: The Salvation Army, Morland Road, Byculla, Bombay 8 BC.

Territorial Commander: Commissioner Joseph Dahya. The territory covers extensive areas in Maharashtra and Gujarat States and 464 officers work at 242 corps and 527 outposts, covering evangelical, social and medical and educational work.

Social Work: Social Service centre with Waste Paper, Free Meal distribution and Relief depot in Bombay. Women's & Children's Home in North Bombay. Agricultural colony in Gujarat and Young Women's Hostel in Bombay and Poona. Boarding schools for Boys and Girls.

Medical Work: Two general hospitals with dispensaries and Public Health work; also a Red Shield Guest House, in Bombay.

Educational Work: One High School in Maharashtra and 68 village schools in Gujarat and Maharashtra.

# SEVA SADAN SOCIETY Gamdevi, Bombay 7.

# SHRADDHANAND MAHILASHRAM

(Conducted by Hindu Women's Rescue Home Society.) King's Circle, Matunga, Bombay 19.

# SHREE MANAV SEVA SANGH

Plot No. 255/257, Sion Road, Sion (West), Bombay-22.
(A foundling home for infants and orphans.)

# SHRI GIRDHARLAL DAMODAR DAFTARY EDUCATION TRUST

Derasar Lane, Ghatkopar, Bombay 77.

SHRI JAIN MAHILA SAMAJ Mangrol Mansion, Bora Bazar Street, Bombay 1. SHRI MAHAVIRA JAINA VIDYALAYA Gowalia Tank Road, Bombay 26.

SIR DORABJI TATA TRUST Bombay House, Bruce Street, Bombay 1.

SIR JAMSETJEE JEJEEBHOY PARSEE BENEVOLENT INSTITUTION

209, Dr. Dadabhai Naoroji Road, Fort, Bombay.

SIR RATAN TATA CHARITIES

Bombay House, Bruce Street, Fort, Bombay 1.

SOCIETY FOR THE CARE, TREATMENT AND TRAINING OF CHILDREN IN NEED OF SPECIAL CARE

Sewri Hill, Sewri Road, Bombay 15.

SOCIETY FOR THE EDUCATION OF THE CRIPPLED

Agripada Mun. School Bldg., Motlibai Street, Bombay 11.

SOCIETY FOR THE PROTECTION OF CHILDREN IN WESTERN INDIA

The Byramjee Jeejeebhoy Home for Children, Matunga, Bombay 19.

SOCIETY FOR THE REHABILITATION OF CRIPPLED CHILDREN

Haji Ali Park, Clerk Road, Mahalakshmi, Bombay 11.

ST. FRANCIS D'ASSISI HIGH SCHOOL & ORPHANAGE

Mount Poinsur, P.O. Borivli, Bombay 92.

ST. JOHN AMBULANCE ASSOCIATION 141, Mint Road, Bombay 1. ST. JOHN AMBULANCE BRIGADE (INDIA)
141, Mint Road, Bombay 1.

SWASTIK LEAGUE

Seth Varjivandas Motilal Swastik Mandir, Vithalbhai Patel Road, Bombay 4.

TAHERI SCHOLARSHIP SOCIETY Mohamedi Baug, 21, Sarang Street, Bombay 3.

VANITA VISHRAM

Sardar Vallabhbhai Patel Road, Bombay 4.

The institution aims at ameliorating the condition of women in the States of Maharashtra and Gujarat and also elevating their social status.

VICENTA MARIA SOCIAL SERVICE SOCIETY Regina Pacis, Seth Motishah Lane, Victoria Gardens, Bombay 27-DD.

Activities:—1. Residential Training Centre, Club and Employment Bureau for Houseworkers. 2. Home and School for destitute children. 3. Hostel for working girls and students. 4. Regina Pacis Free Dispensary for the poor.

WORKSHOP FOR THE BLIND Dr. Annie Besant Road, Worli, Bombay 25,

To provide work and sub-contract experience, to provide training in light engineering jobs, to impart training in skilled and semi-skilled jobs and to assist the trained blind to get open competitive employment.

Chairman: Homi J. H. Taleyarkhan; Vice-Chairman: Vijay M. Merchant; Hon. Secretaries: Prabodh Vaidya, M. H. Mirchandani, Lt. G. L. Nardekar, Capt. H. J. M. Dasai

# CULTURAL, POLITICAL, PROFESSIONAL, SCIENTIFIC AND SOCIAL INSTITUTIONS IN GREATER BOMBAY

AERONAUTICAL SOCIETY OF INDIA BOMBAY BRANCH:

Works Maintenance Division, Air-India, Santa Cruz, Bombay 29-AS.

AKHIL BHARATIYA C.K.P. HITAWARDHAK SANSTHA

C.K.P. Dnyatigraha, Ram Maruti Road, Dadar, Bombay 28.

AIL BOMBAY CONSUMERS' CO-OPERATIVE SOCIETIES FEDERATION LTD.
Jehangir Bldg., M. Gandhi Road, Bombay 1.

ALL-INDIA ANGLO-INDIAN ASSOCIATION Brabourne Stadium, Vir Nariman Road, Bombay 20.

ALL-INDIA FOOTBALL FEDERATION 92, Dr. Dadabhoy Naoroji Road, Bombay 1 BR.

ALL-INDIA HANDLOOM FABRICS MARKETING CO-OP. SOCIETY LTD.

Bharat Bhuvan, P. D'Mello Road, Bombay 1.

ALL-INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT 11, Horniman Circle, Fort, Bombay 1.

THE ALL-INDIA STATE CO-OPERATIVE BANKS'

FEDERATION LTD.

C/o The Maharashtra State Co-operative Bank Ltd., 9, Bakehouse Lane, Fort, Bombay 1. ANTHROPOLOGICAL SOCIETY OF BOMBAY C/o K. R. Kama Oriental Library, 136, Apollo Street, Bombay 1.

ANTI-CORRUPTION SOCIETY
23, Bell Bldg., 2nd Floor, Sir P. M. Road, Bombay 1.

AQUARIST SOCIETY OF INDIA
Sales Service Centre: Fish Fantasy, New Citizen Bank
Bldg., Near Palton Road, Bombay 1.

ARUNODAYA KALA NIKETAN 34/1201, Tilak Nagar, Chembur, Bombay 71.

Aims and Objects: Free tuition is given in classical and traditional dance and music for deserving students irrespective of caste and creed.

ARYA SAMAJ 96-98, Bora Bazar Street, Fort, Bombay 1.

ASIATIC SOCIETY OF BOMBAY Town Hall, Bombay 1.

ASSOCIATION FOR MORAL AND SOCIAL HYGIENE Barrack No. 4, Dinshaw Wachha Road, Bombay-20.

ASSOCIATION OF THE FRIENDS OF THE MENTALLY ILL

265/266, Sahakar Nagar, M. H. Board Bldg., No. 9, Chembur, Bombay 71. ASSOCIATIONS OF PHYSICIANS OF INDIA Laud Mansion, 3rd Floor, 21, New Queen's Road, Bombay 4.

#### BALKAN-JI-BARI

(THE CHILD WELFARE ASSOCIATION OF INDIA) and its Youth Section AKHIL HIND YUVAK SANGH (THE ALL-INDIA YOUTH ASSOCIATION). "Gulistan." Khar. Bombay 52 AS.

BHARAT SCOUTS & GUIDES Scout-Guide Bhavan, Marine Lines, Bombay 20.

BHARAT SEVAK SAMAJ
Narandas Building, Sprott Road, Ballard Estate, Fort,
Bombay.

BHARATIYA DEPRESSED CLASSES LEAGUE 112, Medows Street, Bombay 1.

BHARATIYA MUSIC AND ARTS SOCIETY 11/138, Poornima, Wadala, Bombay 31.

BOMBAY ADULT EDUCATION ASSOCIATION 136, Apollo Street, Bombay J.

BOMBAY ADVOCATES' ASSOCIATION Small Causes Court, Carnac Road, Bombay 1.

BOMBAY ANDHRA MAHASABHA (REGD.) Lakhamsi Nappoo Road, Hindu Colony, Dadar, Bombay 14.

> BOMBAY ART SOCIETY Jehangir Art Gallery, Bombay 1.

BOMBAY ASTROLOGICAL SOCIETY C/o Janmabhoomi Panchang Karyalaya, 22/26, Ghoga Street, Fort, Bombay 1.

BOMBAY CHARTERED ACCOUNTANTS SOCIETY 60, Forbes Street, Fort, Bombay 1.

BOMBAY CONTRACT BRIDGE ASSOCIATION
Brabourne Stadium (North Stand), Veer Nariman Road,
Bombay 20.

THE BOMBAY CO-OPERATIVE HOUSING FEDERATION LTD.

19, Bell Building, Sir P. M. Road, Fort, Bombay 1.

BOMBAY HOMOEOPATHIC ASSOCIATION 311, Tardeo Road, Bombay 7.

BOMBAY INCORPORATED LAW SOCIETY High Court, New Bldg., Bombay 1.

BOMBAY KANNADA SANGHA 2, Venkatesh Nivas, Bhau Daji Road, Matunga, Bombay 19.

BOMBAY KERALEEYA SAMAJ
Plot 16A, "Kerala Bhavanam", K. A. Subramanian
Road, Matunga, Bombay 19.

BOMBAY LABOUR INSTITUTE
(Government of Maharashtra)
Dadabhoy Chamarbaugwala Road, Parel, Bombay 12.

Director: Dr. B. S. Bhir.

Recognised by the Bombay University as a post-graduate institute of specialised studies leading to 2-year University Diploma in Labour Welfare (D.L.W.). The course is open

to Degree holders in B.A., B.Sc., LL.B., or B.Com. of Bombay University or any other recognised University.

Trains Government Labour Officers, in the short inservice training course of six months' duration; and the successful candidates are awarded the Labour Officers' Certificate (L.O.C.) of the State Government.

The Institute has started a full time one-year post Intermediate (relaxable to S.S.C. level) Diploma Course in Trade Unionism and Industrial Relation's on behalf of the Maharashtra Government with a view to equipping floor-level leaders and others concerned with the welfare of workers with adequate information and knowledge on scientific Trade Unionism, to promote better industrial relations and to strive for unity in the Trade Union movement. The Government of Maharashtra has started a scheme of granting stipends to full-time trade unionists to enable them to undergo the training.

The Institute operates the State Workers' Education Scheme on behalf of the Government to train and discipline the mind of the workers, to enable them to be good and efficient workers and to promote better industrial relations. The class is open to all factory workers and each session lasts for 3½ months.

On behalf of the Planning Commission the Institute conducts from time to time case-studies of Labour-Management Relations in different units.

BOMBAY MANAGEMENT ASSOCIATION

Army and Navy Bldg., 3rd Floor, Mahatma Gandhi Road,

Bombay 1.

Aims: To promote mutual exchange of knowledge, experience and ideas on the principles and practices of Management among its members; to co-operate with educational institutions in developing schemes of instruction in Management principles and practice; to establish a Management Library in the Bombay area.

BOMBAY MEDICAL UNION Blavatsky Lodge, French Bridge, Chowpatty, Bombay 7.

BOMBAY NATURAL HISTORY SOCIETY Hornbill House, Opp. Lion Gate, Apollo Street, Bombay 1.

Devoted entirely to advancement of the study of natural history of the Oriental Region.

BOMBAY PARSEE ASSOCIATION

C/o Patel Charity Fund, Yusuf Building 1st Floor, Flora Fountain, Fort, Bombay 1.

BOMBAY SHORTHAND WRITERS' ASSOCIATION

Regd. Office: No. 1, Krishna Nivas, Station Road, Matunga, Bombay 19; Branch Office: 3/3 Kailas Kripa, Scheme 6, Road 1, Sion (East), Bombay 2.

BOMBAY SUBURBAN VILLAGE INDUSTRIES
ASSOCIATION

286, D. N. Road, Bombay 1.

BOMBAY TAMIL SANGAM Sion Road, Bombay 22.

BOMBAY TENANTS' ASSOCIATION 17, Benham Hall Lane, Bombay 4.

BOMBAY TEXTILE RESEARCH ASSOCIATION Bombay-Agra Road, Ghatkopar, Bombay 77. BOMBAY UNION OF JOURNALISTS

Prospect Chambers Annexe, 2nd Floor, Dadabhai Naoroji Road, Bombay 1.

Chairman: V. T. Deshpande: Secretary: Madhu Shetye.

BOMBAY VIGILANCE ASSOCIATION 124, Dadasaheb Phalke Road, Bombay 14.

The objects of the Association are (1) to secure recognition of the principle that the moral law is the same for both men and women; (2) to suppress and prevent the traffic in women and girls and the outrage, corruption, abduction and prostitution of persons under eighteen; (3) to do rescue and vigilance work in general; (4) to see that the provisions of the Indian Penal Code and of the Suppression of Immoral Traffic in Women and Children Act of 1956 are efficiently carried out; (5) to prevent the publication and sale of indecent and obscene pictures, books and papers, and of objectionable advertisements, cinema films and theatrical performances, and (6) to carry on active propaganda work for the ultimate and complete abolition of brothels. It maintains a shelter for forsaken and destitute women & children of all communities.

BOMBAY ZIONIST ASSOCIATION (Central Organisation in India) 63-67, Medows Street, Fort, Bombay 1.

BRAHMAN SAHAYYAK SANGH Shivaji Park Road No. 3, Bombay 28,

CERCLE LITTERAIRE BIBLIOTHEQUE DINSHAW PETIT—1886

60, Forbes Street, Bombay 1.

Object: To promote the study of French language, literature and civilization, Library and Reading Room.

CHILDREN'S FILM SOCIETY (INDIA)
Hingorani House, Worli, Bombay 18.

CITIZEN'S NATURE CURE SOCIETY C/o Dr. J. M. Jussawalla, 140, Cumballa Hill, Bombay 26.

COMMUNIST PARTY OF INDIA

Bombay Council: Dalvi Bldg., Parel, Bombay 12.

COUNCIL OF INDUSTRIAL SAFETY Elphinstone Bldg., Veer Nariman Road, Bombay 1.

CRAFTS COUNCIL OF INDIA

Theosophy Hall, 40, New Marine Lines, Bombay 20.

Is a non-official organisation for the promotion of the cultural and creative aspects of Crafts in India.

DEMOGRAPHIC TRAINING & RESEARCH CENTRE Govandi, Bombay 71.

It is intended to serve the training and research needs in the field of demography of not only India but also other Asian countries.

DEPRESSED CLASSES MISSION SOCIETY OF INDIA 112, Medows Street, Fort, Bombay 1.

DIABETIC ASSOCIATION OF INDIA Maneckji Wadia Bldg., 1st Floor, 127, Mahatma Gandhi Road, Bombay 1.

ENGINEERING ASSOCIATION OF INDIA
Western Region
87, Veer Nariman Road, Bombay 1.

EX-SERVICES ASSOCIATION, INDIA BOMBAY BRANCH

Cook's Building (2nd floor), Dr. Dadabhoy Nowroji Road, Bombay 1.

FEDERATION OF BOMBAY MOTOR TRANSPORT OPERATORS LTD.

26, Frere Road, Wadi Bunder, Bombay 9.

FEDERATION OF CUSTOM HOUSE AGENTS'
ASSOCIATIONS IN INDIA

Warden House, Sir P. M. Road, Bombay 1.

FILM FEDERATION OF INDIA 91, Walkeshwar Road, Bombay 6.

FORUM OF FREE ENTERPRISE
"Sohrab House", 235, Dr. Dadabhai Naoroji Road,
Bombay 1.

FRIENDS OF THE TREES 27, Prospect Chambers Annexe, Dr. D. N. Road, Bombay 1.

GUJARAT RESEARCH SOCIETY Samsodhana Sadan, South Avenue, Khar, Bombay 52.

> HAFFKINE INSTITUTE Parel, Bombay 12.

Its research activities are oriented towards prevention and relief of human suffering, specially in the field of communicable diseases. It also produces vaccines, antivenin, antitoxins, blood fractions, etc. It undertakes special diagnostic services and testing of drugs. Scientists may study here for Master or Doctorate degrees or could be trained in special fields.

Director : Dr. N. K. Dutta.

HIND MAZDOOR SABHA (National Headquarters)

Nagindas Chambers, 167, P. D'Mello Road, Bombay I.
INDIAN ACADEMY OF PRINTING AND GRAPHIC
ARTS

C/III/2, Tata Housing Centre, Andheri West, Bombay 58. Secretary-General: R. Krishnamurti.

INDIAN ASSOCIATION OF INDUSTRIAL EDITORS

Office: Army & Navy Building (3rd Floor), Mahatma Gandhi Road, Fort, Bombay 1.

President: Mrs. Jane Swamy (Voltas); Vice-President: Mrs. Roshan Vajifdar (Burmah-Shell).

INDIAN CANCER SOCIETY

Tata Memorial Hospital, Parel, Bombay 12.

Scientific investigation of the cause, prevention and control of Cancer, public education on Cancer and education of the medical profession in latest methods of detection, diagnosis and treatment of Cancer; combating quackery; sponsoring of research — both fundamental and clinical on the diagnosis, treatment and cure of Cancer; establishment of free detection centres, in various centres throughout India, establishing international cooperation in research, encouraging visiting professorships, awarding scholarships and fellowships in Cytology, Chemotherapy and Rehabilitation; giving relief and rehabilitation to indigent Cancer patients; donating apparatus to hospitals and research institutions; Organising of All India Cancer Conferences, establishing population—based Cancer Registries in different parts of India, Cancer Exhibitions, etc.

Honorary Founder-Secretary & Managing Trustee: D. J. Jussawalla, M.S., F.R.C.S., F.A.C.S.

INDIAN CHEMICAL SOCIETY

(Bombay Branch)
Institute of Science, Mayo Road, Bombay 1.

INDIAN COUNCIL FOR CULTURAL RELATIONS
Padam G. Deshmukh Marg, Bombay 26.

INDIAN COUNCIL OF MANAGEMENT EXECUTIVES
P. Box 4586, Bombay 8.

Aims:—To promote and develop the Science of Management in Industry. To conduct short-term training courses in Management. To compile a national Directory for Management Executives. To conduct Management Executive Training College.

INDIAN COUNCIL OF SOCIAL WELFARE

Central Office: 175, Dadabhoy Naoroji Road, Bombay I.

Object: Promotion of social welfare in India and a
National Committee of the International Council on
Social Work.

President: Mrs. Mary Clubwalla Jadhav; Executive Secy.: S. D. Gokhale.

INDIAN DOCUMENTARY PRODUCERS' ASSOCIATION

National House, Tulloch Road, Bombay 1.

INDIAN MEDICAL ASSOCIATION
(Bombay Branch)

Shri Nivas, Sardar Vallabhbhai Patel Road, Bombay 4.

INDIAN RAILWAY PASSENGERS CONFERENCE ASSOCIATION

23, Bell Building, Sir Phirozshah Mehta Road, Bombay I. Assistance to railway passengers in their dealings with the Railways with regard to their obligations to each other; restoration of run-away boys to their parents; elimination of crimes on railways against the person and property of railway passengers; free legal help to railway passengers, etc.

INDIAN RUBBER MANUFACTURERS' RESEARCH ASSOCIATION

Rahimtoola House, 7, Homji Street, Fort, Bembay 1.

INDIAN SOCIETY OF AGRICULTURAL ECONOMICS 46-48, Esplanade Mansions, Mahatma Gandhi Road, Fort, Bombay.

INDIAN SOCIETY OF RAYON TECHNOLOGISTS 144, Dharavi Road, Bombay 17.

INDO-AMERICAN SOCIETY Kitab Mahal, 5, Raveline Street, Bombay 1.

INDO-ARAB SOCIETY 12, Nagin Mahal, Veer Nariman Road, Bombay 20.

INDO-GERMAN CULTURAL SOCIETY 16, Nariman Road, Bombay 1.

INDO-JAPANESE ASSOCIATION 12, Rampart Row, Bombay 1.

INDO-SOVIET CULTURAL SOCIETY NATIONAL COUNCIL

Syndicate Bank Building, 4th Floor, Phirozshah Mehta Road, Fort, Bombay 1. INSTITUTE FOR RESEARCH IN REPRODUCTION
Opp. K.E.M. Hospital, Parel, Bombay 12.

Objects: Search for the ideal contraceptives — cheap, simple, harmless, reliable and acceptable — by clinically testing and evaluating the many new ones being developed.

INSTITUTE FOR INTER-RELIGIOUS UNDERSTANDING

Aquinas Hall, Mount Mary, Bombay 50.

INSTITUTE OF COSTS & WORKS ACCOUNTANTS OF INDIA

Kitab Mahal, Bastion Road, Bombay 1.

INSTITUTE OF INDUSTRIAL ENGINEERS NITI Campus, Vihar Lake Road, Bombay 76.

INSTITUTE OF INDUSTRIAL ECONOMICS Bombay Mutual Chambers, Hamam Street, Bombay 1.

INSTITUTE OF SOCIAL SERVICE Nirmala Niketan, 38, New Marine Lines, Bombay 20.

INSTITUTION OF ELECTRICAL ENGINEERS 1, Forbes Street, Fort, Bombay 1.

INSTITUTION OF ENGINEERS (INDIA)
Ilaco House, Sir Pherozeshah Mehta Road, Bombay 1.

INTERNATIONAL COUNCIL ON SOCIAL WELFARE
Regional Office for Asia and Western Pacific Region.
175, Dadabhai Naoroji Road, Bombay 1.

To assist the Social Welfare Development work in 25 countries (15 National Committees and 6 Ad-hoc Committees). It also organises Regional Meetings, exchange of persons, granting of fellowships and has a Division on Documentation and International Research.

IRAN LEAGUE Navsari Building, D. Naoroji Road, Bombay 1.

ISMAILIA ASSOCIATION FOR INDIA Karimabad, Imamwada Road, Bombay 9.

The object is uplifting and elevating the poor without distinction of caste or creed.

JAMSETJEE NESSERWANJEE PETIT INSTITUTE 312. Dr. Dadabhoy Naoroji Road, Bombay 1.

KANARA SARASWAT ASSOCIATION
13, 1-2, Association Building, Talmakiwadi, Tardeo Road,
Bombay 7 W.B.

KERALEEYA MAHILA SAMAJ Cadell Road, Shivaji Park, Bombay 16.

LOKMANYA SEVA SANGH

Tilak Mandir, Vile Parle (East), Bombay No. 57.

MAHARASHTRA BOARD OF AYURVEDIC AND UNANI SYSTEMS OF MEDICINE

Esplanade Mansions, 144, Mahatma Gandhi Road, Bombay 1.

MAHARASHTRA CO-OPERATIVE HOUSING FINANCE SOCIETY LIMITED

Raja Bahadur Building, 1st Floor, Flat No. 4, 20, Hamam Street, Fort, Bombay 1. MAHARASHTRA MEDICAL COUNCIL Swadeshi Mills Estate, Tata Road, New Queen's Road, Bombay 4.

MAHARASHTRA NURSING COUNCIL Gresham Assurance Bldg., Sir P. M. Road, Bombay 1.

MAHARASHTRA STATE ANGLING ASSOCIATION Club House, Powai Lake, Bombay 70.

MAHARASHTRA STATE ANTI-TUBERCULOSIS ASSOCIATION

Red Cross Building, Mint Road, Fort, Bombay 1.

MAHARASHTRA STATE BADMINTON ASSOCIATION

C/o Secretariat of Bombay Sporting Assens., Brabourne Stadium (North Stand), Bombay 20.

MAHARASHTRA STATE BASKETBALL ASSOCIATION

4/24, Brahmanwada Road, Bombay 19.

MAHARASHTRA STATE BILLIARDS ASSOCIATION C/o Islam Gymkhana, Kennedy Sea Face, Bombay 2.

MAHARASHTRA STATE CARROM ASSOCIATION Nagpada Neighbourhood House, New Nagpada, Nagpada Road, Bombay 8.

MAHARASHTRA STATE DENTAL COUNCIL Swadeshi Mills Estate, Tata Road, Bombay 4.

MAHARASHTRA STATE KHADI & VILLAGE INDUSTRIES BOARD

Bhatia Balrakshak Vidyalaya, 19/21, Manohardas Street, Fort, Bombay.

MAHARASHTRA STATE PHARMACY COUNCIL 5, Military Square Lane, Medows Street, Bombay 1.

MAHARASHTRA STATE TENNIS ASSOCIATION C/o Secretariat of Bombay Sporting Assens., Brabourne Stadium (North Stand), Churchgate, Bombay 20.

MAHARASHTRA STATE WOMEN'S COUNCIL Town Hall, Bombay 1.

Branches: Poona Women's Council, Poona, Samata Darshan Association, Aurangabad, Mahila Mandal, Matheran.

> MAHILA KALA NIKETAN Gamdevi, Bombay 7.

This institution imparts industrial education to all women irrespective of caste or creed.

MARATHA MANDIR LTD. Dr. Anandrao Nair Road, Bombay 8.

MARATHI SANSHODHAN MANDAL Mumbai Marathi Granthasangrahalaya, 172, Naigaum Cross Road, Dadar, Bombay 14.

MECHANICAL ENGINEERS' ASSOCIATION
(INDIA)

Janmabhoomi Chambers, 29, Fort Street, Bombay 1.

MIDDLE CLASS PEOPLE'S CONVENTION 12, Rampart Row, Bombay 1.

> MOGAVEERA YUVAK SANGHA 46, Vir Nariman Road, Bombay 1.

MUMBAI MARATHI SAHITYA SANGH (Sangha Mandir, Kelewadi, Girgaum, Bombay 4).

MYSORE ASSOCIATION

393, Bhau Daji Road, Matunga, Bombay 19.

N. C. CORPORATION PRIVATE LTD.

Stadium House, 3rd Floor, Vir Nariman Road, Bombay 20.

To spread 'God-Guided Economics', in industry, trade and administration particularly.

NATIONAL ASSOCIATION OF PURCHASING EXECUTIVES

Cecil Court, 5th floor, Lansdowne Road, Apollo Bunder, Bombay 1.

> NATIONAL INDIAN ASSOCIATION The Cliff, Ridge Road, Bombay 6.

The advancement of education of women in Bombay colleges by award of scholarships; the promotion of friendly intercourse by social gathering and lectures.

NATIONAL CENTRE FOR THE PERFORMING ARTS

Bombay House, 4th Floor, Bruce Street, Fort, Bombay I.

Chairman of the Council: J. R. D. Tata; Trustee-inCharge & Member of Council: J. J. Bhabha; Executive
Director: Dr. V. K. Narayana Menon.

NATIONAL INSTITUTE OF LABOUR MANAGEMENT

M. G. Textile Technical School Premises, Parel, Bombay 12.

THE NEUROLOGICAL SOCIETY OF INDIA 534, Sandhurst Bridge, Bombay 7.

ORIENTAL INSTITUTE OF INDIAN LANGUAGES 32, Khorshed Building, Sir P. M. Road, Bombay 1.

> PASSENGERS' AND TRAFFIC RELIEF ASSOCIATION

Anand Bhavan, 346, D. Naoroji Road, Fort, Bombay 1.

THE P. E. N. ALL-INDIA CENTRE Theosophy Hall, 40, New Marine Lines, Bombay 20.

Indian Branch of the International P.E.N. Club of leading poets, playrights, editors, essayists, novelists.

PHILATELIC SOCIETY OF INDIA

Hon. Secretary: D. E. Wadia, "B" Block, Shireen
Mansion, Tardeo Road, Bombay 7.

PRESS ASSOCIATION OF INDIA 196B, Gaiwadi, Girgaum, Bombay 4.

PRESS GUILD OF INDIA Majestic Hotel, 3rd Floor, Bombay 1.

PROTEIN FOODS ASSOCIATION OF INDIA Mahalaxmi Chambers, 22, Bhulabhai Desai Road, Bombay 26.

PUNJAB ASSOCIATION 403, Loha Bhavan, Frere Road, Bombay 9.

SIR RATAN TATA INDUSTRIAL INSTITUTE Hughes Road, Bombay 7.

The Institute helps to partially solve the problem of poverty and distress among Parsi families from the lower income groups, by encouraging girls and women to earn a living through suitable industries.

REGIONAL GRAND LODGE OF WESTERN INDIA Freemasons' Hall, Raveline Street, Fort, Bombay 1.

RELIGIOUS AMITY CENTRE
Mistry Court, 208, D. Watcha Road, Bombay 20.

SAFETY FIRST ASSOCIATION OF INDIA Stadium House, 2nd Floor, Veer Nariman Road, Bombay 20.

Is devoted to conservation of life and property; acts as clearing house on accident prevention matters; arranges lectures, exhibitions and film shows.

SAHAKARI KELAVANI MANDAL Sahakar Nivas, 20, Tardeo Road, Bombay 34.

SALES TAX PRACTITIONERS' ASSOCIATION
Mohata Market, 5th floor, Room No. 8, Palton Road,
Bombay 1.

SAMYUKTA KARNATAK SANGHA Navsari Building, D. Naoroji Road, Bombay 1.

SANSKRIT VISHVA PARISHAD (World Academy of Sanskrit) Bharatiya Vidya Bhavan, Chowpatty, Bombay 7.

SANTA CRUZ MALAYALEE SAMAJAM 14. Air View Building, Vakola, Bombay 55.

THE SEA CADET CORPS

T.S. "Jawahar". Pilot Bunder Road, Bombay 5.

The Sea Cadet Corps is a Voluntary Youth Organization whose objects are to give boys and girls aged 12 to 18 sea training and such other training as will develop in them qualities of good citizenship, and to help boys wishing to make their career at sea achieve their ambition.

There are over 600 Cadets in Bombay besides Units in Calcutta, Madras and Tiruchirapalli.

The Cadets attend instructional classes outside school hours and on Sunday mornings on board their National Headquarters T.S. 'JAWAHAR'. A Unit of the Sea Cadet Corps, has been commissioned in Visakhapatnam.

Secretary to the Sea Cadet Council and Captain Supdt. of the Sea Cadet Corps; G. S. Ahuja.

SERVANTS OF INDIA SOCIETY

BOMBAY BRANCH
Sardar V. Patel Road, Girgaum, Bombay 4.

SEVA SADAN Gamdevi, Bombay 7.

SHILPI KENDRA

Majestic, Colaba Causeway, Bombay 1.

Aims and Activities: To promote traditional handicrafts of India and give encouragement to Indian craftsmen.

Shilpi Kendra provides all information on Indian Handicrafts, their availability and Centres. It gives Annual Awards to Master Craftsmen for recognition of their great skill. It runs Shilpi Kendra Emporium, a non-profit making organisation, to help Indian Craftsmen to their legitimate earnings.

SHRI BRIHAD BHARATIYA SAMAJ N. K. M. International House, 178, Backbay Reclamation, Bombay 20.

A society for the promotion of economic, social, educational and cultural interests of Indians abroad.

SHRI SHANMUKHANAND FINE ARTS & SANGEETHA SABHA

Plot No. 292, Flank Road, Sion Matunga Estate, Bombay 22.

President: S. M. Y. Sastri; Vice-Presidents: A. S. Mani, S. R. Kasturi; Hon Secretaries: R. Viswanathan, N. R. Krishnaswamy; Hon. Treasurer: E. R. R. Chari.

SILK & ART SILK MILLS' RESEARCH ASSOCIATION

"Sasmira", Dr. Annie Besant Road, Worli, Bombay 18.

SOCIAL SERVICE LEAGUE

Servants of India Society's Building, Vallabhbhai Patel Road, Girgaon, Bombay 4.

> SOCIAL WORKERS' SOCIETY 207, Bazar Gate Street, Bombay 1.

SOCIETY FOR THE CAUSE OF MOTHERS' LINEAGE Plot No. B2, House No. R. 105, Theosophical Colony, Juhu, Bombay 54.

SOCIETY OF GOODWILL AND CULTURE Darya Bldg., 2nd Floor, 375, Dr. Dadabhoy Naoroji Road, Bombay 1.

SOCIETY OF THE JUSTICES OF THE PEACE AND THE HONORARY PRESIDENCY MAGISTRATES OF BOMBAY

116, "Giriraj", Sant Tukaram Road, Bombay 9.

SUR-SINGAR SAMSAD

Arun, Narayan Dabholkar Road, Bombay 6.

TARAPOREVALA MARINE BIOLOGICAL RESEARCH STATION Taraporevala Aquarium, Bombay-2.

TATA AGRICULTURAL AND RURAL TRAINING CENTRE FOR THE BLIND

Jehangir Wadia Bldg., Mahatma Gandhi Road, Bombay 1.

TAX-PAYERS' ASSOCIATION OF INDIA, LTD.
Fort Chambers A, Dean Lane, Hamam Street, Fort,
Bombay 1.

TEXTILE INSTITUTE

Bombay Section C/o. J. G. Parikh, "Sasmira", Dr. Annie Besant Road, Worli, Bombay 18.

UNITED KINGDOM CITIZENS' ASSOCIATION [BOMBAY BRANCH]

Cook's Bldg., Dr. Dadabhoy Naoroji Road, Bombay 1. UNITED LODGE OF THEOSOPHISTS

40, New Marine Lines, Bombay 20.

UNITED SEAFARERS' FEDERATION 235, Husseini Building, Frere Road, Fort, Bombay 1.

VISVA YOGA BHARATI
Vallabhnagar, Borivli, Bombay 92.

Objects: To train yogic staff to man educational

institutions.

WESTERN INDIA FOOTBALL ASSOCIATION
Cooperage Football Ground, Bombay 20.

THE YOGA INSTITUTE Headquarters, Santa Cruz, Bombay 55. YOGA SCIENCE UNIVERSITY
Yogamahavidyalaya Vidjnan Vidyapeeth.
Purshottam Bldg., Opp. Royal Opera House, 3,
Maharashi Karve Road, Bombay 20.
YOGIC SELF-CULTURE SOCIETY

(For simultaneous and harmonious development of spirit force, intellect and health through Yoga)
5, Vallabhnagar, Borivli, Bombay 92.

YOUNG MEN'S HINDU ASSOCIATION 141, Vithalbhai Patel Road, Bombay 4.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION 18, Madame Cama Road, Fort, Bombay 1.

ZOROASTRIAN ASSOCIATION 16, Horniman Circle, Bombay 1.

#### EDUCATIONAL INSTITUTIONS IN GREATER BOMBAY

List of Technical Institutions in Greater Bombay is available with the Director of Technical Education, Elphinstone Technical High School, Mahapalika Marg, Bombay 1.

#### MISCELLANEOUS

ACADEMY OF ARCHITECTURE
Javeri House, 110, Medows Street, Fort, Bombay.

ALEXANDRA COLLEGE OF COMMERCE Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Bombay 1.

ALLIANCE FRANCAISE DE BOMBAY French Bank Building, 21, Homji Street, Fort, Bombay 1.

ALL INDIA EDUCATIONAL & VOCATIONAL GUIDANCE ASSOCIATION
25, Souter Street, Bombay 8.

ALL INDIA INSTITUTE OF PHYSICAL MEDICINE
AND REHABILITATION
Hali All Book Clark Book Makelemi

Haji Ali Park, Clark Road, Mahalaxmi, Bombay 34.

ALL INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT 11, Horniman Circle, Bombay 1.

ANGLO-SCOTTISH EDUCATION SOCIETY
6, Outram Road, Fort, Bombay 1.

ARYAN EDUCATION SOCIETY 75, Girgaum Road, Bombay 4.

BALAK MANDIR

C/o P. K. V. Samaj, Gamdevi, Bombay 7.

Object: To impart education to children through Montessori methods.

BHARATIYA VIDYA BHAVAN Chowpatty Road, Bombay 7.

Bharatiya Vidya Bhavan, an institution founded on Nov. 7, 1938, devoted to the promotion of education, art and culture, conducts (i) Mumbadevi Sanskrit Mahavidyalaya for Shastric studies; (ii) Gita Vidyalaya for study of Bhagawad Gita; (iii) Mungalal Goenka Samshodhan Mandir for post-graduate studies and research in Indology; (iv) Bhavan's College, Andheri, for courses leading to M.A. and M.Sc.; (v) Bhavan's College, Chowpatty, for courses leading to M.A., Ph.D. and B.Sc.; (vi) Bhavan's Colleges at Ahmedabad and Dakor, for courses leading to B.A. and B.Sc.; B.Com. (vii) Sardar Patel College of Engineering, Bombay, for courses leading to B.E. (Electrical, Mechanical and Civil); (viii) Rajendra Prasad College of Mass Communications and Media, Bombay, Ahmedabad, Bangalore, and Delhi; (ix) Munshi Saraswati Mandir;

(x) V. R. Children's Library; (xi) Bhavan's V. M. Public School, New Delhi: (xii) Bhavan's V. M. Public School. Baroda; (xiii) Academy of Languages in Bombay, New Delhi, Madras and Coimbatore; (xiv) Bhavan's Mahila Mandal School, Andheri, for K.G. and Primary courses; (xv) Bharatiya Sangit Shikshapith; (xvi) Bharatiya Nartan Shikshapith; (xvii) Bharatiya Kala Kendra; (xviii) Bharatiya Itihas Vibhag which has undertaken the scheme of publication of the History and Culture of Indian People in II volumes; (xix) Prakashan Mandir: Indian People in II volumes; (xix) Prakashan Mandir: Publishes Book University Series of paper-back books, Munshi Sahitya, Singhi Jain Series, "Bharatiya Vidya" (Indological Quarterly), "Samvid" (Sanskrit Quarterly), "Bhavan's Journal" (English Fortnightly), "Samarpan" (Gujarati Fortnightly); (xx) Conducts Sanskritik Vikas Yatra to various pilgrim centres and places of historical interest; (xxi) Sanskritik Vichara Samiti; (xxii) Bhavan International; Conducts examinations in easy Sanskrit on all-India basis; Research work consists of 76 volumes published, an equal number under print and more under preparation; Many Chairs and Scholarships; Many scholars of all-India reputation on the staff : Bhavan's associated bodies : Sanskrit Vishva Parishad, Bharatiya Stree Seva Sangh, Bombay Astrological Society, Bombay Agri-horticultural Society; Bhavan's Kendras and Branches at Ahmedabad, Bangalore, Baroda, Calcutta, Coimbatore, Dakor, Delhi, Hyderabad, Kanpur, Jammu & Kashmir, Madras, Mauritius, Stuttgart (West Germany), California and Nashville (U.S.A.).

President: Dr. K. M. Munshi; Vice-Presidents: Smt. Lilavati Munshi, Girdharilal Mehta: Executive Secretary: S. Ramakrishnan.

BOMBAY CITY SOCIAL EDUCATION COMMITTEE Samaj Shikshan Mandir, Adarsha Nagar, Worli, Bombay 25.

BOMBAY CO-OPERATIVE SCHOOL 11, Bank Street, Fort, Bombay 1.

BOMBAY EDUCATION INSTITUTE Ganga Nivas, Ranade Road, Dadar (Western Railway), Bombay 28.

BOMBAY EDUCATION SOCIETY Clare Road, Byculla, Bombay 8.

BOMBAY EDUCATIONAL LEAGUE Shri Bhuwan, Hnd Floor, 169/20, Thakurdwar Road, Bombay 2.

BOMBAY HIGHER EDUCATION SOCIETY 208, Dinshaw Watcha Road, 2A, Mistry Court, Bombay 20.

Ams and Objects: To provide and promote higher education by giving financial aid to the needy and deserving students belonging to the educationally-backward communities.

BOMBAY SCHOOL OF REFRACTION (for the scientific correction of vision) Parker Bldg., 10, Cawasji Patel Street, Bombay 1.

BRITISH COUNCIL

Bombay Office:—French Bank Bldg., 4th Floor, Homji Street, Bombay 1.

Library:—N. K. Mehta International House, 178, Backbay Reclamation, Bombay 20.

Branch Libraries:—Poona: 917/1, Fergusson College Road-4; Bhopal: Tagore School of Fine Arts Building, Central T.T. Nagar.

H.Q. in India: 21, Jor Bagh, New Delhi:3; Other regional offices: Calcutta, Madras; Other branch libraries: Bangalore, Lucknow, Trivandrum, Patna, Ranchi.

The British Council, a body under Royal Charter is the principal agent of the United Kingdom for developing cultural relations with Commonwealth and foreign countries. *Principal Activities*: English language teaching and promotion of English studies; provision of library services (over 55,000 British Council Library members in India); arranging programmes for professional men and technical experts visiting Britain by invitation, and for similar visits by British professional men to India. Also concerned with welfare of overseas students in Britain. Acts as overseas arm for Voluntary Service Overaseas.

# BRITISH INSTITUTE OF ENGINEERING TECHNOLOGY (INDIA) PVT. LTD. 359, D. Naoroji Road, Bombay 1.

Provides postal courses for recognised professional examinations in Engineering & Commerce.

CENTRAL TRAINING INSTITUTE FOR INSTRUCTORS

Sion-Chembur Road, Bombay 70.

DAVAR'S COLLEGE OF COMMERCE, LAW, ECONOMICS AND BANKING

Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort, Bombay.

> DOCKYARD APPRENTICE SCHOOL Naval Dockyard, Fort, Bombay 1.

Dockyard Apprenticeships are offered to boys between 14-19 years under Apprenticeship Act, 1961 twice yearly in March and September. Competitive examinations and interviews are held in various recruiting centres in India. Period of apprenticeship three years.

"DUFFERIN," TRAINING SHIP Off Mazagon Pier, Bombay 10.

(Under the administrative control of the Government of India, Ministry of Transport).

The "Dufferin" is a pre-sea training ship for cadets aspiring to become Navigating Officers and ultimately the Captain of a ship in the Merchant Navy. A large number of Dufferin ex-cadets are also employed as officers in the Indian Navy, Port Services, Mercantile Marine Department and other ancillary services.

The course is of 2 years duration and consists of educational and professional subjects, stress being laid upon officer-like qualities and physical proficiency. All cadets are resident on board and are required to be physically fit to take part in all ship's activities. On satisfactory completion of training, cadets are accepted in sea-going ships of the Merchant Navy for 3 years apprenticeship.

After passing the Ministry of Transport Certificate of Competency they become qualified for apointment as Navigating Officers.

The age limits for admission are  $15\frac{1}{4}$  to 18 years on the 1st of July of the year of entry. Annually about 80 cadets who have matriculated are selected on the basis of an all-India qualifying examination, and interview. The approximate total cost to a parent is about Rs. 3,000. A large number of scholarships ranging in value from Rs. 400 to Rs. 3,000 are available.

Captain Superintendent .- Captain D. G. Hazari.

GENERAL EDUCATION ACADEMY Natraj, Opp. Rly. Stn., Bombay 71.

GOVERNMENT TRAINING INSTITUTE FOR PHYSICAL EDUCATION Kandivli, Bombay 67.

IMC ECONOMIC RESEARCH & TRAINING FOUNDATION

76, Veer Nariman Road, Churchgate, Bombay 20.

INDIAN INSTITUTE OF ARCHITECTS
Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road,
Fort, Bombay 1.

INDIAN INSTITUTE OF BANKERS
State Bank of India Building, Apollo Street, Bombay 1.

INDIAN INSTITUTE OF ROAD TRANSPORT BEST House, Fort, Bombay 1.

INDIAN INSTITUTE OF PACKAGING 254-C, A. Besant Road, Bombay 18.

INDIAN INSTITUTE OF PUPPETRY Datta Nivas, Shivaji Park Road No. 5, Bombay 16.

INDIAN INSTITUTE OF TECHNOLOGY P.O.I.I.T., Bombay, Powai, Bombay 76.

The Institute provides instruction and facilities for research in various branches of Science, Engineering and Technology and Applied Arts and for the advancement of learning and dissemination of knowledge in all such branches.

The Institute is fully residential and has accommodation for 2,200 students. Training is provided in Aeronautical, Chemical, Civil, Electrical, Mechanical and Metallurgical Engineering, leading to degrees of Bachelor of Technology, Master of Technology and Ph.D. in Technology, Science and Mathematics. Courses leading to degrees of Master of Science in Applied Geology (3 years' course) and Physics, Chemistry, Mathematics (2 years' course) are also offered. Post-graduate Diploma courses of one year duration in specialised fields are also offered.

Director: Dr. P. K. Kelkar.

INDIAN SCHOOL OF SYNTHETIC JURISPRUDENCE

Sethna House, 251, Tardeo Road, Bombay 7.

INDIAN STATISTICAL INSTITUTE
1st Floor, Nanabhai Mansion, Sir P. M. Road, Bombay 1.

INSTITUTE OF CATERING TECHNOLOGY AND APPLIED NUTRITION

Sponsored by the Min. of Food and Agri., Government of India. Sawarkar Marg, Bombay 28. INSTITUTE OF COMPUTER TECHNOLOGY
Aga Khan Building, Room No. 47, 2nd floor, Dalal Street,
Bombay 1.

INSTITUTE OF SECRETARIES
Lentin Chambers, Dalal Street, Bombay 1.

INSTITUTE OF LEATHER TECHNOLOGY Bombay 51.

INSTITUTE OF VOCATIONAL GUIDANCE

 Cruickshank Road, Elph. Tech. High School Bldg., 1st Floor, Bombay 1.

JAIN EDUCATION SOCIETY
14, Marzban Road, Fort, Bombay 1.

K. R. CAMA ORIENTAL INSTITUTE 136, Apollo Street, Fort, Bombay.

LAXMI COLLEGE OF COMMERCE Sharadashram Vidyamandir, Dadar, Bombay 28.

MAHARASHTRA STATE CO-OPÉRATIVE UNION

9, Bakehouse Lane, Fort, Bombay 1.

Apex body for Co-operative Education, Training Propaganda and Publicity in the Maharashtra State.

M. F. CAMA ATHORNAN INSTITUTE 24-26, Dalal Street, Fort, Bombay 1.

MMC SCHOOL OF MANAGEMENT Podar Chambers, Parsi Bazar Street, Bombay 1.

NATIONAL INSTITUTE FOR TRAINING IN INDUSTRIAL ENGINEERING (NITIE) Powai, Bombay 76 (NB)

The Institute is a Government of India Project undertaken with the assistance of the United Nations Special Fund through the International Labour Organisation. The main objective is to organise and develop in India comprehensive facilities for training executives in the area of Industrial Engineering and allied subjects, in order to equip them with skills for raising productivity efficiency in their organisations, and for training others wherever possible.

At present the Institute conducts about 80 Inter-Company courses of short duration on various subjects such as Work Study, Production Planning and Control, Personnel Administration, Business and Industril Management, Marketing, Maintenance, Computers-Analysis & Design, etc. Audio-visual aids are extensively used during training.

In addition, NITIE runs unit based programmes to suit specific needs of Industries/Organisations. The Institute has also started research and consultancy activities.

Director : Prof. N. S. Ramaswamy.

# NATIONAL KANADA EDUCATION SOCIETY

Sewri-Wadala Estate, Bombay 31.
Conducts a High School at Sewri-Wadala Estate,
Bombay 31DD.

OCCUPATIONAL THERAPY TRAINING SCHOOL & CENTRE K.E.M. Hospital, Parel, Bombay 12.

PEOPLE'S EDUCATION SOCIETY, BOMBAY Anand Bhavan, Near Flora Fountain, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Object: To promote higher education amongst the poorer people in general and the Backward classes in particular.

The Society runs 3 Colleges, 3 Diploma Institutes, 1 Night High School and a Research Centre in Bombay. It runs 4 Colleges, 2 High Schools and a Buddhist Centre at Aurangabad and 1 College in Mahad. The Society gives annual grant-in-aid to the Backward classes Hostel at Manmad, Nandurbar, Chalisgaon, Poona, Mahad, Nipani, Dholka and Patan.

Chairman: C. T. Parar, Dy. Chairman: R. D. Kowli, Secretary: K. B. Talwalkar.

RAO BAHADUR S. V. RAJADHYAKSHA G. S. B. FOREIGN EDUCATION SOCIETY
Chikitsaka Samuha Building, Kandewadi,
Bombay 4.

SARASWAT VIDYARTHI SAHAYAK MANDALI Office.—Chikitsaka Samuha Building, Kandewadi, Bombay 4.

SIR JAMSETJEE JEEJEEBHOY SCHOOL OF ART D, Naoroji Road, Fort, Bombay 1.

# TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Homi Bhabha Road, Bombay 5.

The Tata Institute of Fundamental Research which carries out fundamental research in physics, mathematics and allied sciences was established in June 1945.

The Government of India has recognised the Institute as the National Centre for advanced study and fundamental research in nuclear science and mathematics. The Institute is permanently recognised by the University of Bombay as a constituent recognised institution for postgraduate research in physics and mathematics.

The Institute is managed by a Council consisting of the representatives of the Govts. of India and Maharashtra and the Sir Dorabji Tata Trust.

J. R. D. Tata (Chairman); Professor M. G. K. Menon (Director).

TATA INSTITUTE OF SOCIAL SCIENCES Sion-Trombay Road, Chembur, Bombay 71, (AS)

Founded by the Sir Dorabji Tata Trust, in 1936, this pioneer institution, which is deemed to be a university, offers programmes of training leading to the Ph.D. degree in Social Work, Ph.D. degree in Social Sciences; M.A. degree in Social Work in the fields of Criminology and Correctional Administration, Family and Child Welfare, Medical and Psychiatric Social Work, Social Research, Urban and Rural Community Development, M.A. degree in Personnel Management and Labour Welfare and a one year certificate programme in Social Research.

The Department of Social Research promotes research in Social problems. The Indian Journal of Social Work, which is a quarterly, is published in April, July, October and January. The Institute has one of the best Social Science Libraries in the country with 26,000 books in

the related fields. A documentation list is published by the Library once a fortnight.

The Institute conducts a Child Guidance Clinic, a special school for bedridden hospitalised children at Parel and the Worli Community Centre.

The Institute provides accommodation for about 130 resident men and women students and some members of the staff.

Director: Dr. M. S. Gore: Registrar: A. Subramanian.

VAZIFDAR COLLEGE OF BUILDING INDUSTRIES

17, Arthur Bunder Rd., Colaba, Bombay 5.

VICTORIA JUBILEE TECHNICAL INSTITUTE Matunga, Bombay 19.

YOUNG MEN'S EDUCATION SOCIETY Ida Mansion, 18, Karwar Street, Fort, Bombay 1.

# MISSIONARY AND RELIGIOUS SOCIETIES IN GREATER BOMBAY

AHMADIYYA MOVEMENT 'Alhaq', 17, Club Back Road, Bombay 8.

ANJUMAN-I-FAIZ-I-PANJETANI 69, Samuel Street, Bombay 9,

The aims and objects of Anjuman-i-Faiz-i-Panjetani are to render service to pilgrims to the Hedjas, Iraq, Iran, etc.

ASTHIKA SAMAJ Asthika Samaj Building, King's Circle, Matunga, Bombay 19.

BIBLE SOCIETY OF INDIA AND CEYLON India House, Opp. G.P.O., Fort Street, Bombay 1.

BOMBAY SPIRITUAL CENTRE Indra Kunj, 2, Laburam Road, Gamdevi, Bombay 7.

BOMBAY ZOROASTRIAN JASHAN COMMITTEE Navsari Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

CHINMAYA MISSION
Sandupany Sadhanalaya, Powai, Bombay 70.
CHURCH MISSIONARY SOCIETY
Mission House, Proctor Road, Bombay 7.

INTER MISSION BUSINESS OFFICE Financial Hqrs., American Missionary Societies, 364, Dr. Dadabhoy Naoroji Road, Bombay 1.

> MAHA BODHI SOCIETY OF INDIA (Bombay Branch) Bahujan Vihar, Buddha Temple Street, Parel, Bombay 12.

> > MAI ADHERENTS' INSTITUTE Mai Niwas, Saraswati Road, Santacruz West, Bombay 54.

Founder: Late U. R. M. Mai's Mercy, Mai Swarup, Mai Markand. Spiritual Successor: Universal Religionist Mai-ism, Mai's Mercy, Mai Markand C. R. Nair. Branch Institutes: (1) Trichur: Kizhakkumpattukara, Trichur 5 (Kerala); (2) Perintalmanna (Kerala); (3) Madras: 55-S. M. V. Koil Street, Triplicane, Madras-5; (4) Palghat: Mai Soudham, Vadakkanthara, Palghat; (5) Mai Nagar, Polpully, Palghat.

This is an institute of brothers and sisters for the propitiation of God as Universal Mother, through Universal love, service, devotion and unconditional cheerful self-surrender and co-equal status of man and woman for invoking Mother's Mercy and Blessing with prayers and worship for universal peace, welfare and relief, and Mother's Mercy for individual bliss, peace and prosperity. The basic beliefs of Mai-ists are (1) Unity of all religions; (2) Universal relation of all human beings as members of one family having no communalism, provincialism, nationalism and racialism, (3) For Mother's Love, Grace, Devotion and Mercy, the daily practice of Universal Sisterhood and Brotherhood is indispensable and (4) Mai-ist's highest ideal:—Motherhood of God and Universality.

PRARTHANA SAMAJ Girgaum, Bombay 4. RAMAKRISHNA MISSION ASHRAM Khar, Bombay 52.

SHREE AYYAPPA BHAKTA SAMITI Star of Cochin, Opp. Broadway Cinema, Dadar, Bombay 14.

SOCIETY OF SERVANTS OF GOD Mayfair, 34, Little Gibbs Road, Bombay 6.

THEOSOPHICAL SOCIETY
Blavatasky Lodge, T.S. French Bridge,
Bombay 7.

WESTERN INDIA UNION OF SEVENTH-DAY ADVENTISTS

HEADQUARTERS ADDRESS: 16, Club Road, Byculla, Bombay 8.

# DISTRICTWISE ASSOCIATIONS IN MAHARASHTRA DISTRICTS

Ahmednagar to Yeotmal

American Marathi Mission, Ahmednagar; Ahmednagar Education Society, Ahmednagar; Hind Seva Mandal, Ahmednagar; Ahmednagar Jilha Saksharta Prasarak Mandal, Ahmednagar; Sarvodaya Centre, Rajur, Akola; Ahmednagar Pressowners' Association, Ahmednagar; Ahmednagar District Leprosy Relief Association, Ahmednagar; Indian Red Cross T.B. Sanatorium, Arangaon, Ahmednagar; Ahmednagar District Council for Child Welfare, Ahmednagar; Women's Rescue Home,

Ahmednagar; Anath Vidyarthi Griha, Ahmednagar; Ahmednagar District Farmers' Union, Ahmednagar; Mahila Mandal, Ahmednagar; Ahmednagar Medical Association, Ahmednagar; Satya Niketan Village Industries Association, Rajur; Ahmednagar Adat Bazar Merchants' Association, Ahmednagar.

VIDARBHA CHAMBER OF COMMERCE Akola.

SHARADA UDYOG MANDIR Near Jaystambha, Amravati.

It is a charitable and industrial institution to help widows and poor women by teaching handicrafts, tailoring, embroidery, etc.

SHRI SHIVAJI LOKA VIDYAPITHA (PEOPLE'S UNIVERSITY OF LITERATURE, ARTS, CRAFT AND CULTURE) Shivaji Nagar, Morshi Road, Amravati.

> VIDARBHA MAHAROGI SEVA MANDAL Tapoyan, Amravati.

A social organisation started mainly for the treatment of leprosy patients and eradication of leprosy from the State.

INDIAN INSTITUTE OF PHILOSOPHY

PRINCE SHIVAJI EDUCATION SOCIETY Sykes Extension, Kolhapur.

KOLHAPUR UDYAM COOPERATIVE SOCIETY LTD. Shivaji Udyam Nagar, Kolhapur 2.

> SHRI MOUNI VIDYAPEETH Gargoti, Kolhapur.

It is a research and experimental centre in the field of rural education.

ALTRUSA CLUB

(Assocn. of Women in Profession & Business) C/o Dr. (Miss) S. Iyengar, L.A.D. Coll. for Women, Nagpur 1.

> BLIND RELIEF ASSOCIATION South Ambazari Road, Nagpur.

CHRISTIAN MEDICAL ASSOCIATION OF INDIA Christian Council Lodge, Nagpur.

INSTITUTION OF ENGINEERS (INDIA)
North Ambazari Road, Nagpur.

MAHAVIDARBHA CHAMBER OF COMMERCE & INDUSTRIES Vohuman Lodge, Byramji Town, Nagpur 1.

MINERAL INDUSTRY ASSOCIATION
'Mineral House', Nagpur,

M.P. & VIDARBHA MINING ASSOCIATION Post Box No. 8, Nagpur.

NAG-VIDARBHA CHAMBER OF COMMERCE Suraya Vilas, Temple Road, Civil Lines, Nagpur.

President: Ranchoddas Mohota; Vice-Presidents: G. N. Daga (Sr.), B. Kamdar (Jr.); Secretaries: V. D. Loya, H. M. Shukla.

NAGPUR CHAMBER OF COMMERCE LTD. Cotton Market, Nagpur 2.

> NAGPUR HARDWARE & STEEL MERCHANTS ASSOCIATION Lahaoli, Itwari Bazar, Nagpur.

NAGPUR ORANGE GROWERS' CO-OPERATIVE ASSOCIATION LTD. Motibagh, Nagpur. NATIONAL ASSOCIATION OF PHYSICAL EDUCATION AND RECREATION, INDIA Mahal, Nagpur 2.

NATIONAL COUNCIL OF WOMEN IN INDIA Dolly Dale, Byramji Town, Nagpur.

THE TEXTILE MILLS' ASSOCIATION Subedhar's Bungalow, Road B, Street 4, Dhantoli, Nagpur.

VIDARBHA INDUSTRIES ASSOCIATION Bank of Maharashtra Bldg., 2nd Floor, Sitabuldi, Nagpur 1.

VIDARBHA SAMSHODHANA MANDAL (VIDARBHA RESEARCH SOCIETY) Near Law Coll., West High Road, Nagpur 1.

VIDARBHA SMALL SCALE INDUSTRIES ASSOCIATION

Liberty Bldg., Sadar, Nagpur 1.

YOUTH HOSTELS' ASSOCIATION OF INDIA 87, West Park Road, Dhantoli, Nagpur.

Convalescent Home (H. M. Phipson), Nasik Road; Niranjan Durlabhji Khetan Bal-Mandir, Panchvati; Anath Mahila Ashram, Tilabhandeshwar Lane, Nasik; Nasik Saraf Association, Saraf Bazar, Nasik; Red Cross Society, Ambedkar Colony, Nasik; Hindi Madhyamik Vidyalaya, Gandhi Nagar; Khadi Gramodyog Vidyalaya, Post Trimbak Vidyamandir, Nasik; Maharashtra Engg. Research Institute, Nasik; Dr. K. N. B. Memorial Sanatorium for Parsis, Deolali; M. R. H. Sanatorium, Nasik Road.

NASIK DISTRICT CHAMBER OF COMMERCE 986, Ravivar Peth, Nasik City.

ALL INDIA NON-EDIBLE OIL INDUSTRY ASSOCIATION

'Taru Sneha', 1153, Ganeshkhind Road, Shiyajinagar, Poona 16.

BHANDARKAR ORIENTAL RESEARCH INSTITUTE Poons 4.

Objects: To publish Critical Editions of texts and original works on Oriental antiquities and in general to promote the cause of Oriental studies.

BHARATA ITIHASA SAMSHODHAKA MANDALA 1321, Sadashiva Peth, Poona 2.

CAMP EDUCATION SOCIETY

Poona 1.

CENTRAL INSTITUTE OF MANAGEMENT FOR CONSUMERS' BUSINESS 78, Koregaon Park, Poona 1.

> CENTRAL MENTAL HOSPITAL Yeravda, Poona 6.

CENTRAL WATER AND POWER RESEARCH STATION

Kadakvasla South, Poona 4.

DECCAN COLLEGE POST-GRADUATE AND RESEARCH INSTITUTE
Yeravda, Poona 6.

DECCAN EDUCATION SOCIETY
Fergusson College, Poona 4.

FILM INSTITUTE OF INDIA Chiplunkar Road, Poona 4.

Nature of Body: Training in various branches of Film making. The objects of the Institute have been described in the article "Film Industry."

GOKHALE INSTITUTE OF POLITICS & ECONOMICS

Poona 4.

HANDLOOM PAPER RESEARCH INSTITUTE
Agricultural College Compound, Poona 5.

HINGNE STREE-SHIKSHAN SAMSTHA Karvenagar, Poona 4.

INDIA CHILD EVANGELISM FELLOWSHIP

2 Jubilee Road, Poona 1.

Also at 9, Bronson Garden Road, Kilpauk,

Madras 10.

INDIA FOUNDATION 595, Budhwar, Poona 2.

India Foundation is a public trust. Grant of scholarships and financial aid, gifts or loans, to students of outstanding merit in education, in India and abroad, irrespective of caste, creed, religion or language.

- 1. For Post-Graduate Education abroad: Scholarships, generally interest-free loans, refundable after completion of studies. The aid is further enlarged with the help of scholarships, assistantships, fellowships or grants obtained abroad for students of India Foundation from Universities, Professional Bodies, individual donors, Industries, and Institutions of higher learning.
- 2. Outside Academic Field: Aid or assistance for short-term is secured for professional men and women to acquire latest knowledge and technical know-how abroad, from institutions and sources interested in international promotion of education and understanding.
- 3. Smaller Stipends: For gifted needy students, of Rs. 10 per month for high school and Rs. 25 per month for college level.

INDIAN BUDDHIST SOCIETY
207, Ghorpadepeth, Poona 2.
(Head Office: 7, Forozeshah Road, New Delhi).

INDIAN INSTITUTE OF GERMAN STUDIES GOETHE INSTITUTE, BRANCH POONA 14/3B, Boat Club Road, Poona-1.

LINGUISTIC SOCIETY OF INDIA
C/o Deccan College, Poona 6.
(Head Office at Ashutosh Building, Calcutta).

KARVE INSTITUTE OF SOCIAL SERVICE Karvenagar, Poona 4.

LORD REAY MAHARASHTRA INDUSTRIAL MUSEUM

Ghole Road, Poona 4.

MAHARASHTRA ASSOCIATION FOR THE CULTIVATION OF SCIENCE Poons 4.

MAHARASHTRA STATE HORTICULTURAL DEVELOPMENT ASSOCIATION Horticultural Section, College of Agriculture, Poona 5.

MAHARASHTRA KARKHANDAR SANGH 82/5, Sadashiv Peth, P.B. No. 533, Poona 2.

MAHARASHTRA MUDRAN SHALA 1786, Sadashiv Peth, Poona 2.

MAHARASHTRA STATE POULTRY ASSOCIATION

C/o Poultry Development Officer, Government of Maharashtra, Poona 3.

> MAHARASHTREEYA MANDAL Tilak Road, Poona 2.

MAHARASHTRIYA KALOPASAK Appa Balawant Chowk, Poona 2.

MAHARATTA CHAMBER OF COMMERCE AND INDUSTRIES

Tilak Road, Post Box No. 525, Poona 9.

President: M. S. Parkhe; Vice-Presidents: C. V. Joag,
R. D. Pusalkar, V. N. Somvanshi, V. S. Vaidya; Hon.

Secretaries: A. R. Bhat, V. M. Deval.

MAHILA KALA MANDIR 623/33, Sadashiv Peth, Deshmukh Wadi, Poena.

PROGRESSIVE EDUCATION SOCIETY Shivajinagar, Poona 5.

POONA ANATH VIDYARTHI GRIHA 1786, Sadashiv, Poona 2 and Panchvati, Nasik.

POONA BLIND MEN'S ASSOCIATION 82, Rasta Peth, Poona 2.

POONA BOOKSELLERS ASSOCIATION C/o Dastane Ramchandra & Co., 455 Kasba Peth, Post Box 535, Poona 2.

POONA IRON & STEEL ASSOCIATION 150, Nanapeth, Poona 2.

POONA MERCHANTS' CHAMBER 185, Bhavani Peth, Poona 2.

POONA PAPER TRADERS' ASSOCIATION 495, Shanwar Peth, Poona 2.

POONA PRESS OWNERS'
ASSOCIATION LTD.
'Mudrak Bhavan,' 1078, Sadashiv, Poona 2.

POONA SEVA SADAN SOCIETY 613-614, Sadashiv Peth, Poona City.

QUEEN MARY'S TECHNICAL SCHOOL FOR DISABLED INDIAN SOLDIERS Park Road, Kirkee, Poona 7.

SERVANTS OF INDIA SOCIETY, POONA 4.

Its objects are to train national missionaries for the service of India and to promote, by all constitutional means, the interests of the Indian people. Its present strength is 13. It has its headquarters in Poona. The Society's work is primarily political but it also does

tribal welfare work in the Mirzapur Dist. (U.P.), Madras, Andhra Pradesh, Orissa and in Malabar on a considerable scale.

# SHIKSHANA PRASARAKA MANDALI S. P. College Bldgs., Poons 9.

The main object of the Society is to give education at moderate cost, by starting schools, colleges, etc. and to encourage Marathi Literature on a sounder footing.

The Mandali (Society) now conducts fifteen institutions in Bombay, Poona, Sholapur, and Shripur in Maharashtra.

# SHRI SHIVAJI PREPARATORY MILITARY SCHOOL Poons 5.

STATIONERY, CUTLERY AND GENERAL MERCHANTS' ASSOCIATION 794, Sadashiv Peth, Poona 2.

# TILAK AYURVEDA MAHAVIDYALAYA 583(2), Rasta Peth, Poona 2.

# VAIDIKA SAMSODHANA MANDALA Tilak Vidyapeeth Nagar, Poona 9.

A literary institution for the study, research and publication of Vedic and Iranian literature.

VAIKUNTH METHA NATIONAL INSTITUTE OF COOPERATIVE MANAGEMENT 5, B. J. Road, Poona 1.

VIRUS RESEARCH CENTRE (INDIAN COUNCIL OF MEDICAL RESEARCH) 20A, Wellesley Road, Poons 1.

> YOGIC RESEARCH, TRAINING AND THERAPEUTIC INSTITUTE KAIVAL-YADHAMA S.M.Y.M. SAMITI, Lonavla (C. Rly.).

DECCAN MANUFACTURERS' ASSOCIATION
"Rose Cottage", Sangli-Madhavnagar Road,
Sangli.

CHAMBER OF COMMERCE Sangli.

MADHAVNAGAR POWERLOOMS OWNERS'
ASSOCIATION

292, Main Road, Madhavnagar.

THE SANGLI INDUSTRIAL ESTATE CO-OPERATIVE SOCIETY LTD. Madhavnagar Road, Sangli.

MIRAJ MEDICAL CENTRE
Miraj

SPICES AND OILSEEDS EXCHANGE LTD.

Wakhar Bagh, P. Bag No. 105, Sangli.

The only Exchange in India recognised for control and regulation of forward trading in Turmeric.

Chairman: B. P. Nemani, Vice Chairman: V. G. Shah, Secretary: M. R. Purandare.

# Y.M.M.E. SOCIETY Sangli.

# SIR WILLIAM WANLESS CHEST HOSPITAL Wanless Wadi

RICHARDSON LEPROSY HOSPITAL Miraj Mission Hospital P.O., Miraj.

## DHARMAKOSHA MANDAL P.O. Wai

To conduct research in ancient Indian religion, philosophy and culture and edit and publish encyclopaedic works such as Dharmakosha, Mimamsakosha, etc.

# MAHARASHTRA STATE BOARD FOR LITERATURE AND CULTURE

Vishwakosha Unit Office, C/o Prajna Pathshala, Wai P.O.

# RAYAT SHIKSHAN SANSTHA SATARA (Educational Society of Masses)

Regional Offices: Satara, Sangli, Poona and Ahmednagar.

SATARA EDUCATION SOCIETY Satara.

SHOLAPUR CHAMBER OF COMMERCE Siddeshwar Market, W. Mangalwar Peth, Sholapur 2.

TEXTILE ASSOCIATION (INDIA) LTD.
The Lakshmi Cotton Mfg. Co., Ltd.
Sholapur.

# JAMNALAL BAJAJ CENTRAL RESEARCH INSTITUTE FOR VILLAGE INDUSTRIES Maganwadi, Wardha.

Estd. 1955. Aims & Objects: Research and investigation for the improvement of the tools and techniques of village industries.

# SARVA SEVA SANGH Gopuri, Wardha.

Object: The Sangh is to build a stateless and non-exploitative Society based on truth and non-violence. Its basic policy is to preserve moral values in human personality. The Sangh strives to eradicate distinctions of high and low based on caste, race, colour, sex etc. to abolish not only class-conflict, but classes themselves and promote mutual co-operation and remove the economic disparities in agriculture, industry and other fields through Gramdan, Khadi and decentralised economy. So far over 1,50,000 villages have decided to conduct their affairs on lines of Gramdan.

Shanti Sena Mandal is doing peace work in the country in general and in border areas in particular on behalf of the Sangh.

# DISTRICTS IN MAHARASHTRA

# AHMEDNAGAR DISTRICT\*

Headquarters: Ahmednagar.

The language spoken is Marathi.

The staple food grains are jawar and bajra. Wheat and gram are grown in the vicinity of the rivers and rice in the westernmost Akola Taluka including other irrigated areas. Vari and ragi are cultivated in soils which are suited to coarser grain. The pulses are tur, mung, math and kulith. Among the cash crops may be mentioned cotton, hemp, safflower, sesamum, linseed, sugarcane, tobacco, kardi, pan, groundnut, tomatoes, bananas and potatoes. Recently sisal fibre crop plantations are undertaken on an extensive scale.

The chief historical places of interest to visitors are the Ahmednagar Fort, the tomb of Mughal Emperor Aurangzeh

(on the outskirts of the town), the temple of Dnyaneshwar, the residential palaces of the Shindyas and the Peshawas at Jamgaon and Kopergaon respectively.

Among industries sugar is now one of the most important. There are twelve sugar factories in the District. Gur making, handloom weaving, iron foundries and bidi making are the other important industries.

There are ten irrigation tanks in the District.

There is a Holiday home at Bhandardara, a summer resort and hill station.

#### MAHATMA PHULE KRISHI VIDYAPEETH

(Agricultural University) Rahuri.

# **AKOLA DISTRICT\***

Headquarters: Akola.

The greater part of it is fertile alluvial land but the Satpura plateau rises abruptly on its northern border with the ancient fort of Narnala nestling on one of the hills and commanding the whole Poorna plain. The average rainfall is 30 inches and the temperature in summer rises in certain places to 118 degrees during the day.

The District is mainly agricultural but there are cloth mills, a number of cotton ginning and pressing factories and oil mills.

# AMRAVATI DISTRICT\*

Headquarters: Amravati. Amravati is a plain about 800 feet above sea-level.

The language spoken is Marathi.

The staple foodgrain is jawar. Other foodgrains are wheat and pulses. Cash crops include cotton and oilseeds, of which cotton is the more important.

# **AURANGABAD DISTRICT\***

Headquarters: Aurangabad.

The most important cave temples in India—at Ellora and Ajanta—are found in this District. The great fort of Daulatabad is an extraordinary structure; the village of Khuldabad has the tombs of the Emperor Aurangzeb and of Asaf Jah, the founder of the former ruling dynasty.

#### MARATHWADA UNIVERSITY

(Aurangabad)

Total No. of Affiliated Colleges: 41.

Total number of students in University Departments and all the affiliated Colleges: 28,526.

There are eight faculties in which provision for teaching courses of study leading to the following degrees has been made:—

Faculty of Arts: B.A., M.A., Ph.D.; Faculty of Science: B.Sc., M.Sc., Ph.D.; Faculty of Law: LL.B., LL.M.; Faculty of Medicine: M.B., B.S., M.D. & M.S.; Faculty of Commerce: B.Com., M.Com.; Faculty of Education: B.Ed., M.Ed.; Faculty of Engineering: B.E. (Civil), B.E. (Electrical), B.E. (Mechanical), M.E. (Civil); Faculty of Ayurveda: B.A., M.S.

The University has so far instituted the Departments of (i) Marathi Language and Literature, (ii) Economics,

(iii) Chemistry, (iv) Zoology, (v) Political Science, (vi) History and Ancient Indian Culture, (vii) Botany, (viii) Mathematics, (ix) Physics, (x) English, (xi) Commerce, (xii) Sociology, (xiii) Hindi, (xiv) Foreign Languages (German & Russian).

The post-graduate teaching has been instituted in the following subjects:—

English, Marathi, Hindi, Sanskrit, History, Economics, Urdu, Sociology, Education, Medicine, Law, Mathematics, Chemistry, Botany, Commerce, Engineering, Political Science and Zoology.

Research: Facilities exist for research in Economics, Chemistry, Zoology, Botany, Political Science, Marathi Language and Literature, History and Ancient Indian Culture, Mathematics and Physics, English, Urdu, Hindi.

Chancellor: Governor of Maharashtra; Vice-Chancellor: Dr. N. R. Tawde; Registrar: V. K. Dhamankar.

#### Budget Estimates for 1969-70

Grants from the State Government: Rs. 30,67,174. Grants by the University Grants Commission and the Government of India: Rs. 18,80,309. Other Income: Rs. 29,20,622. Expenditure: Rs. 78,68,105.

<sup>\*</sup> For the area and population of the districts, see main article Population.

# **BHANDARA DISTRICT\***

Headquarters: Bhandara.

The chief language is Marathi but Hindi is also spoken by a considerable section of the population.

The principal food crops are rice, jawar, wheat, gram, linseed and pulses. Ginger, oranges and plantains are also

grown and sent to Nagpur. Mineral deposits include those of manganese, iron and a little gold.

The chief industries are weaving, making of brass vessels and stone jars, of soft grass matting for bedding, and of bamboo baskets.

# **BHIR DISTRICT\***

Headquarters : Bhir.

There are forts and buildings at Bhir which are of archaeological interest. Amba has a temple dedicated to Jogai. The temple of Baijnath at Parli is a celebrated place of Hindu pilgrimage.

The soil is mostly black cotton. On this are grown cotton, white jawar, gram, gingelly and wheat, while on the masab and kharab soils are grown white bajra, yellow jawar, pulses and oilseeds. Cotton and linseed are produced extensively in the District. The staple food crops are jawar and bajra. Wheat and rice are next in importance.

# **BULDANA DISTRICT\***

Headquarters : Buldana.

The language spoken is Marathi.

Jawar is the chief food crop, though wheat is also grown. The most profitable cash crop is cotton with oilseeds

coming next.

The principal industry is the preparation of cotton for the market. Exports consist of raw cotton, oilseeds, grain and pulses, and the imports include grain and pulses, coal and coke, sugar and salt.

# CHANDA DISTRICT\*

Headquarters: Chanda.

The languages spoken are Marathi, Hindi, Telugu and Gondi.

Except in the open country on the west and north, the whole District is thickly wooded.

The forest vegetation in the District is of a mixed character. Teak is fairly general but is not anywhere very plentiful. The principal trees are Saj, Bijasal, Rohan, Kaddan, Haldu, Semal, Mahua, Dhaura, Tendu, Garari and Palas. The forests are well distributed, and very few

villages are more than three miles from some part of them.

The annual rainfall averages about 51 inches at Chanda Town and 46 at Warora.

Rice which is the most important crop is grown in the centre and east of the District. Jawar is the chief crop in Sironcha and the Warora Tahsils, while linseed, gram and wheat are grown principally in the black-soil lands of the Chanda Haveli and those adjoining the Wardha river. Cotton is also an important cash crop.

Coal-mines occur and there are match factories, ceramic industries and paper manufacture.

# DHULIA DISTRICT\*

Headquarters : Dhulia.

The languages spoken are Marathi, Gujarati and Bhil.

The main crops of this District are cotton, wheat, bajra, jawar and groundnut. Sugar-cane and chillies form the main irrigated crops. There are two types of irrigation in this District: (1) Well irrigation and (2) Bandhara irrigation.

There is a Government Agricultural Institute, where Gram Sewaks are trained.

INDUSTRIES

Dhulia is the biggest cotton centre in the Dhulia District and has a well regulated Cotton Market. There is also another regulated Cotton Market at Dondaiche in the Sindkheda Taluka. There are spinning and weaving factories as well as cotton ginning and pressing factories.

Dhulia has also been lately developing into a groundnut oil industry centre. There are about 42 oil mills, including 14 at Dhulia, which together produce about 2,000 tons of groundnut cake. There are also saw mills.

The newly built hill station of Toranmal, is situated on the Satpura range plateau at an altitude of 4,200 feet. The climate is very salubrious.

# JALGAON DISTRICT\*

Headquarters : Jalgaon.

Jalgaon District, with Jalgaon as capital, is one of the northernmost Districts in Maharashtra.

\* For area and population of the districts, see main article Population.

AGRICULTURE

The most important crops are cotton, groundnuts, jawar, bajri, gram, millet, linseed and sesamum. The most

important garden crops are chillies, corriander, melons, watermelons, betel leaf, bananas, mosambis, santra and sugarcane. Cotton and groundnut are even more important. There is a large export trade in groundnut oil and hydrogenated oil or vanaspati.

Jalgaon is the biggest town and District headquarters, a great trade centre, and also an educational centre. The town is 37 miles from Ajanta Caves.

The rainfall (mean annual is 28.27 inches) is usually both general and regular, which fact in itself discourages irrigation, except for two weirs, at Jaunda (Chalisgaon taluka) and Dahigaon (Erandol taluka) on Girna River project. irrigating about twenty thousand acres of land.

The main industry is based on agriculture. There are several oil mills in the District, besides several bullock driven presses. There is a silk mill in the District. There is also a factory, which manufactures crackers and fireworks.

There are in the whole District three spinning and weaving factories, about 100 cotton ginning and pressing works, about ten dyeing factories, three big railway workshops (at Bhusawal) all employing more than 26,000

# **KOLABA DISTRICT\***

Headquarters: Alibag.

Notable places in the District are Raigarh near Mahad, once the capital of the great Shivaji and Kanakeshwara near Alibag, which is now a holiday resort being situated on a hill. Elephanta in Kolaba is famous for caves. Alibag has the world famous magnetic observatory. The historical sea-fort Kolaba, at Alibag, was the naval capital of Shivaji.

# AGRICULTURE, POWER

On the flat lands of the District rice is grown, and the sea-front is fringed by a belt of coconut and arecanut

palms. There is large-scale plantation of mango grafts. There is a thriving fishing industry. The District has three Power Houses. Uran and Pen are big salt-producing centres. Panvel and Khapoli have assumed importance for their industrial growth in recent years.

## MATHERAN (HILL STATION)

Matheran is a hill station and sanitarium, about three hours' journey from Bombay and Poona. Visitors are conveyed up the hill from Neral (Central Rly). The town is about 2,500 feet above sea-level, and is a favourite hot weather resort.

# **KOLHAPUR DISTRICT\***

Headquarters: Kolhapur.

The language spoken is mostly Marathi, though Kannada is also spoken in a few parts. Kolhapur city, the headquarters, is a great trading centre for jaggery.

The chief agricultural products are jawar, rice, cotton, nagli, bajra, wheat, tobacco, sugarcane and groundnut.

Besides cotton mills, there are ginning and pressing factories. There are also ginning and powdering mills, groundnut crushing and oil mills, a sugar mill, cinema-film producing companies and soap factories and repair workshops.

## SHIVAJI UNIVERSITY

Kolhapur 4.

It has jurisdiction over the five districts of Southern Maharashtra, i.e. Kolhapur, Sangli, Satara, Sholapur and Ratnagiri. There are 66 colleges and institutes within the area of the University of which seven are situated at the

seat of the University. The University has the following faculties. 1. Faculties of Arts and Social Sciences: B.A.; M.A.; Ph.D.; D.Litt.; B. Lib. Sc.; Dip. in Coop.; Certificate in Journalism; M.S.W.; Diploma in teaching English as a foreign language. 2. Faculty of Science: B.Sc.; M.Sc.; Ph.D., D.Sc. 3. Faculty of Law: LL.B.; LL.M.; Dip. in C.F.Sc. 4. Faculty of Commerce: B.Com.; M.Com. 5. Faculty of Education: B.Ed.; M.Ed.; Ph.D.; T.D. (Dip. in Teaching). 6. Faculty of Engineering: B.E. (Civil); B.E. (Mechanical); B.E. (Electrical); M.E. 7. Faculty of Medicine: M.B.B.S.; B.Pharm., M.Sc. (Anatomy), Physiology, Pharmacology, Physiological Chemistry.

Chancellor: Governor of Maharashtra. Vice-Chancellor: Dr. A. G. Pawar. Registrar: R. A. Kadiyal (Acting).

Budget (Estimates) 1969-70:

Total Income: Rs. 93,79,639; Total Expenditure: Rs. 1,05,16,125.

dotted on the hills, extending along the south-western

Cotton and jawar are the chief produce of the District

which is also famous for its oranges. There are some

manganese mines and limestone quarries in the District

The annual rainfall averages about 47.5 inches.

# NAGPUR DISTRICT\*

border.

Headquarters: Nagpur.

The language spoken is Marathi.

The richest part of the District is the western half of the Katol Tehsil. It possesses a soil profusely fertile and toems with the richest garden cultivation. From Pikapar Hills in the Katol Tehsil the plains extend to the eastern border. Its surface is scarcely ever level, but it is closely cultivated, abounds in mango groves and trees of all sorts, and towards the east is studded with small tanks which form a feature of the landscape. The elevation of the plain country is from 900 to 1,000 feet above sea-level.

The forests are mainly situated in a large block on the

Satpura Hills to the north-east, while isolated patches are

and coal-mines at Kamptee.

There are five textile mills in Nagpur City, 2 steel Rerolling Mills, a number of oil mills, a pottery concern, saw mills, a rubber factory, a thriving frame making industry, a large fruit canning industry and a large number of handloom factories. Nagpur saris are in great demand in all parts of the country.

<sup>\*</sup> For area and population of the districts, see main article Population.

#### NAGPUR UNIVERSITY

Chancellor, Governor of Maharashtra. Vice-Chancellor, Dr. V. B. Kolte. Registrar, Dr. S. V. Bhagwat.

Teaching and affiliating: University Colleges 3, University Teaching Departments 25; Affiliated Colleges 97. Students (1968-69):

University Colleges: 1,177 (Men 1,102; Women 75).

University Teaching Departments: 1,191 (Men 811; Women 380).

Affiliated Colleges: 58,949 (Men 48,569; Women 10,380).

# NANDED DISTRICT\*

Headquarters: Nanded.

The District is on the whole dry and healthy. The annual temperature varies between 100° and 60°. The average rainfall is about 35 inches.

There are tombs of Muslim saints and Nanded has the

Gurudwara of the Hyderabad Sikhs where Guru Govind was buried.

Rabi crop consists of jawar, gram, wheat, oilseeds. The Kharif crop consists of bajra, linseed, cotton and maize. The staple food crop is jawar and the main cash crop cotton.

# NASIK DISTRICT\*

Headquarters: Nasik.

Nasik District is a historic place in Maharashtra and the city one of the oldest in the Deccan and a place of pilgrimage. The language spoken is Marathi.

With the exception of a few villages in the west the whole District lies on a tableland at an elevation of 1,300 to 2,100 feet above sea-level.

The main food crops are rice, wheat and bajra.

# OSMANABAD DISTRICT\*

Headquarters: Osmanabad.

The average annual rainfall is about 32 inches.

Six places of archaeological interest are the fort of Naldrug, the Jumma Masjid in Owsa Taluka, the caves around the town of Osmanabad, the two caves at Hasangaon, the old fortress at Parendah. Tuljapur is a place of Hindu pilgrimage.

The staple food grain is jawar. Wheat, rice and bajra are next in importance. Cotton is grown everywhere, while sugarcane is sometimes grown with well irrigation.

# PARBHANI DISTRICT\*

Headquarters: Parbhani.

The climate is healthy from February to May but it is feverish during the monsoon and the cold weather. The annual range of temperature is from 105° to 60°. The average annual rainfall is about 35 inches.

Structures of note in the District are the temple of Nagnath at Aundh, the Jain temple of Parsnath near Jintur, the temple near Bamu and the shrine of Ramzan Shah.

The soil is partly black cotton and partly masab and kharab. On the black soil are grown white jawar, wheat, gram, tuar, while on the kharab soils are grown jawar, bajra, indigo, sesamum, oilseeds and pulses. The staple food crops are jawar, wheat and bajra. Cotton is grown throughout the District. About one-twentieth of the land is under forest.

# POONA DISTRICT\*

Headquarters: Poona.

The language spoken is Marathi.

The rainfall varies considerably in different parts of the District. In the western parts it is heavy and regular, in the central belt moderate, and in the east very irregular. The main crops are paddy and jawar. But the District is a deficit area in the matter of foodgrains. The District has an exportable surplus of jaggery and sugar.

It is the headquarters of the Southern Command and also of the Poona Sub-Area. The National Defence Academy is located in Khadakvasla. Some of the other military establishments around Poona are: the Ordnance Depot and the Arsenal at Kirkee and the Vehicles Depot at Dehu Road. The Indian Navy Mechanical Training establishment I.N.S. "Shivaji" is located at Lonavla, and the newly established Naval Engineering College, first of its kind in India, in the precincts of I.N.S. "Shivaji". Ammunition Factory, High Explosives Factory and 512 Command Workshop are all at Poona.

Armed Forces Medical College for post-graduate training in military medical science is also located in Poons. A Medical College for degree course run by the Army, which is perhaps the only one of its kind in the world from the point of view that the Army is running it, is located in

Yet other institutions are the Institute of Armament Studies and the Artificial Limbs Centre, the only one of its kind not only in India but also in South and West Asia and the fourth largest in the world. A gliding centre is also located near Poona. The National Cadet Corps Academy on Purandhar Fort is 30 miles South-East of Poona College of Military Engg.

Other important institutions of All-India character located in Poona are given below:

Meteorological Office; Central Water and Power Research Station; National Chemical Laboratory; Overseas Communications' Beam Wireless Station at Dight; Headquarters of the Servants of India Society; Bhandarkar Oriental

<sup>\*</sup> For area and population of the districts, see main article Population.

Research Institute; Penicillin Factory, Pimpri; Virus Research Centre, the only one of its kind in India; The Film Institute of India.

Besides the two industrial estates at Hadapsar and Pimpri, the whole belt along the Bombay-Poona Road from Kirkee, Dapodi, Pimpri, Chinchwad upto Lonavla is fast attracting industries of various types.

There are 4 sugar factories in the Dist. and 1 sugar manufacturing machinery factory at Pimpri.

The district can also boast of important places of historical and archaeological interests. Shivneri fort, birth place of the great Maratha Hero, Chhatrapati Shivaji, the famous Karla & Bhaja caves which constitute a fine example of Buddhist architecture of 1st Century B.C., Samadhis of Kasturba Gandhi and Mahadevbhai Desai are located in the district.

#### LONAVLA

This hill station is situated at the top of the Bhore Ghat inclined about 2,030 feet above sea-level.

The Govt. of Maharashtra has started a holiday camp at Karla at a distance of about 1½ miles from Malawali Railway Station.

The following are some of the Forts and places of interest:—

Fort of Lohgadh, Fort of Visapur, Fort of Rajmachi which stands on the top of the Sahyadri Range and commands a grand view of Matheran, Konkan and even part of Bombay, Duke's Nose, Tungarli Municipal Lake.

The temperature varies from 65 in the cold weather to 85 in the hottest month. The rainfall varies from 160 to 250.

#### KHANDALA

Khandala, a health resort, 78 miles from Bombay by rail and 71 by road lies in Mawal Taluka. It is situated at the top of the Bhor Ghat at an elevation of about 2,000 feet above sea-level, and has an agreeable and bracing climate all through the year.

Among places worth a visit in and around the town are Tata Electric Supply Company's reservoir called Forbay Dam, Byramjee's Point, the Duke's Nose, Tiger's Leap, all of which provide magnificent views of the surrounding country. About nine miles from Khandala are the Karla caves considered to be the oldest specimen of Buddhist caves in India. In Walwan lake which is about four miles from Khandala good mahashir fishing is available. At Khandala "Rajmachi Park" is one of the most beautiful spots.

# UNIVERSITY OF POONA

Ganeshkhind, Poona 7.

The University is both teaching and affiliating in character.

It has the following nine Faculties and has provision for courses for the following degrees:—Faculty of Arts: B.A., M.A., Ph.D., D.Litt., B.A. (External), M.A. (External); Faculty of Mental, Moral and Social Sciences: B.A., B.A. (External), M.A., M.A. (External), B.Ed., M.Ed., Ph.D., D.Litt., B.Lib.; Faculty of Commerce: B.Com., B.Com. (External), M.Com., M.Com. (External), Ph.D., D.Litt.; Faculty of Science: B.Sc. (General), M.Sc., M.Sc. (Maths.), M.Sc. (Maths.), Ph.D.; Faculty of Law: LL.B., LL.M., LL.M. (External), Ph.D.; Faculty of Medicine: M.B.B.S., M.D., M.S., Ph.D., B.Sc. (Nursing), M.Sc. (Med.); Faculty of Engineering: B.E. (Civil, Mechanical, Electrical, Telecommunications Instrumentation and Metallurgy), M.E., M.Sc. (Engg.), Ph.D.; M.Sc. (Agri.), Ph.D.; Faculty of Ayurvedic Medicine: B.A.M. & S., M.A.Sc.

The University has instituted external degrees for the benefit of employed persons and married women, the B.A. (External), M.A. (External), B.Com. (External) and M.Com. (External) degrees in the Faculties of Arts and Mental, Moral and Social Sciences and Faculty of Commerce, M.Sc. (Maths.) (External) in the Faculty of Science, LL.M. (External) in the Faculty of Law to which students can qualify by appearing for the examinations direct without having to undergo instruction in a College or University.

The following diplomas and certificates have been instituted (1) Diploma in Oriental (Sanskritic) Learning; (2) Certificate and Lower and Higher Diploma Courses in Modern Foreign Languages (French, German and Russian); (3) Diploma in Public Health; (4) Diploma in Psychological Medicine; (5) Diploma in Anaesthesia; (6) Diploma in Music; (7) Diploma in Clinical Pathology; (8) Diploma in Medical Radiological Diagnosis; (9) Diploma in Gynaecology and Obstetrics; (10) Diploma in Ophthalmic Medicine and Surgery; (11) Diploma in Education; (12) Diploma in Oto-Rhino Laryngology; (13) Diploma in Venereology and Dermatology; (14) Diploma in Chest Diseases; (15) Diploma in Child Health.

The University has in all 65 affiliated colleges and 7 recognized research institutions.

The total strength of students in all the colleges and the University is in the neighbourhood of 42,274.

Chancellor: Governor of Maharashtra; Vice-Chancellor: Dr. B. P. Apte; Registrar: W. H. Golay.

# Budget (1970-71)

Income: Rs. 2,22,28,068; Expenditure: Rs. 2,32,26,751.

## RATNAGIRI DISTRICT\*

Headquarters: Ratnagiri.

This is the backward district with peculiar circumstances. Ratnagiri is known and famous as the birth place of Lokamanya Tilak.

The main crop is Alphonso mango — the king of fruits. The chief crop is rice on banks of rivers and on plain ground on 3,15,840 acres of land yielding 1,13,300 tons. Groundnut and sugarcane crop is under experiment since

two years. Second important crop in the form of industry is sea fish.

One hundred and seventy-five High Schools, 5 Colleges, one Agricultural College, 8 Training Colleges (6 males and 2 females), Polytechnic, I.T.I., N.C.C. Unit cater to the educational needs of the district.

Ratnagiri midway between Bombay and Goa is soon going to be converted into an all weather port at Mirya

<sup>\*</sup> For area and population of the districts, see main article Population.

Bay. Jaygad and Vijaydurg are safest ports. Several others are under improvement. Sindhudurg sea fort near Malwan was constructed some 300 years back by Shivaji, of which Government is undertaking reconstruction.

This district has 15 weekly newspapers, all except one at Ratnagiri.

The southern district and Bombay are linked to Ratnagiri by sea in the fair season and by road all the year. State Transport buses are plying direct to Bombay from several places in the district.

Bhagini Mandal and Mahila Mandal are the organisations at Ratnagiri devoted to female activities. At Sawantwadi there is a NIVARA KENDRA for the relief of the distressed and uncared for ladies. Kasturba Arogya Kendra and Matru Mandir at Lanja and Devrukh respectively do good for ladies and children. Animal husbandry centres, Health and S.M.P. Centres with five Ayurvedic Dispensaries give service to animals and human beings.

Notable place in this district is Marleshwar, a place about 10 miles to the east of Devrukh in Sahyadri in the interior. Temple of God Shiva is encircled by very high hills. This place is known for purity.

The climate of the district is moderate.

# SANGLI DISTRICT\*

Headquarters: Sangli.

Sub-Divisions: Miraj, Khanapur.

The climate of the District is generally dry and healthy, with an average rainfall ranging from 15 to 25 inches.

The Krishna, the Verala, the Warana, and the Agarani are the four important rivers flowing through the District. The soil on the banks of these rivers is very fertile, yielding rich sugarcane crops.

The principal crops grown in the District are jowar, millets, pulses, wheat, groundnut, turmeric, tobacco,

sugarcane and a little cotton and rice and some oilseeds.

Sangli, which is the headquarters of the District, is an important centre of trade and commerce specially for tobacco, groundnuts, turmeric, jaggery, chillies, ghee, and cotton trade. It has ginning, weaving and spinning mills, groundnut, turmeric, iron and steel factories. The town is also known for its silver, copper and brassware and gold ornaments. Bidi making is another big industry.

Besides, Sangli is a big centre of forward-delivery transactions in groundnut-kernel.

# SATARA DISTRICT\*

Headquarters: Satara.

The language spoken is Marathi.

The chief agricultural produce are jawar and bajri. Others include ragi, wari, wheat, rice and pulses. Cash crops which are a minor item include tobacco, groundnut and sugarcane.

Forests in the Sahyadri range have considerable store of timber and fire-wood. Sandalwood and bamboo are occasionally found.

Government have undertaken the Koyna river project envisaging the construction of a gigantic Dam close to Helwak village (Patan Taluka) water from which can be used for agricultural purposes by people from Satara, Sholapur and Bijapur Districts and for generating electricity for industrial purposes.

There is a large engineering concern manufacturing farm implements, machine tools, and textile machinery at Satara Road Station. Another engineering concern has been established at Udyamnagar near Karad while the one at Karad proper has been expanded with State aid.

#### MAHABLESHWAR

Mahableshwar, 75 miles from Poona, is called the queen of the hill stations in Maharashtra. It is situated on one of the great slopes of the Sahyadri range at an elevation of 4,700 feet above sea-level. During the 8 months from October to May the climate is most agreeable. By day the temperature varies between 80 and 86, while the nights

are cool and pleasant. But during the monsoon the rainfall is so heavy, the average being about 250 inches a year, that the place is almost uninhabitable.

It is now possible for people of moderate means to go to the hill station for a comparatively inexpensive holiday and change in the newly opened Holiday Camp set up by the Maharashtra Govt.

The Camp is normally thrown open during the months October to May, and applications for accommodation have to be addressed to the Executive Engineer, Poona Division, Poona. Hotels are open only eight months in the year and are closed during the monsoon.

# **PANCHGANI**

Panchgani is a well-known hill station in Satara District, situated 63 miles from Poona. It is 4,300 feet above sea-level and has a cool, salubrious and comparatively dry climate. The average rainfall is about 80 inches a year. Panchgani is thus a well-known sanatorium.

Panchgani is habitable throughout the year, and there are excellent shops for provisions and oilman stores. The town is electrified and the roads are well lighted. The town has a large and up-to-date tuberculosis sanatorium—Bel Air Sanatorium.

Panchgani is famous for its schools. They all have their own buildings with laboratories, dormitories and hospitals.

# SHOLAPUR DISTRICT\*

Headquarters: Sholapur.

The languages spoken are mainly Marathi and also Telugu and Kannada.

<sup>\*</sup> For area and population of the districts, see main article Population.

# THANA DISTRICT\*

Headquarters : Thana.

The languages spoken are Marathi, Gujarati and Urdu.

In the north-east the hills are covered with wood, and the valleys are but partially cultivated. The villages are seldom more than scattered groups of huts, and the population consists mainly of uncivilised aboriginal tribes, many of whom still wander from place to place as they find water or to suit their fancy.

Thana District is fast developing into a prominent industrial area. Hundreds of acres of land are being converted into sites for factories. Scores of factories have already been set up particularly along the railway track and the Bombay-Agra and Bombay-Poona Roads.

Bhiwandi, a Taluka town nine miles from Thana situated on the Bombay-Agra Road is noted for handloom and powerloom fabrics. The town is mostly inhabited by Momins and in some parts of the town every house has a spinning wheel. Bhiwandi Taluka is also famous for its timber and charcoal trade.

Kalyan, the biggest and the most thickly populated town in the District, is 34 miles from Bombay and is a junction on the Central Railway's north-east and southeast sections. "Ulhasnagar" the largest refugee township in Maharashtra is situated in Thana District, two miles from Kalyan near the Ulhas River. The township is designed to accommodate 90,000 people.

The main produce of the District is rice which is of superior Kolamb variety.

Dahanu and Bassein Talukas are specially famous for fruit gardens and the bulk of Bombay's fruit supply comes from these areas.

At Thana, Bhayandar and Belapur there are extensive salt works.

The chief articles of export from Thana District are paddy, rice, vegetables, salt, betel-leaves, plantains, bricks, grass, firewood, charcoal, lime, fish (fresh or dried), timber, coconuts, mangoes, flowers, saris, handloom fabrics, woollen cloth and milk.

Tansa and Vihar lakes and the Vaitarna river which are the main sources of Bombay's water supply are situated in Thana. District and are connected with Bombay by a special trolly line.

The Fort, the Portuguese Cathedral, a few carved and inscribed stones, and several reservoirs are now the only signs that Thana was once an important city. Bassein, on the Western Railway, contains the famous ruins of the ancient Portuguese dominion in Salsette.

# WARDHA DISTRICT\*

Headquarters: Wardha.

The languages spoken are Marathi and Hindustani. Wardha is noteworthy in that it has been the

seat of a number of Gandhian institutions concerned with village uplift and the ideals of self-sufficiency and self-service.

Wardha has black cotton soil and the most important cash crops grown are jawar and cotton. Though there are rivers like Wainganga, agriculture depends on rain. There is thus an elaborate programme today for sinking new wells and deepening old ones. There are pressing and ginning mills in the District and also textile mills.

# YEOTMAL DISTRICT\*

Headquarters: Yeotmal.

The language spoken is Marathi.

The staple foodgrain is jawar; other foodgrains are wheat and pulses. As elsewhere the most profitable cash crops are cotton and oilseeds. Forests cover a larger area than in any other District in the State and yield considerable quantity of timber and fuel. The principal industry is the preparation of cotton for the market.

Industries, Electricity (except Generation of Electricity)

Buildings & Communications & Tourism, M. A. Vairale.

Food, Civil Supplies, Revenue, Khar Lands and Fisheries,

# ADMINISTRATIVE PERSONNEL

Bombay

#### Governor

NAWAB ALI YAVAR JUNG BAHADUR

#### **Ministers**

Chief Minister-in-Charge of General Administration, Home, Planning and Inf. & Publicity, V. P. Naik.

Irrigation, Power and Generation of Electricity, Leg. Affairs & State Road Transport Corpn., S. B. Chavan.

Agriculture, P. K. Sawant. Urban Development, P. G. Kher.

Finance, Law and Judiciary and Small Savings, S. K. Wankhede.

Education & Cultural Affairs, M. D. Chaudhari. Labour & Rural Development, N. M. Tidke. Public Health and Wakfs, Dr. Rafik Zakaria. Forests & Housing, N. K. Tirpude.

Ministers of State

and Printing Presses, R. A. Patil.

Co-operation, Y. J. Mohite.

Prohibition, B. M. Yagnik.

Social Welfare, B. M. Bharaskar.

H. G. Vartak.

Agriculture, Planning and State Road Transport Corpn., B. J. Khatal; Home and Labour, K. P. Patil; Buildings and Communications and Legislative Affairs, D. S. Jagtap; Co-operation and Social Welfare, S. B. Patil; Urban Development, Public Health and Housing, M. J. Agrawal; Revenue and Sports, S. A. Solanke; Rural

<sup>•</sup> For area and population of the districts, see main article Population.

Development and Rehabilitation of Project Affected Persons, E. B. Nimbalkar; Irrigation, Power Projects and Protocol, S. G. Patil; Education, Law and Judiciary, Fisheries and Minor Ports, A. R. Antuley; Industries, Electricity (except Generation of Electricity), Information & Publicity and Forests, T. D. Deshmukh (Parvekar).

# Deputy Ministers

Agriculture and Urban Development, V. B. Hiray; Public Health, Prohibition, Tourism and Legislative Affairs, Smt. Pratibha Patil; Forests and Social Welfare, R. M. Patel; Irrigation, Power (except generation of Electricity) and Education, R. J. Deotale; Buildings and Communications, Food and Civil Supplies, W. A. Nayak.

# Sachivalaya, Bombay 32 GENERAL ADMINISTRATION DEPARTMENT

Chief Secretary, B. B. Paymaster, I.C.S.; Commissioner (Administrative Reorganisation), M. N. Heble; Director of Resettlement of Project-affected persons, and Secretary, G. A. M. W. Desai; Additional Development Commissioner and Secretary, N. G. Abhyankar; Secretary, G. A. Sharma.

#### OTHER DEPARTMENTS

Secretaries, Home Department, L. G. Rajwade, I.C.S., Jasjit Singh, I.c.s.; Secretary, Finance Department, V. M. Joshi, I.c.s.; Director of Accts. & Treasuries & Addl. Secretary, D. Ramachandra Rao; Secretary, Buildings & Communications Department, Nizamuddin Ahmed; Secretary, Urban Development, Public Health & Housing Department, H. Nanjundiah; Dir. of Mun. Adm. & Secy., S. G. Suradkar; Secretaries, Agriculture & Cooperation Department, S. E. Sukthankar, S. B. Kazi; Secretaries, Revenue & Forest Department, A. S. Naik, I.C.S., V. Subramaniam; Secretary, Rural Development Department, A. U. Shaikh; Secretary, Industry & Labour Department, S. N. A. Razvi; Secretary, Food & Civil Supplies Department, S. B. Kulkarni; Directors of Civil Supplies, M. A. Deshmukh, V. T. Chari; Secretary, Irrigation & Power Deptt., B. A. Kulkarni; Secretary, Law and Judiciary Deptt. and Remembrancer of Legal Affairs, B. P. Dalal; Addl. Secretary, S. B. Palekar; Secretary, Education, Sports & Social Welfare Department, R. G. Salvi.

#### HEADS OF DEPARTMENTS

Vigilance Commissioner, Vacant; (Office: Old Secretariat, Bombay 32); Accommodation Controller, H. S. Nargund; Director of Education (Poona), C. G. Sahasrabuddhe (Offg.); Director of Public Health (Poona), Dr. V. N. Rao; Director of Agriculture (Poona), Dr. K. G. Joshi; Director of Fisheries (Bombay), Dr. C. V. Kulkarni; Director of Animal Husbandry, Poona, S. S. Tinaikar; Settlement Commissioner & Director of Land Records & Inspector-General of Registration (Poona), S. M. Kamruddin, I.A.S.; Registrar of Firms (Bombay), R. S. Barve; Chief Port Officer (Bombay), V. V. Jawadekar; Chief Conservator of Forests (Poona), S. Buit; Director of Ayurved (Bombay), Vaidya R. D. Jaiswal; Charity Commissioner, C. P. Godsay; Director of Technical Edn., Prof. G. V. Sapre; Inspector-General of Prisons, Poona, L. T. Blake; Director of Prohibition & Excise (Old Custom House, Bombay 1), P. M. Shahane; Director of Drugs Control (Manekji Wadia Bldg., 127, M. Gandhi Road, Bombay 1), M. K. Rangnekar; Commissioner of Labour and Director of Employment (Commerce Centre, 6th & 7th floors, Tardeo, Bombay 34), D. G. Kale; Chairman, Maharashtra State Board of Secondary Education (Shivajinagar, Poona 10), V. A. Apte (Offg.); Commissioner of Sales Tax

(Vikrikar, 7th floor, Mazagaon, Bombay 10), H. B. Munshi; Administrator, Maharashtra Housing Board (Kala Nagar, Bandra, Bombay 50), B. A. Kulkarni; Housing Commissioner and Secretary, J. N. Mulla; Commissioner for Co-operation and Registrar of Co-operatives (Poona 1), R. A. Zubairy; Divisional Commissioners, R. C. Joshi, I.C.S. (Bombay Dn.), M. V. Deo (Poona Dn.), L. S. Sundara Rajan (Aurangabad Dn.), D. H. Deshmukh (Nagpur Dn.).

#### **BOMBAY PORT TRUST**

Shoorji Vallabdas Marg, Bombay.

Chairman, L. M. Nadkarni; General Manager, Govind H. Sheth; Officer on Special Duty, P. R. Subramaniam; Secretary, S. D. Chittar.

## HIGH COURT

Fort, Bombay 1.

Chief Justice, S. P. Kotval; Puisne Judges, N. A. Mody, K. K. Desai, M. G. Chitale, Y. V. Chandrachud, D. G. Palekar, R. M. Kantawala, V. G. Wagle, V. D. Tulzapurkar, B. N. Deshmukh, D. B. Padhye, J. R. Vimadalal, V. S. Deshpande, N. P. Nathwani, J. L. Nain, D. P. Madon, M. N. Chandurkar, D. G. Gatne, M. S. Apte, R. R. Bhole, G. N. Vaidya, N. D. Kamat, S. B. Bhasme, M. H. Kama, S. K. Desai.

Registrar, P. S. Malvankar; Advocate-General, S. M. Seervai; Sheriff of Bombay, Vijay Merchant; Dy. Sheriff of Bombay, D. R. Motafram.

# OFFICE OF THE INSPECTOR-GENERAL OF POLICE

Old Secretariat Bldg., II Floor, Bombay 1.

Inspector-General of Police, A. G. Rajadhyaksha, I.P.; Assistant Inspectors-General of Police, M. G. Khatre, I.P.S., H. C. Almeida, I.P.S.; R. Balakrishnan, I.P.S., E. S. Modak.

# GREATER BOMBAY POLICE FORCE

Dadabhoy Naoroji Road, Opp. Jyotiba Phule Market, Bombay 1.

Commissioner of Police, S. G. Pradhan; Dy. Commissioners of Police, S. Ramamurthi, J. F. Ribeiro, N. S. Karkare, S. V. Chavan, S. D. Rege, R. S. Kulkarni, D. S. Soman, J. T. F. Gurr, S. V. Tankhiwale, D. D. Raje, G. M. Nadkarni, S. S. Jog, G. N. Kakeri.

# DIRECTORATE OF PUBLICITY

Sachivalaya, Bombay 32.

Director of Publicity and Tourism, Y. H. Pitke; Dy. Director of Publicity (News), D. R. Samant; Dy. Director of Publicity (Public Relations), R. V. Pophale; Dy. Director of Publicity (Publication), V. G. Deshmukh; Dy. Director of Publicity (Films), Kumarsen Samarth; Dy. Director of Publicity (Exhibition), A. K. Kanitkar; Director (Tourism), A. V. Gokak.

# MAHARASHTRA STATE ROAD TRANSPORT CORPORATION

Maharashtra Vahatuk Bhavan, Bellasis Road, Bombay 8.

Chairman, R. G. Saraiya; Vice-Chairman, N. V. Sunderaraman, General Manager, P. G. Salvi; Chief Accounts Officer, P. C. Roy; Dy. General Manager (Mech. Engg.), N. G. Pandit; Dy. General Manager, (I.O. & M.), V. R. Miranda; Dy. General Manager (Accounts), A. S. Mani; Dy. General Manager (Stores & Purchase), M. K. Mantri; Divisional Controller (Admn.), V. D. Shirke; Public Relations Officer, D. M. Nadkarni.

MANIPUR 501

### BUREAU OF ECONOMICS AND STATISTICS

D. D. Bldg., Old Custom House, Bombay 1.

Director, S. M. Vidwans; Joint Directors, S. P. Gothoskar and D. R. Deoras.

# OFFICE OF THE DIRECTOR, GREATER BOMBAY MILK SCHEME

Wakefield House, Ballard Estate, Bombay 1.

Director, Greater Bombay Milk Scheme, Y. V. Salpekar; Public Relations Officer, M. G. Pathak.

### WORLI DAIRY, WORLI, BOMBAY-18.

Controller, Milk Transport, D. R. Engineer; General Manager, Aarey and Worli Dairies, N. S. Dave; Controller, Procurement and Distribution, V. R. Patkar.

AAREY MILK COLONY, AAREY, BOMBAY-65.
Chief Executive Officer (Colony), K. G. Bhide.

#### PUBLIC SERVICE COMMISSION

Bank of India Building, Mahatma Gandhi Road, Bombay 1.

Chairman, Dr. D. Y. Gohokar; Secretary, Y. S. Kulkarni.

### GOVT. OF INDIA TOURIST OFFICE

123, Queen's Road, Bombay 20.

Director, Mrs. S. Jagannathan; Asstt. Directors, K. P. Rao, G. J. Kamble, N. Malvi, R. Rangachari.

# PRESS INFORMATION BUREAU

United India Bldg., Sir Pherozeshah Mehta Road, Fort, Bombay 1.

Deputy Principal Information Officer, P. N. Khosla; Information Officer, T. K. Jhuremalani.

# MUNICIPAL CORPORATION OF GREATER BOMBAY

Municipal Offices, Fort, Bombay 1.

Mayor, Dr. S. G. Patel; Municipal Commissioner for Greater Bombay, Dr. M. N. Desai; Dy. Municipal Commissioners, S. M. Y. Sastry, C. Soares, V. C. Vaidya, R. G. Gulgule, P. C. Pandya; City Engineer, V. D. Desai; Hydraulic Engineer, Y. H. Kamath; Executive Health Officer, Dr. D. V. Parulekar; Assessor & Collector, B. H. Prabhavalkar; Labour Officer, G. S. Saudagar; Public Relations Officer & Editor, "Bombay Civic Journal", N. A. Mistri; Municipal Secretary, A. J. Avsare; Educational Officer, Dr. Smt. Madhuri R. Shah.

### **B.E.S.T. UNDERTAKING**

BEST House, Bombay 1.

General Manager, G. H. Lalvani; Asstt. Gen. Manager, K. N. Rao; Secretary, K. P. Dhuru; Chief Traffic Manager, F. P. Fernandes; Public Relations Officer, S. R. Paranjpe.

#### CENTRAL RAILWAY

Hqrs. Office :- Victoria Terminus, Bombay 1.

General Manager, B. S. D. Baliga; Senior Deputy General Manager, H. K. D. Capoor; Deputy General Manager (General), K. V. Pandit; Chief Public Relations Officer, H. V. Samuel; Commercial Publicity Officer, H. K. Bakhru; Statistical Officer, Mohan Abichandani; Compilation Officer, P. R. Vallabhdas; Chief Personnel Officer, K. Janakiraman; Chief Engineer, G. N. Bhattacharya; Chief Engineer, (Construction), S. Rodrigues; Chief Engineer, (S & C), S. L. Gupta; Chief Operating Superintendent, P. R. Pusalkar; Chief Commercial Superintendent, S. Rajagopalan; Chief Mechanical Engineer, P. N. Khanna; Chief Signal & Tele-Communication Engineer, M. M. Agerwala; Chief Electrical Engineer, V. S. T. Udeshie; Financial Adviser & Chief Accounts Officer, K. T. Mirchandani; Chief Security Officer, H. S. Kohli, I.P.S.

#### WESTERN RAILWAY

### HEADQUARTERS OFFICE, CHURCHGATE, BOMBAY 20

General Manager, B. M. Kaul; Senior Deputy General Manager, S. S. Surana; Dy. General Manager (General), J. S. Khergamvala; Chief Public Relations Officer, Kartar Singh; Statistical Officer, A. Araujo; Law Officer, M. V. Basarkar; Chief Personnel Officer, V. Giridharadas; Financial Adviser & Chief Accounts Officer, G. F. Penn Anthony; Chief Engineer, M. J. Patel; Chief Engineer (Survey & Construction), T. R. Vaccha; Chief Electrical Engineer, N. Ramamurthy; Chief Mechanical Engineer, M. M. Bam; Chief Operating Superintendent, R. Sampath; Chief Commercial Superintendent, R. T. Shahani; Chief Security Officer, R. B. K. Warrier; Chief Signal & Telecommunication Engineer (M), V. Parthasarathy; Chief Signal & Telecommunication Engineer (Const.), V. U. Shenai.

# RAILWAY SERVICE COMMISSION, BOMBAY

(Churchgate Station Bldg., 1st Floor, Bombay 20)

Chairman, G. D. Tapase; Member, P. B. Jain; Asstt. Secretary, R. Natarajan.

# MANIPUR

CAPITAL: Imphal.

Area: 8,628 sq. miles; Population (1966): 9,40,876; Density: 109; Sex Ratio: 1,037 females per 1,000 males; Literacy: 30·04 per cent. Strength of Legislative Assembly: 33 including 3 nominated members. The Legislative Assembly was dissolved on 16th October 1969 and Presidential rule was introduced for a second time.

Manipur has been divided into 5 districts. Manipur bounded on the east and south by Burma and on the north and west by the Naga Hills and the Cachar District of Assam, is a highly strategic territory on the eastern frontier of India. Two land routes from Burma pass through its territory.

Seven hundred square miles of the Territory form a central valley, 2,600 feet above sea-level, which is shut in on all sides by extensive hill tracts at places over 6,000 feet, covering the rest of the Territory. The climate varies from temperate in the valley to cold in the high hills. The rainfall on the average is 65 inches in a year.

The main population is "Meiteis" inhabiting the valley with some 40 tribes and sub-tribes known by the generic names of Nagas and Kukis. Though a number of different dialects are spoken in the Territory, Manipuri and English are the official languages. The people are carefree and healthy, with a passion for religious festivals involving community dances in which both sexes join.

#### AGRICULTURE

The soil is fertile. Rice is the principal crop.

Classification of Land area, 1966-67 (Figures in thousand hectares): Geographical area 2,235; Forests 602; Area not available for cultivation 1,407; Land under miscellaneous trees 24; Current fallows 1; Net area sown 165; Cropped area 174; Area sown more than once 9; Irrigated area 68.

Foodgrains (area and production in thousand hectares and thousand tonnes respectively for 1968-69): Rice 174.0; 246.0; Maize 5.0; 5.0; Total 179.0; 251.0.

Handloom weaving is a popular industry throughout the Territory and Manipuri cloth of various picturesque

and indigenous designs is in demand throughout India and even outside.

There are 13 colleges, 123 high and higher secondary schools, 302 middle/senior basic schools, and 2,120 primary and junior basic schools. The total number of students during the year 1968-69 was 2,16,200 including 60,100 below six years of age.

There are 13 hospitals, 59 dispensaries, 12 primary Health Centres, 38 Sub-Centres, one T. B. Clinic, 4 Leprosy Sub-Centres, one V. D. Clinic, two Dental Clinics, one M.C.W. Centre, 12 F.W.P. Centres, one B. C. G. Programme centre and two N. M. E. P. Units.

### ADMINISTRATIVE PERSONNEL

Imphal

Lt. Governor, D. R. Kohli.

Chief Secretary, D. G. Bhave; Judicial Commissioner, R. S. Bindra; Publicity Officer, Ksh. Dhananjoy Singh;

Director, Medical & Health Services, Dr. S. C. Sen; Registrar, Co-op. Societies, Indrakumar Singh; Secretary (Finance), Kalyan Sundaram.

# MYSORE STATE

Area: 192,204 sq. kms. (74,210 sq. miles).

Population: (1961 census): 23,586,772 (Rural: 18,320,279; Urban: 5,266,493); (males 12,040,923; females 11,545,849). Percentage increase 1951-61: 21·57. Sex ratio: 959 females for 1,000 males. Density: 123 per sq. km. Literacy: 25·4 per cent. Population 5·4 per cent of the whole of India and area 6·5 per cent of the whole of India. (See "Population" article for more details.)

Capital: Bangalore.

The State is divided into four Divisions for administrative purposes. There are 19 Districts, 174 Talukas, 231 towns and 26,377 inhabited villages.

#### **AGRICULTURE**

Geographical area and classification (1966–67) in thousand hectares: 19,176 (Geo. area); Forests 2,701; Area put to non-agricultural use 917; Barren and unculturable land 883; Permanent pastures and other grazing lands 1,653; Land under miscellaneous trees 364; Culturable waste 650; Fallow lands 2,312; Net area sown 10,014; Cropped area 10,467; Area sown more than once 453; Net irrigated area 1,022; Gross irrigated area 1,187.

Foodgrains (1968–69): Area and production in thousand hectares & thousand tonnes respectively: Rice 1,134·8; 1,796·9; Jowar 2,665·1; 1,438·5; Bajra 772·8; 166·7; Maize  $40\cdot0$ ;  $75\cdot0$ ; Ragi  $811\cdot5$ ;  $605\cdot9$ ; Small millets  $348\cdot9$ ;  $90\cdot9$ ; Wheat  $304\cdot7$ ;  $133\cdot4$ ; Barley  $4\cdot3$ ;  $2\cdot8$ ; Total cereals  $6,082\cdot1$ ;  $4,310\cdot1$ ; Gram  $204\cdot3$ ;  $90\cdot1$ ; Tur  $299\cdot3$ ;  $106\cdot2$ ; Other pulses  $642\cdot9$ ;  $158\cdot8$ . Total pulses  $1,146\cdot5$ ;  $335\cdot1$ ; Total foodgrains  $7,228\cdot6$ ;  $4,665\cdot2$ .

Major Oilseeds: Groundnut  $801 \cdot 5$ ;  $380 \cdot 7$ ; Castor seed  $30 \cdot 0$ ;  $14 \cdot 7$ ; Sesamum  $62 \cdot 3$ ;  $17 \cdot 0$ ; Rapeseed & Mustard  $2 \cdot 1$ ;  $0 \cdot 6$ ; Linseed  $50 \cdot 6$ ;  $14 \cdot 8$ ; Total oilseeds  $946 \cdot 5$ ;  $427 \cdot 8$ .

Others: Cotton 1,037·3; 416·1; (Production of Cottonseeds and kapas 149·8; 224·7); Sannhemp 5·7; 4·4; Mesta 26·5; 41·9; Tobacco 29·5; 14·3; Niger seed 22·2; 4·4; Safflower 132·0; 21·4; Turmeric 1·1; 1·8; Potato 8·7; 31·4; Coconut; 106·1; 446·0\*; Arecanut 34·8\*; 52·7\*@; Areca Catechu (Production) 52·7\*. The important cereal crops of the State are rice, jowar, ragi, bajra and wheat. Important cash crops include coffee, tea, cardamom, pepper, rubber, cotton, tobacco, oilseeds, sugarcane, arecanut, eccoanut, cashewnut and castor. Among the States, Mysore ranks first in respect of the production of coffee, ragi, mulberry and cardamom. Improved and "package" agricultural practices have come into vogue, particularly in Mandya. Hybrid maize, bajra and jowar and high yielding rice and ragi, wheat, cotton, groundnut and sugarcane have been introduced.

Soils: Laterite and lateritic soils, red loams, red sandy loams, black soils and alluvial soils.

Agricultural Education: Agricultural Research Stations 45, Agricultural University 1; Agricultural Colleges 2; Agricultural Schools 7; Gramsevak Training Centres 5; and Seed Farms 100.

Vegetables and Fruits: The area under vegetables was increased during the Third Plan period from 1,40,000 acres to 1,55,000 acres.

Horticulture: The annual output of the various nurseries will be 4 lakh fruit plants. A master plan costing Rs. 10 lakhs has been prepared for the development of horticulture. In execution the plan encourages intensive vegetable and quick growing fruits in Bangalore and Mysore.

Cashew: An area of about 90,000 acres is under cashew in the private sector. The Forest Department has brought 10,000 acres under cashew cultivation.

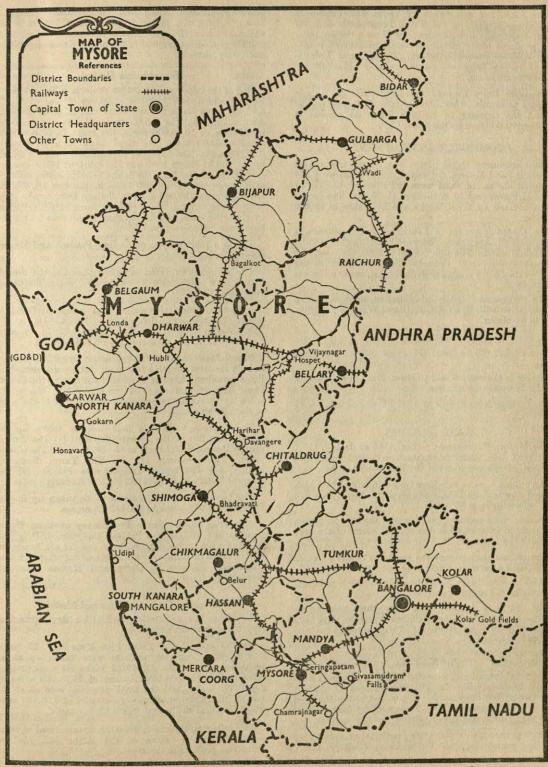
Cardamom: Cardamom occupies an estimated area of about 49,000 acres. The estimated production is about 1,000 tons which is nearly 45 per cent of the national production.

Arecanut: The production is about 25,000 tons of nut which is nearly 27 per cent of the annual production in India.

Rubber: Plantations extend over 2,000 acres, cinchona plantations over 44 acres and eucalyptus over 20,125 acres.

Animal Husbandry (1966), (Figures in thousands): Cattle 9,685; Buffaloes 2,946; Sheep 4,748; Goats 2,784; Horses and ponies 65; Poultry 8,277.

<sup>†</sup> Production of lint (thousand bales of 180 kgs. each). processed nuts without husk.



The State has a network of about 659 Veterinary Institutions comprising 174 Taluk Dispensaries and 467 Rural Veterinary Dispensaries. The Mysore Serum Institute produces biologicals to combat and prevent contagious diseases among livestock. Two Clinical Laboratories—one at Belgaum and the other at Mangalore—are also functioning.

Bangalore Dairy Project: Aided by UNICEF, this is designed to handle 50,000 litres of milk with provision to expand the capacity to 1,50,000 litres. At present it supplies 30,000 litres to Bangalore City.

#### COMMUNITY DEVELOPMENT

The Community Development Programme now covers the entire rural Mysore. On Jan. 1, 1968, there were 268 delimited blocks. Of them were 122 Stage I blocks, 87 Stage II blocks and 50 Post-Stage II blocks. The population covered by these blocks was 217 lakhs in 26,400 villages.

The three-tier system of Panchayat Raj institution is being set up in the State. There are 7,452 panchayats and 174 taluk boards. Towards the end of 1969, there were 19 District Development Councils. These advisory bodies will be replaced by elected Zilla Parishads, under a Statute on the anvil.

The Programme of Applied Nutrition, implemented in collaboration with UNICEF, FAO and WHO is in operation in 11 blocks.

#### FOREST

Area: 26,92,000 hectares (18.4 per cent of the State area).

Timber is the main forest produce. Next in importance are sandalwood and bamboo.

Net revenue from forests in 1967-68 was about Rs. 11 crores.

#### LAND REFORMS

The Mysore Government promulgated on Jan. 5, 1970, the Mysore Land Reforms (Amendment) Ordinance 1970, for speedy implementation of the Land Reforms Act.

The ordinance came into force from January 15 by which munsiff courts have been empowered to deal with cases filed before the land tribunals.

The land reforms cases, pending with the land tribunals, would stand transferred to the munsiff courts of the area to which the cases pertain, after January 15.

The ordinance empowers the courts to decide all cases
—"whether a person is a tenant or not."

Land measurements, would be given in metric measurement under the ordinance.

The executive functions including those relating to assessment of ceiling on land holdings of persons, have been taken away from the tribunals and transferred to revenue officers by the ordinance.

#### IRRIGATION

The total irrigational potential in Mysore State is 3.34 million hectares against a net irrigated area of slightly over one million hectares. 33.12 per cent of the irrigated area is served by canals, 36.33 per cent by tanks, 19.90 per cent by wells and the remaining by other sources.

Among the major irrigation projects completed or nearing completion are Tungabhadra (Bellary Dist.),

Bhadra (Shimoga Dist.) and Ghataprabha (Belgaum Dist.). Among the major projects under execution are upper Krishna (Bijapur Dist.), Malaprabha (Dharwar) and many medium projects in the cauvery basin in Hassan and Coorg districts.

## Tungabhadra Project

One of the important irrigation projects is Tungabhadra Project which will irrigate 12,00,000 acres, of which 8,70,000 acres lie in Mysore State and 3,30,000 acres in Andhra Pradesh. The left bank canal has a gross command area of 10,80,000 acres, the right bank low level canal 8,60,000 acres, the right bank high level canal 5,00,000 acres. The expected expenditure on these canals by the end of March 1969 was Rs. 3,454·61 lakhs, leaving a spillover of Rs. 1,248·39 lakhs. The potential created in Mysore State is 5,80,000 acres in Raichur Dt. by the left bank canal, 92,345 acres in Bellary Dist. by the right bank low-level canal and two lakh acres in Bellary Dist. by the right bank high level canal. In all four lakh acres have been intensively developed.

This is a joint project of Andhra Pradesh and Mysore costing Rs. 108 crores.

The project is expected to be completed in the Fourth Plan. (For more details see under main article on Irrigation.)

Irrigation potential created and utilised (1968) in acres: Tungabhadra (left bank) 5,38,437—4,10,083; Tungabhadra (right bank) 92,353—74,297; Bhadra 2,04,900—1,64,684; Ghataprabha 95,398—48,154.

Fourth Plan: As many as ten major irrigation projects and 26 medium projects taken up during the preceding Plans period will have to be carried out during the Fourth Plan. The amount required for completing the works taken up during the preceding Plans would be of the order of Rs. 188-46 crores.

The important projects that will be taken up for construction during the Fourth Plan are: (1) The Tungabhadra Project High Level Canal—Stage II, (2) The Ghataprabha Project—Stage III, (3) The Tunga Reservoir Project, (4) The Upper Tungabhadra Project, (5) The Yagachi Reservoir Project and (6) The Karanja Project.

The total cost of the projects to be taken up in the Fourth Plan will work to Rs. 142.98 crores.

New Irrigation Projects: Preliminary work on Upper Krishna and Malaprabha Projects has started. It is proposed to start preliminary works in respect of Chandrampalli Project in Gulbarga District and of Harangi and Hemavathi Projects in Coorg and Hassan Districts, respectively.

# Irrigation Project-Major and Medium

The State has excellent potential for development of major and medium irrigation.

At the end of the Third Five Year Plan, 36 major and medium irrigation projects were taken up at an estimated cost of Rs. 27,049.52 lakhs for construction. These projects have a total Ayacut of 25,98,068 acres on full development and the total potential created at the end of Third Plan period was of the order of 9,03,167 acres and the actual utilisation was 6,88,368 acres.

The following statement gives the financial and physical achievements of some of the Major and Medium Irrigation projects in the State.

# Major and Medium Irrigation Projects

Name of the Project.		Location.	When started.	When to be completed.	Area to be irrigated in Acres.	Total cost in Lakhs.	Estimated rise in output of food- grains after com- pletion in Tons.
Hathikoni		Gulbarga Dist.	1959	1970-71	5,300	57.84	800
Dharma Project		N. K. Dist.	1958	1970-71	3,200	95.48	2,400
Kabini		Mysore Dist.	1958-59	End of IV Plan.	1,26,000	240.00	N.A.
Lakshmanathirtha ject.	Pro-	Coorg Dist.	1958	1969-70	7,000	161-61	1,400
Harangi Project	••	Coorg Dist.	Not started	Spillover to V Plan.	81,000	1,105 · 84	16,200
Upper Krishna Project (Stage 1)		Bijapur Dist.		—do.—	6,00,000	5,820.00	1,20,000
Malaprabha Project		Belgaum Dist.	1960-61	1970-71	3,00,000	2,000.00	40,000
Hemvathi		Hassan Dist.		Spillover to V Plan.	33,000	390.00	6,600
Kambadakada		Coorg Dist.		-do	22,500	190.00	4,500

## CO-OPERATION

The structure of co-operative credit in the State consists of three tiers: the primary, the intermediate and the apex. At the apex level, there is the Mysore State Co-operative Apex Bank which has been reconstituted as a federal body and whose jurisdiction is extended to the whole of the State. The Central Land Mortgage Bank has been reorganised and reconstituted with the entire State as its jurisdiction.

There are 19,000 Co-operative Societies with a membership of 50 lakhs. Their total working capital is Rs. 20 lakhs.

Number of Agricultural Credit Societies: 8,800; Number of District Co-operative Banks: 19; Number of Land Development Banks: 155; Number of Primary Marketing Societies: 245; Number of Housing Co-operative Societies: 639; Number of Coir Co-operative Societies: 25. No. of regulated markets: 200; No. of Cooperative spinning mills: 6.

# Co-operative Sugar Factories

Nine Co-operative Sugar Factories are in existence in the State of which 4 have gone into production and 5 have secured industrial licence.

### Co-operative Farming

There are 310 farming societies with a membership of 8,597 and paid-up share capital of Rs. 10.09 lakhs, commanding an area of 52,869 acres.

### Consumers' Co-operatives

There are at present 15 wholesale stores and 780 primary stores with an aggregate membership of 80,000 and share capital of Rs. 60 lakhs.

The Third Plan brought about sixty per cent of the agricultural population under the co-operative fold. Two thousand more service co-operatives, 50 primary land mortgage banks, 44 processing units and 900 godowns were started and 160 marketing societies organised.

#### ELECTRIC POWER

#### Major Hydro-Electric Projects

Name of project, location, installed capacity and cost in crores of Rs. respectively: Sharavathi Valley Project (15 miles from Talaguppa Rly. Station near Jog (Linganamakhi); 356,400 Kw.(a); 56 (Revised) (I Stage); Bhadra Hydro-Electric Project (18 miles from Bhadravathi

(Lakkavalli); 33,200 Kw.(b); 3.8; Tungabhadra Hydro-Electric Project Right Bank (4 miles from Hospect Rly. Station); 72,000 Kw.(c); 144 (Mysore's share); Tungabhadra Hydro-Electric Project Left Bank(e); (3 miles from Munirabad Rly. Station (Mallapuram); 27,000 Kw.(d); 6.042.

Estimated rise in output after completion is about 1,466 million units over the 1956-57 figures. (a) 891,000 Kw. ultimate capacity. (b) 40,400 Kw. ultimate capacity. (c) This is a joint venture of Andhra Pradesh and Mysere, Mysere's share is 14,400 Kws. (20 per cent of the generated power.)

Two units of 9,000 Kw. installed and two more units being installed at the dam and canal power house. (d) Ultimate capacity 36,000 Kw. (e) Shivasamudram (42,000 Kw.), Shimsa (17,200 Kw.), both Mandya Dist., and Jog (1,20,000 Kw.) in Shimoga Dist., are the other sources. Some 10,000 Kw. of power is also generated by gas turbines.

Names of power stations (besides the ones completed recently) in operation, their location and installed capacity:

Name	Installed capacity (Kw.)	Location		
Sivasamudram	42,000	28 miles from Maddur Rly. Stn. towards South East.		
Shimshapura	17,200	28 miles from Maddur Rly. Stn. towards South East.		
Jog (M.G.H.E. Works)	120,000	12½ miles from Talaguppa Rly. Stn. towards North.		

Villages electrified:—Out of 26,608 towns and villages, 7,000 have been electrified till the end of 1968.

No. of irrigation pumps serviced: 71,189.

Diesel Stations showing within brackets the approximate installed capacity in Kw. and units generated in millions in 1967 respectively: Mercara (414; 0.705); Somwarpet (150; 0.146); Virajpet (240; 0.242); Shorapur (100; 0.065); Gourikoppal (80; 0.111); Raichur (1,240; 2.916); Gulbarga (826; 1.944); Yadgir (400; 0.537); Bailhongal (200; 0.197); Guledgud (567; 1.027); Hukeri (500; 0.975); Ilkar (200; 0.322); Chittapur (50; 0.047); Humnabad (200; 0.055); Aland (100; 0.015); Kushtagi (50; 0.001).

The following are some of the other diesel stations with the installed capacity in Kw.:—Udipi 110 Kw; Karkala 32 Kw; Mangalore 1,017 Kw.

#### POWER

Mysore's current generating capacity is about 6,20,000 Kw. Surplus power is being sold to Goa, Tamil Nadu, Andhra Pradesh and Kerala.

Sharavathi Valley Project:—The Sharavathi Valley Project now under execution is the biggest and one of the most economical projects in the State and one of the few economical projects in India. The River Sharavathi though only 82 miles in length has a tremendous power potential amounting to about one million kilo watts. In this project four generating units each of a capacity 89,100 Kw. are functioning and six more are proposed.

Bhadra Hydro-Electric Project:—The Bhadra Hydro-Electric Project is mainly an irrigation project and the power generation here is only incidental. The installed capacity of this station is 33,200 KW comprising 2 units of 12,000 KW each in the river bed station, one unit of 2,000 KW in the left bank station and one unit of 7,200 KW in the right bank station.

Tungabhadra Hydro-Electric Project (Left Bank):— This project contemplates installation of 3 units each of 9,000 KW and transmission of power by means of 110 KV transmission line from Munirabad to Shahabad. All three units of 9,000 KW each have been commissioned.

Kalinadi Hydro-Electric Project:—Provisions have been made for carrying out the preliminary works on the Kalinadi scheme during the IV Plan period. This project is to produce more than a million Kw of power.

With the proposed expansion of the existing projects and implementation of new projects, Mysore's generating capacity is expected to go up to 1154.8 MW. by the end of the Fourth Plan.

Mysore State Electricity Board:—It is proposed in the Fourth Plan to construct 4,125 KW of transmission lines and sub transmission lines, erect 94 sub-stations, electrify 5,000 villages and supply power to one lakh irrigation pumpsets. The outlay for these works will be Rs. 6,200 lakhs.

Besides meeting its own demand, Mysore is now in a position to supply power to neighbouring States — Andhra Pradesh, Tamil Nadu, Kerala and Goa—on a temporary basis. Mysore has also offered power to Maharashtra.

#### **INDUSTRIES**

Production in some of the important industries 1967-68:-

Industry	Unit	1967-68	
Pig Iron and		NIN TARRET	
Ferro alloys	M. Tons	97.000	
Semifinished in-		01,000	
got steels		100,000	
Finished Steel		68,000	
Paper		59,000	
Cement	'000 ,,	970	
Sandalwood oil	'000 kgs.	100	

Main large-scale industries in the State with location: Textiles (Bangalore, Devangere, Bellary, Mysore, Hubli, Gadag, Gokak, Gulbarga); Engineering (Bangalore, Harihar); Mineral and Metal (Bangalore, Bhadravati, Bellary, Kolar, Shimoga); Food, drink and tobacco (Bangalore); Chemicals, dyes, etc. (Bangalore, Mysore); Paper and printing (Bhadravati, Nanjangud, Dandeli,

Mandya and Bangalore); Process relating to wood, stone and glass (all over the State); Process connected with hides and skins (Bangalore); Gins and presses (Devangere, Belgaum, Bellary, Dharwar, Gulbarga & Raichur); Fisheries (Mangalore, Karwar).

Mysore occupies the eighth place among the States in industrial advancement.

The textile industry is a major industry in Mysore with 27 Cotton textile mills and spindlage of 6,40,000.

No. of Sugar factories 9, Production 2,00,000 tonnes; No. of Cement factories 5, Production two million tonnes; No. of fertilizer factories 2, installed capacity one lakh tonne of super phosphate; Total value of minerals produced in 1967; Rs. 8·40 crores. Minerals include gold, silver, iron, manganese, bauxite, limestone and asbestos.

Mysore is a major silk producing state, accounting for nearly two lakh kgs. of silk per annum valued at Rs. 15 crores.

State Govt. Industrial Undertakings: Central Industrial Workshop, Bangalore; Govt. Central Workshop, Mercara; Govt. Electric Factory, Bangalore; Jai Hind Saw Mills, Dandoli; Mysore Implements Factory, Hassan; Govt. Porcelain Factory, Bangalore; Govt. Soap Factory, Bangalore; Govt. Sandalwood Factory, Mysore and Shimoga; Govt. Spun Silk Mills, Chennapatna; Govt. Silk Weaving Factory, Chennapatna; Mysore Silk Filature, Kanakapura, Kollegal and Mysore: Mysore Chrome Tanning Co., Bangalore; Hutti Gold Mines, Hutti; Mysore Lac and Paint Works Ltd., Mysore; Radio and Electric Manufacturing Co. Ltd., Bangalore; Mysore Sugar Co., Mandya. New Govt. Electric Factory Ltd., Bangalore.

Central Govt. Undertakings: Bharat Earth Movers Ltd., Bangalore; Bharat Electronics Ltd., Bangalore; Hindustan Machine Tools Ltd., Bangalore; Kolar Gold Mining Undertakings, Kolar Gold Fields; Hindustan Aeronautics Ltd., Bangalore; Indian Telephone Industries Ltd., Bangalore.

Private Limited Companies owned by Government: Mysore Iron and Steel Ltd., Bhadrawati, Mysore State Industrial Investment and Development Corporation Ltd., Bangalore, Mysore State Handicrafts Development Corporation Ltd., Bangalore.

Inter-State Govt. Undertakings: Tungabhadra Steel Products Ltd., Tungabhadra Dam.

A watch factory set up at Bangalore in the public sector (as an adjunct to Hindustan Machine Tools) is designed to manufacture about half a million full lever watches annually. The Bangalore factory has the collaboration of the Japanese firm, Citizen Watch Company.

No. of Industrial Estates, 8. (Bangalore, Ramanagaram, Mysore, Hubli, Harihar, Belgaum, Gulbarga and Mangalore.)

A letter of intent has been granted to Indian Aluminium Co., Calcutta, to set up a plant to manufacture aluminium ingots near Belgaum with an initial capacity of 30,000 tonnes per annum. A fertilizer plant in the private sector at Mangalore is in the offing.

#### LABOUR

No. of registered factories during 1967-68: 3,349; No. of industrial workers: 6,00,000; No. of plantation labour 1,17,000; No. of Commercial establishments: 1,25,571; No. of workers in establishments: 1,56,432; No. of Trade Unions: 586; Trade Union membership: 1,68,712.

Labour Welfare Centres: Ten Labour Welfare Centres are functioning in various parts of the State to extend labour welfare activities and provide recreation to the workers.

Banking Facilities to the Industrial Workers: With a view to affording relief to the industrial workers indebted to money-lenders, a scheme to provide credit facilities at reasonable rates of interest on co-operative basis was taken up and it is now under the charge of a co-operative officer deputed by the Co-operative Department.

Apprenticeship Act: Under this scheme 2,000 candidates were receiving training in 1968.

Employment Exchanges: No. of employment exchanges: 20; No. of registration 2 lakhs; No. of Craft training Centres: 15; No. of students passed: 1,500 (1967).

There is a special employment exchange at Bangalore for the physically handicapped and another to serve the needs of University students/graduates.

Factories and Boilers: There are 3,000 factories on the registers of the Department.

The Employees' State Insurance Scheme: The Scheme is now in force in Mysore, Mangalore, Hubli, Gulbarga, Davangere, Gokak, Dandeli and Belgaum. The total number of beneficiaries so far is over 200,000 family units.

The Rural Manpower Utilisation Works: The main schemes undertaken in this programme are Minor Irrigation, Soil Conservation, Afforestation, Development, Repairs to Field Channels and Road Works.

#### HOUSING

Amount drawn by the Mysore Housing Board (since 1955): Rs. 1,735·45 lakhs; Number of houses built (General): 22,370.

Low Income Group Housing: No. of houses built: 8,328.

Subsidised Rental Housing: No. of houses built: 1,005.

Middle Income Group Housing: No. of houses built: 1,118.

Subsidised Industrial Housing (State Sector): No. of houses built: 6,720.

Subsidised Industrial Housing (Employees Sector): No. of houses built: 5,199.

The Mysore State Housing Corporation with a membership of 128 and paid-up share capital of Rs. 6.6 lakhs functions as the apex housing institution.

#### SMALL-SCALE INDUSTRIES

Important cottage industries showing their centres in Mysore State within brackets: Lacquerware (Chennapatna, Gokak, Nelamangala, Chikmagalur and Shimoga); Sandalwood carving (Sagar, Sorab, Mysore); Ivory and Inlay works (Sagar, Sorab, Mysore); Brass works (Nelamangala); Rattan work (Mysore, Chikmagalur, Shimoga and Sagar); Bidriware (Bidar); Glass Bangle making (Yeshwantpur and Ghodgeri); Mat weaving (Kengeri, Amruthur, Nagamangala, Hassan, Kumblur, Anandapuram and Hiriyur); Leather stitching (Birur, Sagar, Doddasiddavanahally, Indi, Ramdurg, Ashani, Sandatti and Karwar); Pottery (Ramanagaram, Khanapur, Madikebeedu and Krishnarajapura); Tile-making (Mangalore); Coir Industry (Mangalore, Karwar); Agarbatti (Mysore, Bangalore); Cotton Hosiery (Shahapur).

The important centres for small-scale industries are Bangalore, Belgaum, Tumkur, Hubli, Hospet, Bhadravati and Mangalore. Among the important products that have got all-India market, the following are noteworthy: Cycle Dynamo Lamps; Centre lathes; Wood working machinery; Punch presses; Ornamental lamps; Charcoal Irons; Pooja articles of non-ferrous metals. Apart from the above, the State also produces oil-engines, pressedmetalware and components for large-scale industries located in the State.

## MINERALS

Approximate annual production (1967-68): Gold: 4,000 kgs.; Silver: 300 kgs.; Iron ore: 35,00,000 tonnes; Manganese: 7,000 tonnes; Limestone: 15,00,000 tonnes; Quartz and Silica: 50,000 tonnes; Total value of mineral production: Rs. 8·40 crores (1967).

Total number of men employed: About 45,000.

Number of men employed in each mineral industry: Gold (30,000); Other minerals (15,000).

The following minerals have been located and their reserves assessed:—

- (1) Iron ore.—Iron ore deposits estimated at about 500 million tons of exportable grade have been proved in the Bababudan Hill, Chikmagalur District; near Kodachadri and Kotebore, Shimoga District; near Kalche, Kodalgadde, Sunksal, etc., North Kanara District; near Karekurchi, Habbigegudda, Janehar, Tumkur District and Vajra, Lakkihalli Bheemasamudra, etc., Chitradurga District. This is in addition to the ore reserves in the Bellary-Hospet area, where a reserve of about 1,000 million tons is assessed. The latest discovery of magnetic ore, estimated at 1,000 million tons, is at Kudremukh.
- (2) High Calcium Limestone.—Occurring between Bagalkot and Yadwad, Bijapur-Belgaum Districts have been mapped in detail and some of them have also been prospected by drilling. So far about 600 million tons of limestone are assessed. Further prospecting is under progress. The high calcium limestone deposits near Nagargali, North Kanara District and those in Hosadurga Taluk, Chitradurga District, were also mapped in detail and the reserves are assessed at 30 million tons and 50 million tons, respectively.
- (3) Fuller's Earth.—Fuller's Earth deposits suitable for refining of mineral and vegetable oils occurring near Korvi and other villages, Chincholi Taluk, Gulbarga District, have been prospected and estimated to contain about 2 million tons.
- (4) Bauxite.—The surveys conducted for Bauxite deposits in Belgaum District have revealed the occurrence of about 2 million tons of Bauxite.

Board of Mineral Development—Besides export of Iron Ore and Manganese Ore, the Board deals with the mining and sale within India of commodities like Chrome Ore, Clay, Graphite, Quartz, Feldspar, Soapstone, etc. The export is at present restricted to Iron Ore and Manganese Ore. The production of iron ore by the Board of two lakh tonnes is expected to go up to one million tonnes by 1970-71. The activities of the Board will be taken over by a Mineral Development Corporation.

Mysore Minerals Ltd. (State owned): 1967-68 marked the beginning of mining operations of this Company. Production (in tonnes) during 1968-69 is as follows: Iron ore 1,13,965; Manganese ore 29,215; China clay 1,172; Aluminous clay 9,066; Chromite 4,270; Asbestos 390.

## PUBLIC HEALTH

Mysore State has 200 hospitals, with 20,000 beds, 800 dispensaries, 6,000 registered doctors, 1,700 registered nurses, 1,750 midwives, 450 primary health units, 19 national malaria eradication programme units, one

national filaria control unit, 10 subsidiary leprosy units. 12 district medical laboratories and 300 family planning centres.

Ayurvedic hospitals 8, Ayurvedic dispensaries 500; Unani dispensaries 71 and Homeopathic dispensaries 10.

Some of the important schemes carried out:—National Malaria Eradication Programme; National Filaria Control Programme; National Smallpox Eradication Programme; Leprosy Control Programme; The B.C.G. Vaccination Scheme.

Medical Education:—The total admission capacity of the four Medical Colleges has been raised to 1,220 by providing 140 additional seats in existing colleges, and 440 seats in four new Medical Colleges. There are 4 Govt. Medical Colleges and 5 Private Medical Colleges. Postgraduate courses in various branches of medical science have been opened.

A Logopaedic Institute has been started in Mysore.

The Dental College of the State has an admission capacity of 30 students.

Laboratories: The Public Health Laboratory at Bangalore has been up-graded and 12 District Laboratories have been established in the Districts. The Vaccine Institutes at Bangalore and Belgaum have been expanded to cope with the increasing demand for smallpox vaccine.

The All-India Mental Health Institute, situated in Bangalore, an institute-hospital complex is the only one of its kind in the country. It offers postgraduate diploma courses in Psychological Medicine and Medical and Social Psychology, a certificate Course in Psychiatric Nursing, M.D. in Psychological Medicine and Ph.D. in Clinical Psychology.

#### **EDUCATION**

Compulsory education exists for the age-group 6-8.

Secondary education in all Government and Govt. aided institutions is free. It is estimated that nearly five lakh pupils are covered by the scheme.

There are four universities in Mysore State: (1) Bangalore University, Bangalore; (2) Mysore University, Mysore; (3) Karnatak University, Dharwar; (4) Agricultural University, Hebbal, Bangalore. Besides, the Indian Institute of Science, an institute for advanced engineering sciences, enjoys University Status.

Colleges: Engineering Colleges 16; Medical Colleges 11; Law Colleges 13; Commerce Colleges 13; Agricultural Colleges 2; Veterinary College 1; Polytechnics 27; Teachers Training Colleges 19; Arts and Science Colleges 136; Pharmacy 1; Oriental 5; Physical Education 1; Fine Arts 1; Marine Products and Fisheries 1; Institute for Speech and Hearing 1; Students in general Colleges: 99,630; Students in Technical and Professional Colleges: 58,000.

There are about 34,043 schools having 42 lakh students. High Schools 1,833; Higher Primary 10,494; Lower Primary 21,716.

A regional college of education (Mysore) and a regional college of engineering (Surathkal) have been established. Among advanced training and research institutions are: All India Mental Health Institute (Bangalore), Gas Turbine Research Establishment (Bangalore); National Aeronautical Laboratory (Bangalore) and National Tuberculosis Institute, Bangalore.

Four Youth Vocational Training Centres have been established during 1964-65 under Central Govt. scheme

aided by UNICEF. This scheme will impart vocational training to students who do not continue high school education after the VIIth standard.

Hindi Education: The Third Plan saw the establishment of 3 Hindi Shikshak Training Colleges in the State. 4,375 Hindi Teachers' posts have been sanctioned for teaching of Hindi as a compulsory subject in senior primary schools. 240 Hindi teachers for high schools have also been sanctioned.

A Sainik school was established at Bijapur and another at Kushalnagar has been proposed.

# MYSORE STATE ROAD TRANSPORT CORPORATION

Bangalore 1.

The Mysore State Road Transport Corporation has a fleet strength of 2,792 passenger vehicles with a labour force of 20,000 strong. The Passenger Transport Services are operated on 2,637 routes covering a daily schedule of 4.54 lakh kms.; earning an annual revenue of Rs. 20 crores and catering to the transport needs of more than 7 lakh passengers every day all over the State. The road transport operations of the Corporation are now spread over more than  $\frac{2}{3}$  of the Mysore State.

Motor Vehicles: Stage carriers 6,200; Cars 22,000; Cabs 1,500; Goods vehicles 14,000; Motor cycles 25,000; Omnibuses 600; Auto-rikshaws 2,000; others 9,000.

Bullock carts (1961 Census): 6,93,750.

### COMMUNICATIONS

Total length of Railway: Broad gauge 483 kilometres; Metre gauge 2,062 kilometres; Narrow gauge 154 kilometres.

Length of roads 43,000 kms.

The 123-mile Hassan-Mangalore rail link has been included under the Central Sector of the Fourth Five-Year Plan. The 150-mile Bangalore-Salem rail link has been completed.

A 151-mile long West Coast road and ore carrying roads over a length of 379 miles are under execution.

Number of ports: 19; Coastline: 287 Kms. Mangalore is being developed into a major port.

No. of airports: 3 (Bangalore, Belgaum and Mangalore); No. of airstrips: 4.

Post and Telegraphs: No. of Post offices 4,000; Telephone exchanges 300; Telephones 40,000; Radios 3,00,000; Telegraph offices 600.

## TOURISM

No. of foreign tourists: 1966-67: 4,000; 1967-68: 6,000.

FOURTH PLAN
(See main article)

#### UNIVERSITIES

# BANGALORE UNIVERSITY

Bangalore 1.

Chancellor: Dharma Vira, Governor of Mysore. Vice-Chancellor: T. K. Tukol. Registrar: T. P. Issar, I.A.S.

Forty-six colleges located in the Bangalore City are under its jurisdiction. Jurisdiction of the University extends over the area comprising the Bangalore North and South Taluks of the Bangalore District but Colleges of Agriculture and Veterinary Sciences are excluded.

Total enrolment in the University and constituent colleges is 33,074, consisting of 23,499 men and 9,575 women. There are 1,614 teachers giving a Teacher-pupil ratio of  $1:20\cdot48$ .

The University provides facilities for training and research in the faculties of: (a) Humanities and Social Sciences, Education and Commerce, (b) Science, (c) Engineering and Technology, (d) Law, (e) Medicine.

There are 37 departments of study. Post-graduate facilities are available in Medicine, Surgery, Soil Mechanics and Foundation Engineering, Structural Engineering, Machine Design, Home Science, Chemistry, Education, Physics, Mathematics, Statistics, Botany, Zoology, Geology, English, Kannada, Sanskrit, Economics, Sociology and Law (Jurisprudence and Contracts).

Five-Year integrated course in Architecture and Post-Graduate Diploma Courses in different branches of specialisation in Medicine have also been introduced.

Undergraduate training is available at Pass level in all subjects and Honours level in some subjects.

## KARNATAK UNIVERSITY

Dharwar 3.

A teaching and affiliating University having jurisdiction over the districts of Belgaum, Bellary, Bidar, Bijapur, Dharwar, Gulbarga, North Kanara and Raichur in Mysore State.

Medium of Examination is English; Teaching departments 23; Affiliated Colleges 76; Recognised Institutions, nil; Constituent Colleges 4.

Chancellor, Dharma Vira, Governor of Mysore; Vice-Chancellor, Dr. A. S. Adke; Registrar, S. S. Wodeyar, M.A., Ll.B.

Total number of students (1968-69): 50,602; (1969-70): 58,417; No. of affiliated Colleges: 85.

#### UNIVERSITY OF AGRICULTURAL SCIENCES

XI Main, 16th Cross Road, Malleswaram, Bangalore-3.

Chancellor: Dharma Vira, Governor of Mysore; Vice-Chancellor: Dr. K. C. Naik, B.Ag., M.Sc., Ph.D. (Bristol); Registrar: R. Krishnappa, M.A.

It is a residential University, with constituent colleges responsible for resident teaching, research and extension education throughout the State of Mysore.

## UNIVERSITY OF MYSORE

Karya Soudha, Crawford Hall, P. B. No. 14, Mysore.

Chancellor: Dharma Vira, Governor of Mysore; Pro-Chancellor: K. V. Shankara Gowda, Minister for Education; Vice-Chancellor: D. Javare Gowda; Registrar: B. S. Srikantaiah.

This is a teaching and affiliating University; No. of University Colleges: 4; No. of affiliated colleges: 104; Total No. of students during 1969-70: 68,269.

Budget Estimates (1969-70): Opening Balance, Rs. 12,90,688; Govt. Grant Rs. 71,27,000; University Grants Commission Rs. 32,73,000; University Fee etc. Rs. 42,53,000; Total Revenue Rs. 2,01,17,988; Expenditure Rs. 2,00,10,590; Closing Balance Rs. 1,07,398.

## ASSOCIATIONS AND INSTITUTIONS

ALL INDIA INSTITUTE OF MENTAL HEALTH P. Bag No. 15, Bangalore 27.

Director: Dr. R. M. Varma; Adm. Officer: K. S. Panikkar.

## CENTRAL MACHINE TOOL INSTITUTE Tumkur Road, Bangalore 22.

The Central Machine Tool Institute is a Research and Development Organisation for metal cutting machine tools, functioning under the administrative control of the Ministry of Industrial Development and Internal Trade, Government of India.

Object: To serve the machine tool industry in the country by undertaking Research and Development in various fields related to machine tools. In general this includes research in machine tool engineering and technology, design of new machine tools, assessment and improvement of existing designs and consultation services to manufacturers.

The main functions of the Institute are: 1. Design and Development: Development of machine tools, accessories, hydraulic, electrical elements and control systems. 2. Research and Testing of machine tools: Testing of machine tools, accessories and elements. Calculation methods for design of machine tools, behaviour of machine tools, elements, hydraulic, electrical and electronic control systems. 3. Research in Machining and Technology: Studies in machineability development of cutting tools, investigations on performance of cutting tools, research in production technology. 4. Standards: Standardisation of general engineering items for use in machine tools and generally to provide assistance in the formulation of national standards on machine tools. 5. Metrology:

Precision measurement and calibration facilities, development of instruments and measuring techniques for the machine tool industry. 6. Documentation and Information: Documentation and dissemination of information pertaining to machine tools.

Director: R. K. Gejji.

## INDIAN INSTITUTE OF SCIENCE Bangalore 12.

The departments of the Institute provide facilities for post-graduate research in (SCIENCE FACULTY) Inorganic and Physical Chemistry, Organic Chemistry, Biochemistry, Physics, Applied Mathematics, Pharmacology, Fermentation Technology and Industrial Management, inclusive of Economics and Industrial Psychology.

There is provision for post-graduate research and also for post-graduate instruction (M.E.) in the departments of (ENGINEERING FACULTY) Aeronautical Engineering, Internal Combustion Engineering, Metallurgy, Electrical Communication Engineering, Electrical Engineering, Mechanical Engineering, Civil and Hydraulic Engineering, High Voltage Engineering and Chemical Engineering and also for instruction in French and German. The departments are well equipped and have adequate staff.

President of the Court: J. R. D. Tata, Chairman of the Council, R. Choksi, Director: Satish Dhawan, Registrar: S. S. Prabhu.

## LEPROSY RELIEF & RESEARCH INSTITUTE OF AYURVEDA

Arunodaya, Kengeri Post, Bangalore South.

# METER MANUFACTURERS' ASSOCIATION OF INDIA

Post Bag 6, Bangalore 26.

MYSORE CHAMBER OF COMMERCE & INDUSTRY Kempegowda Road, Bangalore 9.

President: C. G. Rama Rao; Secretary: G. N. Krishna Murthy.

# NATIONAL TUBERCULOSIS INSTITUTE OF INDIA

'Avalon', Bellary Road, Bangalore-3.

The Institute carries out applied research in Tuberculosis Epidemiology, Bacteriology, Sociology, and Control Operations in order to evolve a streamlined programme of tuberculosis control on community-wide basis. It accepts for training tuberculosis control teams (each comprising a Medical Officer, a Treatment Organizer, a Laboratory Technician, an X-ray Technician, a Statistical Assistant and a BCG Team Leader) from State Governments for 13 weeks' national training courses, Besides, it conducts every year an international training course for key programme organizers from other countries and seminar for senior health administrators and professors of tuberculosis, etc.

Other functions: It provides practical help and guidance to the Southern States of Mysore, Tamil Nadu, Andhra Pradesh and Kerala in programme organization; orientation to undergraduate and post-graduate medical students and technical advice to the Central and State Governments. Director: Dr. D. R. Nagpaul.

## REGIONAL INSTITUTE OF ENGLISH, SOUTH INDIA 6A, Cunningham Road, Bangalore.

Objects: To offer intensive training to key personnel in the field of English language teaching in these States. The Institute gives training in the teaching of English in the first six years of school to graduate teachers and Deputy Inspectors of Schools. The trainees are selected and deputed by the respective State Governments.

Other functions: The Institute provides teaching materials for English from Stds. III—VII for prescription by the southern States.

Director : Shaik Mowla.

# OTHER TRADE AND COMMERCIAL ASSOCIATIONS

All Mysore Hotels' Association, Sivaji Bldgs., Mysore Road, Bangalore 2.

All Mysore Small Scale Industries Association, Prasad Mansion, Main Road, Gandhinagar, Bangalore 9.

Bangalore Commercial Association, 45, Commercial Street, Bangalore-1.

Bangalore Gold Thread Merchants' Association, 49, Jamma Masjid Road, Bangalore 2.

Bangalore Hotels Association, Shivji Bldg., Mysore Road, Bangalore 2.

Bangalore Petroleum Dealers' Association, 18, St. Mark's Road, Bangalore 1.

Bangalore Trades Association, 21A, Mahatma Gandhi Road, Bangalore 1.

Bangalore Tract & Book Society, 16, St. Mark's Road, Bangalore.

Bangalore Tyre Dealers' Syndicate, Ramakrishna Building, 2nd Floor. Narasimharaja Road, Bangalore 2.

Bangalore Wholesale Piecegoods Merchants' Assocn., Rukmini Bldg., Chickpet, Bangalore 2. Bangalore Wine Merchants' Association, 111, Bridge Road, Bangalore-1.

Chamber of Commerce & Industry, Prabha Picture House Bldg., Mysore 1.

Coconut Merchants' Association, 33, Sithu Rao Street, Bangalore 2.

Mysore Automobile Parts and Allied Merchants Association, 1, Narasimharaja Road, Bangalore 2.

Grain Merchants' Association, 2, Hardinge Road, Bangalore 2.

Handloom, Cloth Merchants Association, 931, Marwadi Temple Road, Chickpet, Bangalore 2.

Jewellers' Association, Nagarathpeth, Bangalore 2.

Mysore Raw Silk Merchants' Association, No. 26, Resham Mahal, Kempegowda Extn., Bangalore 9.

Mysore Silk Manufacturers (Powerlooms) Association, 39, Jammu Masjid Road, Bangalore 2.

Mysore Silk Throwing Factories Association, S. S. K. Sangha Buildings, Kasi Visweswara Temple St., Bangalore 2.

Mysore State Automobile Dealers' Association, Sundaram Motors Building, 2-2A, Kasturba Road, Bangalore I.

Mysore State Radio Merchants' Association, 2-F, Mahatma Gandhi Road, Bangalore 1.

Mysore State Readymade Garments & Hosiery Manufacturers Association, 64, First Floor, Silver Jubilee Park Road, Bangalore 2.

Mysore State Road Transport Association, 12-B, B. G. S. Raja's Mansion, Vth Cross, Kalasipalyam New Extension, Bangalore 2.

Mysore Small Scale Industries Co-operative Society Ltd., Prasad Mansion, Main Road, Gandhinagar, Bangalore 9.

Mysore State Hides & Skins Merchants' & Tanners Association, 74, Commercial Street, Bangalore 1.

Mysore State Publishers & Booksellers Association, Srinivas Mandiram Road, Balepet, Bangalore 2.

Mysore State Road Transport Association, B. G. S. Rajan Mansions, II Main Road, Kalasipalayam New Extension, Bangalore 2.

Stationery, Cutlery & General Merchants' Association, Avenue Road, Bangalore 2.

Textile Association (India) Regd., Mysore Branch, C/o S. K. S. J. Technological Institute, Bangalore 1.

Handloom Cloth Merchants' Assocn., Marwadi Temple Lane, Chickpet, Bangalore 2.

Lincensed Electrical Contractors' Assocn. of Mysore, 528, Avenue Road, Bangalore 2.

Mysore Art Silk Yarn Merchants' Assocn., 32, Jumma Masjid Road, Bangalore 2.

Mysore Film Chamber of Commerce, Movieland Bldgs., 6th Cross, Gandhinagar, Bangalore 9.

Mysore Metal Merchants' Association, Post Box No. 556, Bangalore 2.

Mysore Oodabathi Mfrs.' Association, Mysore Chamber of Commerce Bldgs., Kempegowda Road, Bangalore 9.

Mysore Prov. Silk Handloom Weavers Co-op. Society Ltd., Jumma Masjid Road, Bangalore 2.

Mysore Silk Association, Asiatic Bldgs., Gandhinagar, Bangalore 9.

Mysore Silk Cloth Merchants' Assocn., No. 6, Shivakripa Bldg.. Chowdeswari Temple St., Bangalore 2.

## OTHER CULTURAL, RELIGIOUS, ETC. ASSOCIATIONS

All India Anglo Indian Association, 11, Stephen Road, Bangalore 5. All India Dental Association, Dental College, Fort, Bangalore 2.

Automobile Association of South India, 18, St. Mark's Road, Bangalore 1.

Bible Society of India and Ceylon, A/1, M. Gandhi Road, Bangalore 1.

Board of Control for Cricket in India, No. 34, 16th Cross Road, Malleswaram, Bangalore 3.

Bowring Institute, 19, St. Mark's Road, Bangalore 1.

Commonwealth Institute of Biological Control, P. Box 1403, Bangalore 6.

Central Leprosarium, Magadi Road, Bangalore 2.

Indian Hockey Federation, 16/3, Infantry Road, Bangalore.

Indian Institute of Public Administration, Vidhana Soudha, Ground Floor, Bangalore 1.

Family Planning Association, 44A, Cavalry Road, Bangalore 1.

Indian Institute of World Culture, 6, Sri B. P. Wadia Road, Basavangudi, Bangalore 4.

Indian Red Cross Society, 51, Govindappa Road, Basavangudi, Bangalore 4.

Institution of Engineers (India), Mysore Engineers Assocn. Bldg., Bangalore 1.

Mysore Automobile Parts and Allied Merchants' Association, No. 17, 2nd Floor, Ramkrishna Bldg., Narasimharaja Road, Bangalore 2.

Mysore Medical Association, Fort, Bangalore-2.

Mysore Geologists' Association, 243, Fifth Main Road, Chamarajpet, Bangalore 1.

Mysore Horticultural Society, Lalbagh, Bangalore 2.

Mysore Serum Institute, Hebbal, Bangalore 6.

Oriental Research Institute, Mysore.

Seva Sadan, XIV Cross Road, Malleswaram, Bangalore 3. Servants of India Society, Basavanagudi, Bangalore.

Sangeetha Kalabhiyardhini Sabha (Redg.), 1670, Hosakeri, Krishnaraj Mohalla, Mysore.

Shree Rama Bhajana Sabha, East Park Road, Malleswaram, Bangalore 3.

Shree Ramaseva Mandali, 189, 4th Main Road, Chamarajpet, Y.M.C.A., Cernofaph Road, Bangalore 2.

Federation of Indian Photography, 50, Sri Rama Mandir Road, Bangalore 4.

Gokhale Institute of Public Affairs, Narasimharaja Colony, Basavangudi, Bangalore 4.

Home Management, 1st Main V Block, K. West Extn., Bangalore 20.

Indian Academy of Sciences, Hebbal P.O., Bangalore 6. Indian Dairy Science Association, Hosur Road, Bangalore.

Indo Soviet Cultural Society, 28, 1st Main, V Block, Kumara Park W. Extn., Bangalore 20.

Institute of Secretaries, 28, 1st Main, V Block, K. W. Extension, Bangalore 20.

Institution of Telecommunication Engineers, C/o Indian Telephone Industries Ltd., Bangalore 16.

Kannada Sahitya Parishad, Hardinge Road, Chamarajpet, Bangalore 18.

Bangalore 18.
Shri Krishnarajendra Silver Jubilee Technological Institute, Krishnarajendra Circle, Bangalore 1.

Mysore State Adult Education Council, 1132/2, Krishna-

murthipuram, Mysore.
Mysore State Badminton Assocn., 64, XV-A, Cross Road,

Malleswaram, Bangalore 3.

Mysore State Sangeetha Nataka Academy, Ravindra Kalakshetra, Bangalore 2.

Raman Research Institute, Hebbal P.O., Bangalore 6.
Sri Bharati Seva Mandali, E-18, 17th Cross Street, Cubbonpet, Bangalore 2.

Sri Varalakshmi Academies of Fine Arts, Ram Vilas, Kashipathy Agarahar, Chamaraja Road, Mysore 4.

Visvesvaraya Industrial and Technological Museum, Kasturba Road, Bangalore 1.

#### ASSOCIATIONS IN DISTRICTS

BELGAUM VYAPARI SANGH 691, Raviwarpeth, Belgaum.

BELLARY DISTRICT CHAMBER OF COMMERCE Bellary.

DANDELI INDUSTRIES ASSOCIATION Dandeli (Dt. N. Kanara).

DAVANGERE TRADES ASSOCIATION Mandipet, Davangere.

DHARWAR CHAMBER OF COMMERCE Dharwar.

GOVERNMENT WELLESLEY TUBERCULOSIS SANATORIUM Bellary.

HYDERABAD KARNATAK CHAMBER OF COMMERCE & INDUSTRY

Shri Nagreshwar Welfare Society Building, Market Road, Gulbarga.

HOSPET CHAMBER OF COMMERCE Near Town Reading Room, Hospet (Bellary Dist.).

KANARA CHAMBER OF COMMERCE P.O. Box No. 116, Bunder, Mangalore 1.

President: U. Rajaram Mallayya; Vice-President: P. V. Kamath; Hon Secretaries: Sowcar M. Baba Pai, K. P. Kasturi.

KARNATAK AYURVED VIDYAPEETH SOCIETY Khasbag—Belgaum.

KARNATAK CHAMBER OF COMMERCE & INDUSTRY Hubli.

President: V. M. Chigateri; Vice-Presidents: R. G. Wali; C. J. Kamlani, P. S. Talikoti. Hon-Secretary: J. P. Javali.

KARNATAK HISTORICAL RESEARCH SOCIETY

College Road, Dharwar.

KARNATAK HOSIERY SAHAKARI UTPADAK SANGHA LTD. Shahapur, Belgaum.

MANGALORE CASHEW MANUFACTURERS' ASSOCIATION

Bunder, Port Road, Mangalore 1.

UDIPI CHAMBER OF COMMERCE & INDUSTRY Udipi

VANITA SEVA SAMAJ, PURANIK ROAD
Dharwar.

## ADMINISTRATIVE PERSONNEL

Bangalore 1.

## Governor

DHARMA VIRA

#### **Ministers**

Chief Minister in charge of General Adm., Home, Irrigation and Electricity, Veerendra Patil.

Transport, Mohamad Ali Mehtab Ali.

Agriculture, B. Rachiah.

Finance and Youth Welfare, Ramakrishna Hegde.

Labour, K. Puttaswamy. Education, K. V. Shankare Gowda. Development, P. M. Nadagouda.

Public Works, K. Lakkappa.

Industries and Information, Rajasekhara Murthy.

Health, Y. Ramakrishna.

Social Welfare, Vasantrao Patil. Revenue, H. V. Koujalgi.

### Ministers of State

A. J. Doddameti (Minor Irrigation), Alur Hanumanthappa (Forest), G. B. Shankar Rao (Veterinary and Animal Husbandry), H. C. Linga Reddy (Fisheries and Ports), B. Vithaldas Shetty (Food and Civil Supplies), B. M. Patil (Municipal Administration).

### **Deputy Ministers**

H. C. Boriah (Transport and Tourism), A. P. Appanna (Industries), D. B. Pawar (Agriculture), B. L. Gowda (Co-operation), D. Parameswarappa (Major Irrigation and Electricity), Mrs. Basavarajeswari (Social Welfare), G. Basavannappa (Health), N. M. Kotrabasaviah Sogi (Education), Basavaraj Magavi (Public Works), G. Thammanna (Sericulture), Manikrao Patil (Home).

#### Secretariat

Chief Secretary, R. N. Vasudova; Secretaries: V. Byrappa (Agriculture and Forests); Chandappa Patil

(Commerce and Industries); G. V. K. Rao (Development); K. Ramachandran (Education); Mani Narayana Swamy (Finance); M. K. Venkateshan (Food); N. Lakshman Rau (Home); S. V. Papa Reddy (Law); Iftikar Ahmed (Public Works); M. S. Swaminathan (Revenue); B. S. Muddappa (Health).

Heads of Departments

Director of Agriculture, Dr. H. R. Arokeri; Director of Animal Husbandry, Dr. D. Rudriah; Registrar of Cooperative Societies, C. A. Jhamkandimath; Director of Public Instruction, S. V. Javoor; Director of Collegiate Education, Smt. M. Jayalakshammanni; Director of Technical Education, V. V. Shantamallappa; Director of Fisheries, G. L. Rao; Director of Food Supplies, Mani Narayanaswamy; Chief Conservators of Forests, N. S. Kaikini and D. Nanjundappa; Director of Health Services, Dr. H. G. Sattur: Director of Industries, T. R. Satish. Dr. H. G. Sattur; Director of Industries, T. R. Satish-chandran; Director of Information, M. D. Mariputtanna; Labour Commissioner, H. L. Nage Gowda; Inspector General of Police, S. N. Hosali; Directors, S. H. Venkatesh Kumaran (Employment); R. Sampath Kumaran (Bureau of Economic & Statistics), V. R. Uthman (Sericulture); Chairman Mysore, Public Service Commission, Park House, Bangalore 1, R. V. Bidap; Director of Food Supplies: B. S. Hanuman; Vigilance Commissioner, Mir Iqbal Hussain.

#### High Court

Public Office Bldgs., Bangalore 1.

Chief Justice, M. Sadasivayya; Judges, A. Narayana Pai, Ahmed Ali Khan, B. M. Kalagate, G. K. Gobinda Bhat, K. R. Gopi, Vallabha Iyengar, D. M. Chandrashekhar, M. Santosh, C. Honniah, K. Bhimiah, B. Venkataswamy, M. Sadanandaswamy, I. Noronha, V. S. Malimath.

Registrar, P. Subramaniam; Advocate-General, V. S. Mallimath.

## NAGALAND

# HEADQUARTERS: Kohima.

Area: 6,366 sq. miles.

Population: 369,200 (1961 Census).

Administrative Districts with headquarters shown within brackets: Kohima (Kohima); Mokokchung (Mokokchung); Tuensang (Tuensang).

There are 828 villages.

The economy of the state is mainly dependent on agriculture. Revenue is derived from house tax and forest produce like bamboo, cane, timber, thatch and 'Agar'.

The deficit in food production at the beginning of the 3rd Five Year Plan was estimated at 5,400 tons, the major crop being rice which accounts for 80 per cent of the total output of food. In the villages people depend mostly on their own cottage industry for cloth. Yarn is made locally though it is also imported. Towns now import mill cloth.

The main tribes in the Area are : Angami, Sema, Lhotha, Ao, Rengma, Chakhesang, Sangtam, Konyak, Chang, Phom, Yimchunger, Khiamngan, Zeliang-Kiki and Kachari.

## DEVELOPMENT PROGRAMME

Third Plan: An outlay of Rs. 7.25 crores had been approved for the 3rd Five Year Plan subject to the increase in allocations from year to year based on the actual performance. By the end of the financial year 1965-66 the actual expenditure under the Plan scheme came to Rs. 1,075.38 lakhs.

Agriculture: Under agricultural production scheme the total foodgrains production was brought to 63,390 tonnes by the end of 1965-66. The anticipated foodgrains production by 1968-69 was 69,190 tonnes.

Forests: Forests are the main source of revenue in Nagaland. By the end of 1964-65 the production of timber, timber poles and firewood were 7,45,008 cft., 6,481 nos. and 2,96,500 cft. respectively. The annual revenue during the year was Rs. 12,98,000.

Roads: National Highway (Surface) 64 miles; Total surfaced roads (State routes) 119 miles; Unsurfaced roads 1,778 miles; Mule Paths 465 miles; State Highways 404 miles; Major District roads 311 miles; Other District roads 345 miles; and Village roads 837 miles.

Third Plan expenditure: Rs. 343.01 lakhs.

(Source: P.W.D.).

Transport: kilometrage covered by nationalised Transport—By Bus services 359; By Town services 200; By Taxi services 215.

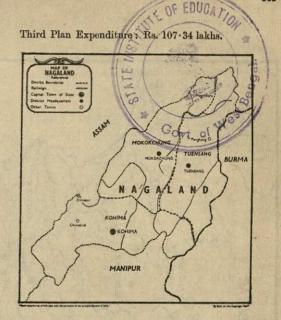
Total daily coverage operational mileage: By bus 1,278 (2,056 K.M.); By car 246 (306 K.M.).

Education: No. of Government Primary Schools 947; Middle Schools 146 (129 Govt.), High Schools 33, Colleges four (two Govt.), Polytechnical School one; Teacher's Training Institutes three; Adult Literacy Centres 121.

No. of Students in L.P. Schools 67,257; M.E. Schools 17,194; High Schools 7,681; Colleges 263.

Health:—Hospitals during the year 1968: 27; T.B. Hospitals 2; Beds 879; Dispensaries 75; Primary Health Centres 6; Sub-Centres under P.H. Centres 15; Leprosy Colonies 2; V.D. Clinies 2; T.B. Clinies 3; B.C.G. Teams 3; Smallpox Unit 1; Malaria Unit 1; Health Education Programme 1; School Health Service 1; and Survey Education Training (Leprosy) 2 Centres. (Source: Medical Directorate).

At present one medical unit covers an average of 68 sq. miles and one hospital bed is available for every 455 persons. The anti-malaria and smallpox drive has made considerable progress,



## ADMINISTRATIVE PERSONNEL

Kohima

## Governor

B. K. NEHRU

#### Ministers

Chief Minister in Charge of Home and General Administration, Information and Publicity, Hokishe Sema.

Finance and Revenue, Planning and Co-operation, Industries and Commerce, R. C. Chitten Jamir.

Education and Cultural, Research, Forests, Geology and Mining, Soil Conservation, John Bosco Jasokie.

Public Works Department and Electricity, T. N. Angami.

Tuensang Affairs, Supplies and Excise, Akum Imlong.

Law and Parliamentary Affairs and Agriculture, T. Kikon.

#### Ministers of State

Transport and Communication, Relief and Rehabilitation, N. I. Odyuo; Medical and Public Health, Co-operation, Ihezha Zhimomi; Community Development, Town and Country Planning, including Local Development Works, Koramoa Jamir; Veterinary and Jails, Chingwang Konyak; Education, Social Welfare, Weprenyi Kapfo.

## **Deputy Ministers**

Forests and Fishery, Zulutemba Ao; Public Works Department, Riga Thong; Information and Publicity, Nihovi Sema; Medical and Public Health, Tochi Hanso; Agriculture, Punuho.

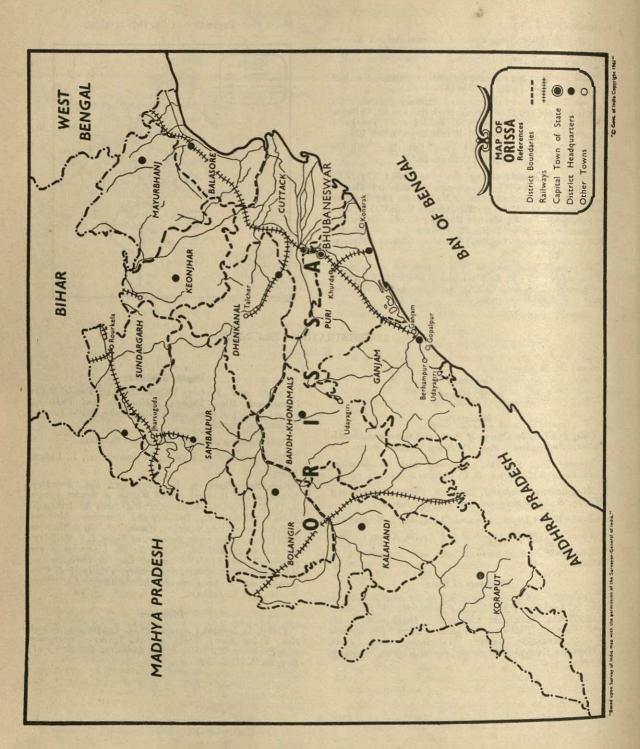
Parliamentary Secretary, Tsebongse Sangtam.

Chief Secretary, R. Khating; Commissioner, L. Lungalang.

Secretary, Planning, H. Zopianga; Spl. Secretary, Education and Research, Social Welfare & Border Affairs, R. H. M. D'Silva; Secretary, P.W.D. and Electricity, T. Aliba Imti; Secretary, Industry and Commerce, Elections, I. Sashimeren Aier; Secretary, Home, Publicity & Tourism, S. C. Dev.; Jt. Secretary, Supply and Relief, J. S. Halliday; Jt. Secretary, Medical, Public Health, Co-operation and Excise, Z. Obed; Jt. Secretary, Law & Parliamentary Affairs, L. L. Yaden; Jt. Secretary, Transport & Communications, I. Longkumar; Jt. Secretary, Agriculture, Forests, etc., N. Jakhalu.

#### Directors

Forest, L. Rynjah; Agriculture, I. Panger Ao; Education, Yajen Aier; Health Service, T. Ao; Information and Publicity, N. Bedang Ao; Industry, Dr. Sadgopal; Supply, C. Wati Aier.



## ORISSA

APITAL: Bhubaneswar.

Area: 60,172 sq. miles or 155,845 sq. kms.

Total Population: 17,548,846 (Males 8,770,586 and Females 8,778,260) (1961 Census). See article "Population" for more details.

Administrative Divisions: The State is divided into three Revenue Divisions, namely, Central Division (Hqrs. Cuttack), Northern Division (Hqrs. Sambalpur) and Southern Division (Hqrs. Berhampur). The following are the 13 Administrative Districts with names of district headquarters in brackets.

Cuttack (Cuttack); Puri (Puri); Dhenkanal (Dhenkanal); Phulbani (Phulbani); Balasore (Balasore); Sambalpur (Sambalpur); Ganjam (Chatrapur); Koraput (Koraput); Mayurbhanj (Baripada); Sundergarh (Sundergarh); Bolangir (Bolangir); Keonjhar (Keonjhargarh); Kalabandi (Bhawanipatna).

Number of Revenue Sub-Divisions: 53 (which are further divided into Tahsils).

Number of Municipalities: 19.

Number of Notified Area Councils: 44.

Number of villages: 52,125 (1961).

Panchayat Samities—Grampanchayats: 3,831 (after the re-organisation in 1967); Number of Panchayat Samities: 314.

Panchayat Raj was inaugurated throughout the State on Jan. 26, 1961. Under the reorganisation scheme in 1967, the Zilla Parishads at the top of the three-tier system were abolished.

## LARGE-SCALE INDUSTRY

Main large-scale industries of State.

Textiles; Cement; Refrigerators; Paper; Glass; Sugar; Iron and Steel; Potteries; Spinning Mills; Tube Mill; Refractories and pipes; Ferro-manganese; Chlorine and Caustic Soda; Low Shaft Furnace; Structural Transmission Towers; Coil and Coil Products; Aluminium Ingots; Aluminium Cables; Steel Reinforced; Cast Iron Specials; Cast Iron spun pipes; Cast Iron Castings; Paper, Ferrosilicon and Ferro-chrome.

#### CHIEF INDUSTRIAL UNITS

Orissa Textile Mills, Chowdwar; Kalinga Tubes, Ltd., Chowdwar; Titaghur Paper Mills, Ltd., Chowdwar; Electrolux India, Ltd., Chowdwar; Kalinga Industries, Ltd., Cuttack (Factory at Chowdwar); Shree Durga Glass Works, Ltd., Baranga; Orissa Industries, Ltd., Baranga; National Foundry and Rolling Mills, Ltd., Cuttack; Patnaik Industries, Ltd., Bhubaneswar; Cement Concrete Products, Ltd., Bhubaneswar; Ferro-Chrome, Jajpur Road; Orient Paper Mills (P) Ltd., Brajarajnagar; Hindustan Aeronautics, Sunabeda; Indian Metals & Ferro-Alloys, Ltd., Tirubeli, Rayagada; Jeypore Sugar Co., Ltd., Rayagada; Straw Products, Ltd., (J. K. Paper Mills), Jaykeypore, Rayagada; Indian Aluminium Co., Ltd., Hirakud; Aluminium Industries, Ltd., Hirakud; Hira Cements (Industrial Dev. Corporation), Hirakud; Aska Cooperative Sugar Industries, Aska; Kalinga Iron Works, Ltd., (Industrial Dev. Corporation), Barbil; Tata Ferromanganese Plant, Joda (Barbil); East Coast Salts & Chemicals, Ltd., (Industrial Dev. Corporation), Bhubaneswar (Factory at Ganjam); Jayshree Chemicals, Ltd., Ganjam; Orissa Cement Co., Ltd., Rajgangpur; Rourkela Steel Plant (HSL), Rourkela; Utkal Machinery, Ltd., Kansbahal; Refractory Plant, Rajgangpur, Belpahar Refractories, Sambalpur; Orissa Ceramics, Jharusuguda.



## UTKAL MACHINERY LIMITED

(Larsen & Toubro Limited in collaboration with three West German companies—Gutehoffnungshuette Sterkrade A. G., J. M. Voith GmbH and Heinrich Koppers GmbH.)

## Registered Office and Works:

Kansbahal, Dist. Sundergarh, Orissa. Telephone: 2321; Grams: "UTMAPLANT". For faster service telegrams and telex messages to be addressed: UTMAL KANS-BAHAL TLX: 7163 UTMAL CALCUTTA.

Fabricates equipment for iron and steel plants, equipment for pulp and paper plants, crushing and screening machinery, mining equipment, hydraulic gates, equipment for chemical plants, special steel structures.

The Company also offers special castings and undertakes installation and servicing of plant and equipment.

Directors: Th. Mueller (Chairman), H. Holck-Larsen (Vice-Chairman), Gunnar Hansen, John Hover, Dr. H. W. Rudhart, Dr. H. Mittendorff, H. Pfeifer, Dr. C. Knapp, Dr. K. Kuepper, L. T. Gholap, B. S. Billimoria (Alternate Director), D. S. Mulla (Alternate Director), F. X. Beck (Alternate Director).

Selling Agents: Larsen & Toubro Limited, P.O. Box 278, Bombay I. Phone: 268181. Grams: "LARSENBRO."

## **SMALL & COTTAGE INDUSTRIES**

Small & Cottage industries with their locations in brackets: - Biscuit & Confectionery (Cuttack, Berhampur, Rourkela); Steel products (Parlakhimedi & Cuttack); Salt (Ganjam, Puri & Cuttack); Fire Bricks (Rajgangpur, Baranga, Jharusuguda, Sambalpur); Foundry (Tapang, Berhampur, Dhanmandal, Cuttack, Bhubaneswar, Rourkela, Baripada, Sambalpur, Balasore); Woodwork (Cuttack, Bhubaneswar, Baripada, Jharusuguda); Tannery (Baud, Titlagarh); Footwear (Puri, Berhampur, Cuttack); Roofing Tiles (Cuttack, Puri, Ganjam and Sambalpur); Radio & Electricals (Cuttack, Rourkela); Glazed Porcelain (Baranga, Rourkela); Agricultural implements (Cuttack); Car Batteries (Cuttack); Cycle parts (Cuttack); Paints, Chemicals & Pharmaceuticals (Cuttack); Tin containers (Parlakhimedi, Cuttack); Sports Goods (Cuttack); Mathematical Instruments (Berhampur); Aluminium Utensils (Cuttack, Puri, Rourkela); Re-Rolling and Steel fabrications (Cuttack); Boats & launches (Cuttack); Buckets (Rourkela, Cuttack); Hard Boards (Cuttack); Filigree (Cuttack); Horn Works (Cuttack & Parlakhimedi); Handloom (Sambalpur and almost throughout the State); Eri and Tassar rearing (Sambalpur & Bolangir). The State is famous for its Bell Metal and Brass works. Other cottage industries are: blacksmithy, coir products, soap and phenyl, carpentry, pottery, wooden and sea-shell toys (Puri), stone carving (Puri), ivory etching, applione works, paddy husking. There are nearly two hundred rice mills and many hullers throughout the State.

Industrial Belts: I. (a) Rourkela-Bonai-Talcher-Cuttack-Paradeep; (b) Nayagarh-Tomka-Daitari-Paradeep; II. Rourkela - Rajgangpur - Jharusuguda - Bolangir - Rayagada-Koraput-Vishakhapatnam.

## **Industrial Policy**

Loan assistance, land and power at concessional rates, waiving of Octroi duty and sales tax and guidance for preparation of project reports and obtaining of licences are some of the highlights of the policy. Sale of factory premises in industrial estates on instalment payment spread over ten years is the latest concession.

#### MINERALS, METALS

Orissa's mineral potential is enormous. Her reserves of Iron Ore, Manganese Ore, Chromite, Limestone and Graphite are among the very best in India. The minerals which are worked in large quantities include besides those stated above, Coal, Dolomite Galena, Fire clay and China Clay. Deposits of Bauxite, Vanadiferous Magnetite, Kyanite, Asbestos, Soapstone and Mica also occur in the State.

Location :-

Iron Ore:—Badampahar, Gorumahisani, Hatisikhli, Thakurani, Joda, Bolani, Sakradihi, Pipokri\*, Gandhamaradan\*, Jhiling, Tomka, Daitari\* and Hirapur\*. Total estimated reserves: Over 8,000 million tons.

Manganese Ore: —Thakurani, Joda, Bamebari, Gurda, Kalaparbat, Siljora, Dalpahar, Bhutura, Korra valley and Kuttinga. Total estimated reserves: over 20 million tons of all grades.

Chromite:—Baula—Nuasahi, Saraubii, Sukraugi, Bhimtangar, Kaliapani. Total estimated reserves: Around five million tons.

Coal:—Talchir (Deulbera, Dera, Talchir, S. Balanda) and Rampur (Hingir—Rampur and Orient collieries) are the two coal fields of the State producing non-coking coal. The reserves in those fields may be of the order of several thousand million tons.

Limestone:—Birmitrapur, Hatibari, Purnapani, Lanjihera, Dungri,\* Umpavalle, Kottameta—Nandiveda\*. The total reserves may exceed 500 million tons.

Dolomite :- Birmitrapur in Sundargarh district.

Graphite:—Sargipali, Matupali, Dharuakhaman, Bamuni, Sigjhran, Loitera, Densurgi, Tumudibandh, Majhibhelum, Kariguda and Athamalik.

China Clay: -Khola, Joshipur, Chanachbani and Jamkesar.

Fire Clay:—Belpahar, Talabira, Darlipali, Jaganath Prasad, Gopalpur\* and Ratansara.

Bauxite: —Gandhamaradan Plateau, Kahipur Tiluk, Khariar, Karlapat plateaux. Total reserves: About two million tons.

Vandiferous Magnetite:—Huasahi, Betai, Rangamatia, Betharan, Kumardubi, Hatichar, Kesam, Majurbeka.

Mineral exploitation:—The Orissa Mining Corporation—a State Govt. Undertaking—has the largest mechanized mining and ore-handling equipment. Messrs. TISCO, Bolani Mines, Ltd., the Hindusthan Steel Mines are among the largest mechanized iron ore mines in the country.

#### PORTS

Major Port:—Paradeep (Cuttack District); with draft of 42, biggest in the country, it can receive bulk-carriers of 60.000 tonnes.

Minor Ports:—Chandbali (Balasore District) and Gopalpur (Ganjam District).

See also main article "Ports" for details.

### **AGRICULTURE**

Less than 18 per cent of the cropped area is irrigated. The latest position (1968–69) is as follows: the figures in brackets show the area sown in acres and the production in tonnes: Rice winter and autumn (96,63,000; 38,27,000) Wheat (35,320; 1,74,000); Other kharif cereals (5,72,000; 2,00,000); khariff pulses (12,66,000; 1,17,000); Rabi cereals other than rice and wheat (51,000; 25,000); Rabi pulses (20,41,000; 3,47,000); kharif commercial crops, oilseeds, jute, etc. (4,91,000 acres); Rabi commercial crops oilseeds, jute, etc. (5,94,000 acres); Oilseeds production (1,88,000 tons); sugarcane (Gur) production (1,91,000 tons); Jute (2,92,000 bales of 400 lbs).

The total coverage under the High Yielding Variety Programme (H.Y.V.P.) is 5,12,000 acres. The area under this programme is spread over 75 blocks which have been selected from 161 Blocks covered by the I.A.A.P. and I.A.D.P.

#### LAND REFORMS

The important steps taken for agrarian reforms include: Abolition of intermediaries (as many as 3,70,000 out of a total of 4,20,000 have been abolished). The tenants now hold tenancies under the Government under the Orissa Estates Abolition Act. The bulk of the remaining 50,000 estates are Trust Estates or Religious Endowments. The total compensation payable to erstwhile land owners is Rs. 9·5 crores. The system of collection of rent by hereditary village headmen (karjis and karnams) has also been abolished. Land revenue has been abolished from 1st April, 1967. The provisions in the Land Reforms Act relating to fixation of land ceiling are still sub-judice. In case it is decided in favour of State Government, about 17,50,000 acres of surplus land can be taken over by Government for which a compensation of Rs. 9 crores will have to be paid.

Water rates and irrigation cess were levied in all the districts from June 1, 1961, except in Cuttack, Balasore and Ganjam districts, where the provisions of Irrigation Act came into effect from July 1, 1963. But the rates have been halved since June, 1967.

### **FORESTS**

The total estimated forest area of the State: 26,317.80 square miles (42 per cent of the total land area). The forests are largely confined to Western Districts of the State while the coastal Districts are deficient in forests where the demand is greater.

Out of the total forest area, 9,100·90 square miles are Reserve Forests, 2,485·11 square miles are Reserve Lands and Demarcated projected forests, Ex-Zamindary forests, private forests and other types of forests. Sixty per cent of the total forest area of the State is demarcated and support forest growth of reasonable value. Sal is the most important timber species of the State. Besides Sal, Teak, Sisoo, Piasal, Kurum, Bandhan, Champa, and Gambhar are available. In the exploitable forests 56 per cent of the available species are utilised as firewood. There are extensive areas of the state covered with bamboos. They feed 3 Paper Mills within the State and 2 outside.

At the end of the 3rd Plan, revenue from forests was Rs. 4,70,13,800. Besides bamboos and timber, kendu leaf used for the manufacture of bidis has yielded a net revenue of Rs. 1,97,00,000 in 1968-69. The total expenditure under the head "Forests" is about Rs. 2,00,00,000 including the expenditure on Plan schemes.

<sup>·</sup> Indicates occurrences which have not been worked.

ORISSA 517

The average outlay on forests in the Annual Plans from 1966-67 to 1968-69 was Rs. 50 lakhs per year. A provision of Rs. 4 crores in the draft 4th Plan has been made under "Forests". About 25 per cent of the exploitable forests are covered with uneconomic species. One of the major schemes in the Plan is to plan economic species such as teak, sisoo and semul in the place of the uneconomic species.

The Orissa Forest Corporation is engaged in scientific exploitation of forest resources in some of the areas. It has set up its own saw mills and supply depots.

#### TRANSPORT

The State is still underdeveloped in road communication. There are 1,427 miles of State Highways, 3,183 miles of major District roads, 5,542 miles of other District roads and 4,027 miles of rural roads.

Out of 5,818 miles of roads of higher category in the State, so far (1967-68), 2,886 miles have been made all weather.

The 90-mile long Expressway connecting the Daitari mining area with Paradeep Port, undertaken in the 3rd Plan, was completed in 1967-68.

Most of the passenger bus routes have been nationalised. They are now shared by the State Transport Service and the Orissa Transport Company.

(The Company operates buses on 132 routes).

Orissa State Commercial Transport Corporation: It is primarily concerned with transport of iron ore from Daitari mines to Paradip Port and has a fleet of nearly 90 tractor-cum-trailers each capable of hauling 25 tonnes. The Government has invested Rs. 2 crores in share capital and advanced also a loan of Rs. 181 lakhs.

#### CO-OPERATIVES

The Primary Agricultural Credit Societies which were originally 8,925 (1967), have been reorganized into 3,000 viable societies in 1968-69. Under the Action Programme, another 666 new societies at the village level are being set up in 1969-70. The membership is 14,72,000.

Amount of short-term and medium-term loans advanced Rs. 19,00,00,000 (1968-69); Amount of long-term loans advanced; Rs. 4,00,00,000; Number of Central Co-operative Banks: 18; Branches: 44.

To ensure flow of agricultural credit from Reserve Bank and to meet credit requirements of members at the time of natural calamities, a relief and guarantee fund has been created with Rs. 58 lakhs by end of 1968-69.

Number of Primary Land Mortgage Banks: 55 (1968-69). The Central Land Mortgage Bank had a programme to float debentures worth Rs. 3·92 crores in 1969-70 for investment of long-term loan to the extent of Rs. 5 crores.

Number of Regional Marketing Societies: 53 (1968-69) with Government investment of Rs. 78 lakhs in them. Wholesale Consumers' Co-operative Societies: 8 with 81 primary units in semi-urban and rural areas. Number of Co-operative Farming Societies: 105 (They will be strengthened for taking up agro-industries). Number of Labour Co-operatives: 282. Number of Industrial Co-operatives: 51 (rice-cum-oil mills 35, sugar factories 2 and cold stores 14).

#### PUBLIC HEALTH & MEDICAL

Commonest diseases in the State are: Smallpox, Cholera, Filaria and fevers (including Malaria). Malaria has almost been eradicated through the N.M.E.P. The

"industrial" diseases like tuberculosis are on the increase. The dreadful yaws disease among the tribal people is also under control.

Number of allopathic hospitals and dispensaries: 388 (74 urban and 314 rural); Ayurvedic hospitals and dispensaries: 122; Homoeopathic dispensaries: 24. Beds in hospitals: 7,562; Maternity homes: 98; Maternity and child welfare centres: 182; Primary health centres 314 (one in each of the Blocks); Medical Colleges: 3 (intake 450 annually); Ayurvedic College: 1. (A separate directorate has been set up for indigenous systems of medicine since June, 1968). Nurses' training institutions: 4 (intake raised from 150 to 200 annually); Auxiliary and midwifery training centres: 4; Pharmacists' training institutions: 2; T.B. Clinics 13 (including one full-fledged Sanatorium); Leprosy Control Units: 8, besides 64 S.E.T. Centres; Filaria Control Units: 5; Malaria Control Units: 15; Urban Family Planning Centres: 35; Rural Family Planning Centres: 231.

### **EDUCATION (1969-70)**

Enrolment of students in the age-group, 6-11, 11-14 and 14-17, were  $19\cdot72$  lakhs,  $3\cdot67$  lakhs and  $2\cdot17$  lakhs respectively.

No. of Schools: Primary: 20,000; Higher Primary (Class VI and VII) 4,000; and Secondary 900. Teachers: Primary 53,318; Higher Primary 14,648; and Secondary 11,826.

The number of students enrolled in 83 colleges under the 3 Universities (excluding Orissa University of Agriculture and Technology) is 32,618, Teachers' Training College 3 4; Engineering Colleges 3; Engineering Schools 4.

(See Educational Statistics)

### LABOUR, HOUSING

Position in 1969:

Names of industries in which minimum wage is fixed:
Rice Mill, Flour Mill and Dal Mill, Tobacco (including
bidi and gudakhu making) manufactory, road construction, building operations and stone breaking or stone
crushing, Public Motor Transport, employment in
agricultural operations and employment under Local
Authority (excepting Gram Panchayats, Anchal Sasan
and Notified Area Councils) and Printing Presses.

The minimum rates for wages in respect of the following scheduled employments were revised with effect from 26-11-1960: (I) Rice Mill, Flour Mill or Dal Mill, (2) To-bacco (including bidi making and gudakhu making) manufactory, (3) Agricultural operation, (4) Road construction or building operation and stone breaking or stone crushing within the notified area of Rourkela. Minimum wages in respect of Municipalities & N.A.C., Public Motor Transport, construction or maintenance of roads have been revised since 1965.

The following employments have been added to Part I of the Schedule appended to the Minimum Wages Act. 1948—Salt pans, printing presses, tile and brick making, private road transport, hotels, eating houses and restaurants, distilleries, shops and establishments, metal industries, cinema industry, saw mills, handloom and hosiery.

Number of registered factories: 1,198.

Average daily number of workers in registered factories: 76,000 (approximately).

Average monthly earnings of industrial workers: Rs. 194.00.

Number of Trade Unions in the State: 196 (Out of these 109 establishments have been covered by the Industrial Employment (S.O.) Act).

Total membership of trade unions: 71,500.

Number of Labour Welfare Centres: 22.

Number of establishments covered under the Minimum Wages Act: 95,200 (1968).

Number of workers employed in them: 6,31,746.

During 1968-69, there were 215 industrial disputes out of which 104 were settled by conciliation. A total of 228 disputes were referred to Industrial Tribunal and Labour Court. There were 17 cases of strikes and 2 cases of lockouts.

Under E.S.I. Scheme, 31,955 insured workers were benefited till end of December, 1968.

Employment: Employment Exchanges, Guidance Bureau and Employment Sub-Offices, 35 in all, are functioning in the State.

Housing: During the year 18 houses under Subsidised Industrial Housing Scheme, 10 houses under Middle Income Group Housing Scheme and 108 houses under Low Income Group Housing Scheme were constructed. Now the total number of houses is 2,388, 470 and 1,899 under the three schemes respectively.

#### POWER

Power:—Generation of electricity and construction of power projects are in the direct charge of the State Government while the transmission and distribution of power to consumers are the responsibility of the State Electricity Board.

The more important schemes of generation:

(i) Hirakud Stage II, (ii) Talcher Thermal Station, and (iii) Balimela Hydro-Electric Project.

Hirakud Stage II:—The work on Stage II of Hirakud Project is complete and it has now a scheduled capacity of 270 M.W. and is capable of supplying 121 M.W. of firm power.

Talcher Thermal Scheme:—All the four units of 62.5 M.W. each have been commissioned. The total expenditure is Rs. 29.50 crores (with a spillover of Rs. 2 crores next year). It draws its coal from the mines operated by the National Mineral Development Corporation.

Talcher transmission system interconnects this thermal power station with Hirakud grid and the Machkund and Balimela hydel projects (both the latter are joint projects of Orissa and Andhra). The estimated cost of the transmission scheme is Rs. 5·20 crores out of which Rs. 4·67 crores have been spent.

Balimela Hydro-Electric Project:—The Balimela Dam is the joint venture of Orissa and Andhra Pradesh whose revised estimate is Rs. 33·58 crores. The Balimela Power Project is that of Orissa alone. It envisages installation of six generating sets of 60 M.W. each. The cost of the power house is Rs. 27·48 crores. The tail water from the power house will be used for irrigating about 2·5 lakh acres in Malkangiri-Motu plains.

Orissa has spent Rs. 1.90 crores on the Balimela Dam project and Rs. 4.50 crores on the power project in 1968-69. The power generation is expected to start in 1973-74.

At the end of 1968-69, the installed capacity was 560 M.W. with the commissioning of Talcher Thermal Station.

Rural Electrification:—Executed by the Orissa Electricity Board, 866 villages have been electrified and 432 lift irrigation pumps energised. The budget provision for 1969-70 was Rs.  $1\cdot 20$  crores, with the target to electrify 100 villages and energise 130 lift pumps.

Balimela Transmission Schemes:—The Rayagada-Talcher 220 kV double circuit transmission lines are under construction. It will link up all the three main power stations, namely, Talcher, Balimela and Hirakud. The length of this line is 512 kilometers and the cost has been revised to Rs. 14·20 crores. With the budget provision of Rs. 1·50 crores in 1969·70, the total expenditure incurred was expected to be Rs. 7·33 crores.

Talcher Transmission Scheme:—The system connects Talcher Power Station with Hirakud grid at Joda Sub-Station and Chainpal Sub-Station and supplies power to the Jajpur area to meet requirements of the Ferro-Chrome plan and other industries. The energization of the 132 KV from Talcher to Jajpur Road and the Sub-Station at Jajpur have been completed this year. The system envisages construction of 92 miles of 220 KV line from Talcher to Joda and 6 miles of 132 KV line from Talcher to Joda and 6 miles of 132 KV line from Talcher to Jajpur. The total cost is Rs. 513 lakhs. Out of this Rs. 5 crores will have been spent by the end of 1969-70.

In addition, under the general transmission and distribution scheme, construction of main trunk and feeder lines to support rural electrification programme and power supply to various industries has been taken up. The transmission lines from Berhampur to Ganjam and from Rayagada to Theruvelli have been completed. It is proposed to draw high tension and extra high tension line to a length of 250 kilometers and 40 kilometers respectively. This year's budget provision is Rs. 118 lakhs. The total cost of the scheme is Rs. 15 crores out of which Rs.13.87 crores will have been spent by the end of this year.

#### IRRIGATION

(See also tables under main article 'Irrigation')

At present the following existing projects provide irrigation facilities to the extent mentioned against each (in acres): Rushikulya canals 1,64,000; Mahanadi Delta canals 6,00,000 kharif and 2,48,000 rabi; Hirakud Dam Project canals 3,40,000 kharif and 2,32,000 rabi; Jajpur canals 35,455; High Level Canal Range III 60,000; Baldia and Baldia Projects 18,000; Salandi 53,000; Salki 40,000 kharif and 5,000 rabi; Budhabudhian 6,500 kharif and 1,500 rabi; Derjang 9,000 kharif and 3,000 rabi; Bahuda Stage I 8,000 kharif and 1,500 rabi; Hiradharbati 12,000 kharif and 540 rabi.

Minor Irrigation: An area of 6,40,000 acres was brought under irrigation by minor irrigation (flow) project by the end of 1968. By the end of 1969, another 12,000 acres were expected to be covered by minor irrigation. 301 lift irrigation projects have been completed with a potential of 30,000 acres.

Hirakud Dam Project (Stage I): The project is completed. The entire irrigation potential of 3,80,000 acres in kharif and 2,20,000 acres in rabi is being utilized. After improvement and renovation of the canals, which is under way, the system will irrigate 4,05,000 acres in kharif and 2,22,500 acres in rabi seasons.

Mahanadi Delta Irrigation Scheme: Out of total estimated cost of Rs. 34·40 crores, Rs. 29·64 crores have been spent by end of 1968-69. The scheme consists of remodelling of existing weirs at Jobra and canal systems and construction of a diversion weir at Mundali to pick up the regulated release from Hirakud Reservoir for irrigation in Cuttack and Puri districts. The delta canals will command an area of 16 lakh acres.

ORISSA 519

Salandi Project: The project consists of a 160-foot high dam at Hadgarh, a barrage at Bidyadharpur across the Salandi river and a canal system, to irrigate an area of 1,13,000 acres in Balasore District. Out of the revised cost of Rs. 14·25 crores, a sum of Rs. 13·41 crores has already been spent. The barrage has been completed, and the erection of sluice gates is nearing completion. The project has begun to irrigate already 53,000 acres since last kharif season.

Medium Irrigation Projects: The important medium irrigation projects nearing completion are: Salia (cost: Rs. 2.94 crores; expenditure so far Rs. 2.47 crores; irrigation 20,000 acres kharif and 6,500 acres rabi); Salki (cost Rs. 1.66 crores; expenditure so far Rs. 1.38 crores; irrigation 40,000 acres kharif and 5,000 acres rabi); Budhabudhianai (cost Rs. 1.50 crores; expenditure so far Rs. 1.48 crores; irrigation since last season 6,500 acres) Godahado (cost Rs. 1.95 crores; expenditure so far Rs. 1.17 crores; irrigation 11,000 acres in kharif and 3,000 acres in rabi); Dhanei (cost Rs. 1.32 crores; expenditure so far Rs. 1.25 crores; irrigation 9,500 acres); Derjang (cost Rs. 3.72 crores; expenditure so far Rs. 3.22 crores; irrigation 16,000 acres in kharif and 8,000 acres in rabi); Bahuda Stage I (this is a diversion weir) (cost Rs. 1.58 crores; expenditure so far Rs. 84 lakhs; irrigation 12,000 acres in kharif and 1,500 acres rabi); Hiradabati (cost Rs. 35.50 lakhs; expenditure so far Rs. 34 lakhs; irrigation 10,900 acres kharif and 540 acres rabi); Pittamahal: a new project taken up in 1968-69 (cost Rs. 83 lakhs; expenditure so far Rs. 8 lakhs; irrigation potential 8,000 acres kharif and 4,000 acres rabi); *Uttei*: this is a new project taken up in 1968-69 (cost Rs. 90·20 lakhs; expenditure so far Rs. 5 lakhs; irrigation 22,000 acres kharif and 6,000 acres rabi).

At present, the major and minor irrigation projects provide irrigation to about 18.25 lakh acres while the minor irrigation (flow and lift) projects provide irrigation to about 7.2 lakh acres. The net irrigated area from all sources is about 21 lakh acres at the end of 1968-69 kharif out of the cropped area of 14,28,000 acres.

## COMMUNITY DEVELOPMENT

Position in 1969:

The entire State has been delimited into 314 blocks including 75 Tribal Development Blocks. The stage position is: Stage I—35 Blocks; Stage II—184 Blocks and Post-Stage II—95 Blocks.

The Applied Nutrition Programme covers 96 Blocks.

## PANCHAYAT RAJ

There are 3,829 Grama Panchayats covering a population of about 164 lakhs in about 5,100 villages. There are 314 Panchayat Samitis. The top tier, namely Zila Parishad, has been abolished.

#### BERHAMPUR UNIVERSITY

Berhampur-4 (Ganjam), Orissa.

It is as an affiliating and examining University.

Chancellor, Dr. S. S. Ansari, Governor of Orissa; Vice-Chancellor, R. P. Padhi; Registrar, R. C. Rajguru.

Number of affiliated Colleges: 13.

University Teaching Departments: 7.

Number of students in the University Teaching Departments: 176.

Number of students in the affiliated Colleges: 5,577 (As per 1968 annual report).

General medium of instruction: English.

## Budget Estimates: 1969-70

Receipts: Rs. 71,44,300. Expenditure: Rs. 71,02,300.

# ORISSA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

Bhubaneswar.

Chancellor, Dr. S. S. Ansari, Governor of Orissa; Vice-Chancellor, Dr. B. Samant Rai, M.So. B.L., Ph.D. (Lond.), D.I.C. (England); Registrar, Dr. D. Misra, M.A., A.M. (Columbia), Ph.D., (Utkal); Comptroller, A. Malik, O.F.S.

Constituent Colleges: 4.

Degrees awarded: B.Sc. (Ag.); M.Sc. (Ag.); B.V.Sc. & A.H. and M.V.Sc. & A.H.

#### Budget for 1969-70

Income: Rs. 62,30,550; Expenditure: Rs. 64,14,306.

## SAMBALPUR UNIVERSITY

Sambalpur (Orissa)

Chancellor, Dr. S. S. Ansari, Governor of Orissa; Vice-Chancellor, Dr. K. C. Patnaik; Registrar, Dr. N. K. Sahu, M.A., Ph.D., D.Litt.; Dy. Registrar, Dr. B. N. Mishra, M.Sc., Ph.D.

Number of affiliated colleges: 25.

## Budget Estimates for 1969-70

Receipts: Rs. 26,62,943.54. Expenditure: Rs. 12,02,799.87.

The medium of instruction for all classes is English.

Subjects for Post-Graduate teaching and research: English, Physics, Mathematics, Chemistry, Commerce, Economics, History, Oriya, Political Science, Civil Engineering, Electrical Engineering, Mechanical Engineering, Anatomy, Pharmacology, General Surgery, Physiology, Ophthalmology, E.N.T., Obstetrics and Gynaecology, Social and Preventive Medicines, Anaesthesiology, Veneriology, and Dermatology, Biological Sciences.

## UTKAL UNIVERSITY

Vani Vihar, Bhubaneswar-4, Orissa.

Chancellor, Governor of Orissa; Vice-Chancellor, Dr. S. Misra, M.A., Ph.D. (London); Registrar, D. P. Barai, M.A. Dip.-in-Edn.

Affiliating-cum-Teaching University.

Subjects for Post-Graduate teaching and Research: Oriya, Sanskrit, Philosophy, English, Applied Economics, Economics, History, Mathematics, Physics, Chemistry, Botany, Geology, Psychology, Political Science, Statistics, Anthropology, Commerce and Zoology.

The medium of instruction at the University stage is English.

Number of colleges affiliated to the University: 41.

Number of teaching departments under its control: 18, including M. S. Law College.

## ASSOCIATIONS

CUTTACK CHAMBER OF COMMERCE Malgodown, Cuttack 3.

GANJAM CHAMBER OF COMMERCE Berhampur.

ORISSA CHAMBER OF COMMERCE AND INDUSTRY Barbati Stadium, Cuttack 1.

ORISSA SAHITYA AKADEMI P.O. Box 56, Bhubaneswar.

ORISSA SMALL SCALE INDUSTRIES ASSOCIATION Chauliaganj, Cuttack 3.

UTKAL CHAMBER OF COMMERCE & INDUSTRY Neogi Compound, Manglabag, Cuttack-1.

#### ADMINISTRATIVE PERSONNEL

Bhubaneswar

## Governor

Dr. S. S. ANSARI Ministers

Chief Minister in charge of Finance, Home, Planning Co-ordination, R. N. Singh Deo.

Deputy Chief Minister in charge of Political and Services and Mining and Geology, Pabitra Mohan Pradhan.

Agriculture, Animal Husbandry, Fisheries, Labour,
Employment and Housing, Rajballav Mishra.

Revenue, Irrigation and Power, Surendranath Patnaik. Industries, Commerce, Home, Education (Text Book Press at Bhubaneswar), Harihar Patel.

Excise, Revenue, Political & Services, Santanu Kumar

Supply, Cultural Affairs, Nityananda Mahapatra. Law, Co-op. & Comm. Development, Hara Prasad Mahapatra.

Works and Transport, Dayanidhi Nayak. Co-operation and Forestry and Health, Murari Prasad

Education, Banamali Patnaik.

Tribal & Rural Welfare, Manmohan Turu.

Urban Development, Works & Transport, Kartick Chandra Majhi.

Agriculture (Animal Husbandry & Fisheries), Home (Jails & Reformatories), Gangadhar Pradhan.

**Deputy Ministers** 

Revenue, Irrigation & Power, Himansu Sekhar Padhi; Industries, Commerce, C.D. & Panchayat Raj, Ananta Narayan Singh Deo; Planning & Coordination, Cooperation & Forestry, Agriculture (excluding Animal Husbandry and Fisheries), Brundaban Tripathy; Health, Labour, Employment & Housing, Govinda Munda; Works and Transport (excluding Public Health Engineering of Roads & Buildings Branch), Dambaru Majhi.

#### Officials

Chief Secretary, A K. Barren, M.C., I.A.S.; Additional Development Commissioner, V. Natarajan; Secretary,

Political & Services, A. K. Barren; Secretary, Finance and Planning & Coordination, J. S. Baijal; Secretary, Home, B. B. Rath; Secretary, Industries & Commerce, V. Natarajan; Secretary, Community Development & Panchayat Raj, B. Das; Secretary, Cooperation and Forestry, G. C. Somiah; Secretary, Urban Development, Health & Family Planning, D. P. Tripathy; Secretary, Revenue & Excise, B. K. Mahanty; Secretary, Works and Transport, C. B. Jain; Secretary, Law, Trilochan Mishra; Secretary, Irrigation & Power, Mining & Geology, U. C. Agarwal; Secretary, Agriculture, C. Venkotaramani; Secretary, Tribal & Rural Welfare Department, R. N. Das; Secretary, Education & Cultural Affairs, A. Das; Secretary, Supply, A. K. Majumdar; Secretary, Labour, Employment & Housing, G. N. Das.

Heads of Departments at Bhubaneshwar

Director of Health Services, Dr. R. C. Bohidar; Registrar of Co-operative Societies, A. K. Roy; Inspector General of Prisons, Dr. S. B. Mishra; Director of Agriculture Dr. U. N. Mohanty; Director of Public Relations, H. N. Das Mahapatra; Dir. of Public Instruction, Dr. B. B. Das (Higher Edn.), Prof. B. N. Rath (Schools); Labour Commissioner, U. N. Sahu.

#### Heads of Departments at Cuttack

Director of Animal Husbandry and Veterinary Services, Dr. G. Biswal; Chief Conservator of Forests, D. N. Choudhury; Director of Fisheries, P. N. Mishra; Director, Bureau of Statistics and Economics, Dr. C. Mishra; Director of Employment, Capt. N. Mohantany; Inspector-General of Police, B. B. Misra; Director of Industries, J. P. Das; Director, State Transport, R. K. Padhi; Chairman, Public Service Commission, K. K. Samal.

## High Court

Cuttack

Chief Justice, G. K. Mishra; Judges, A. Misra, S. K. Ray, B. K. Patra, S. Acharya, R. N. Mishra; Registrar, S. K. Patra.

## PONDICHERRY

Area and population: The total area of Pondicherry (with Karikal, Mahe and Yanam) is 469 sq. km. divided into 16 communes. Population (1961 Census) 3,69,079; Pondicherry City has 40,421 inhabitants.

Capital: Pondicherry.

The Union Territory of Pondicherry consists of: (1) On The Eastern Coast: (a) Pondicherry (Capital) divided into 8 communes, situated at about 160 kms. south of Madras. The Territory is an enclave in the district of South Arcot in Tamil Nadu. Population: 2,58,561 (1961 census).

- (b) Karikal: divided into 6 communes; it is at a distance of 150 kms. from Pondicherry and is an enclave in the Tanjore District. Area: 158 sq. Km.; Population: 84,001 (1961 census).
- (c) Yanam: with the adjoining territory forming one single commune; situated in the delta of the Godavari, it is an enclave in the district of East Godavari in Andhra Pradesh. Area: 20.7 sq. Km.; Population: 7,032 (1961 census).

(2) Mahe: The territory of Mahe on the west coast consists of the town of Mahe on the left bank of the river of the same name; and the dependent territory of Naluthara on the right bank containing the four villages of Chembra, Chalakara, Palloor and Pandakkal. It is an enclave in the District of Cannanore in Kerala State.

Area: 104 sq. Km.; Population: 19,485 (1961 census).

#### **ECONOMY**

As a result of the effective implementation of schemes like Intensive Agricultural Area Programme, High Yielding Programme, Multiple Cropping Programme, Minor Irrigation and Land Development, the production of food grains which stood at \$2,500 M.T. at the end of 1968-69 was expected to reach the level of \$8,600 M.T. at the end of 1969-70. The area under sugarcane was 4,000 acres during 1969-70. The comprehensive scheme for the development of sugarcane was implemented in this Union Territory out of the Cess Fund. The Intensive Cultivation scheme for Groundnut was implemented in about 4,000 acres and the production of groundnut is expected to increase from 6,700 M.T. to 9,200 M.T. The soil testing laboratory was expected to handle about 7,500 soil samples during the year for analysis.

## CO-OPERATION

Position as on 30th June 1968: Total number of cooperative societies: 212. Total membership: 46,491. Total working capital: Rs. 292.51 lakhs.

#### ELECTRICITY

The entire requirement of power for Pondicherry and Karikal regions is obtained from the Tamil Nadu Electricity Board and for Mahe region from the Kerala State Electricity Board.

Electricity purchased (Lakhs of Units) (1968-69):  $894 \cdot 22$ ; P. C. Consumption of Power:  $424 \cdot 9$ .

#### INDUSTRIES

## Large Scale Industries of the Territory:

The Anglo-French Textiles Ltd., Pondicherry; Swadeshi Cotton Mills, Pondicherry; Sri Barathi Mills, Pondicherry; Soundararaja Cotton Mills, Karikal and The Cannanore Spinning and Weaving Mills, Mahe.

Total number of ordinary looms 1,990.

Total number of spindles 1,21,328.

## Other Small-Scale and Cottage Industries:

Food products 45; Tobacco processing 4; Textile products 2; Wearing apparel and made up textile goods 1; Wood products 19; Paper and Paper products 4; Leather products 8; Chemical products 44; Metal products except machinery and transport equipment 87; Electrical accessories and appliances 9 and Miscellaneous 63.

## Industrial Co-operative Societies:

Palm Gur Society 2; Toy Making Society 1; Brick Makers' Society 1; Mat Weaving Society 4; Carpentry & Blacksmithy Society 2; Women Cottage Society 1; Coir Making Society 2; Oil Mongers' Society 1; Handpounding Rice Workers Society 1; Pondicherry State Small-Scale Industrial Cooperative Society 1; Gramodyog Co-operative Society 1;

Tailoring Society 1; Multimetal Society 1; Appalam Making Society 1.

#### HOUSING

Under the Industrial Housing Scheme, 234 tenements have been constructed in the Industrial Housing Colony at Gandhinagar. The Low and Middle Income Group Housing Schemes have been implemented in the Coperative Sector. As on 31–12–69, 324 houses under the Low Income Group and 74 houses under the Middle Income Group Housing Schemes had been constructed. The total number of houses under various stages of construction was 91. The Government sanctioned loans to the Coperative Housing Societies to the tune of Rs. 34·72 lakhs and Rs. 20·80 lakhs under Low and Middle Income Group Housing Schemes, respectively.

### ROADS

Total length of roads (Government): 456·13 Kms. Total metalled road: 400·97 Kms.

A new pier has been built at Pondicherry at a cost of about Rs. 42 lakhs. Ships anchor at a distance from the shore and contact with land is maintained by means of boats. The Ariyankuppan River Project which is under study by the Central Water and Power Research Station when executed will provide sheltering facilities for cargoes, tugs and country boats throughout the year.

## EDUCATION (as on 1-11-1969)

Total number of Nursery schools: 49.

Total number of teachers: 63 (men 12; women 51).

Total number of students: 2,477 (boys 1,292; girls 1.185).

Total number of Primary schools: 249 (for boys 238; for girls 11).

Total number of teachers: 709 (men 518; women 191).

Total number of students: 27,034 (boys 15,645; girls 11,389).

Total number of middle schools: 78 (for boys 66; for girls 12).

Total number of teachers: 1,058 (men 588; women 470).

Total number of students: 29,982 (boys 17,550; girls 12,832).

Total number of High Schools: 45 (for boys 32; for girls 13).

Total number of teachers: 926 (men 612; women 314).

Total number of students: 25,449 (boys 16,558; girls 8,891).

Total number of colleges for boys and girls: 5 (for boys 4; for girls 1).

Total number of teachers: 312 (men 185; women 127).

Total number of students: 2,527 (boys 1,808; girls 719).

Professional Institutions and their strength: One Medical College 562 (boys 424; girls 138); One Polytechnic 112 (all boys); Two Teachers' Training Centres (boys 273; girls 70); One Junior Technical School 136 (all boys); One School of Nursing 81 (all girls); One school of Arts and Crafts: 4 (all boys); One school for embroidery, needle work and dress making 71 (all girls); four Pre-Vocational Training Centres 303 (all boys); One school for the Blind 18 (boys 12, girls 6) and One school for the Deaf and Dumb (boys 5, girls 1).

## MEDICAL AND PUBLIC HEALTH

Position as on 17-12-1969:

No. of Hospitals 8; Dispensaries 22; Primary Health Centres 11; Medical Depots 6; Bed strength 1,198 (excluding JIPMER); Ratio 1: 316; Doctors 113; Ratio 1: 3,600.

There is also a 430 bed hospital attached to the JIPMER, which functions under the control of the Directorate General of Health Services, Govt. of India, New Delhi

and Primary Health Centre functions under the control of JIPMER for teaching purpose.

## CHAMBER OF COMMERCE

Post Box No. 26, Karikal.

## CHAMBER OF COMMERCE

Pondicherry

President: H. M. Cassime; Vice-President: T. S. N. Sundararaja Bhagavatar; General Secretary: A. S. Kandasamy Pillai; Treasurer: N. Govindasamy.

## ADMINISTRATIVE PERSONNEL

Pondicherry

Lt.-Governor B. D. JATTI

## Ministers

Chief Minister in charge of Confidential, Cabinet and General Administration, Appointments, Finance and Planning, Revenue, Labour, Fisheries, M. O. H. Farook Marioar.

Home, Local Administration, Industries, Jails, Community Development, S. Ramassamy.

Agriculture, Co-operation, Health and Family Planning, Animal Husbandry, V. Kailasa Subbiah.

Education, Food, Law, S. Arumugham.

Public Works, Electricity, Ports, Harijan Welfare, Housing, Social Welfare, V. Ramachandra.

### Secretariat

Chief Secretary, Smt. Anjani Dayanand, I.A.S.; Secretary, Health, Education and Welfare Department, D. K.

Jain; Secretary, Finance, Planning, Local Adm. Department, M. S. Rajaji, I.A.S.; Secretary, Law & Labour Department, C. H. Ramakrishna Rao; Secretary to the Administrator. C. Ramou.

#### Principal Officials

Inspector-General of Police, S. N. Dey; Director of Public Instruction, K. Gopalan; Director of Health and Family Planning, Dr. S. N. Ganapath; Commissioner of Labour, P. R. Ramanathan; Public Relations Officer, A. Mohandoss; Director of Industries, R. Lakshmikantan; Director of Agriculture, K. A. Shaukat Ali; Director of Animal Husbandry, Dr. M. A. Swaminathan; Director of Fisheries, E. Palani; Registrar of Co-operative Societies, M. Sriramulu; Labour Officer, M. S. Kabeer Ahmad; Director of Civil Supplies, M. Kannan; Principal Dist. & Sessions Judge, Maxim A. Lobo; Administrator of Karikal, C. D. Dayal; Administrator of Mahe, E. Puroshottaman; Administrator of Yanam, P. Kothandapani.

## PUNJAB

CAPITAL: Chandigarh — a centrally administered area.

The Union Government announced on January 29, 1970 their decision to transfer the Capital Project area of Chandigarh to Punjab within the next five years. Pending the construction of a new capital by Haryana, Chandigarh will remain a Union Territory.

Area 50,376 square kms. Population: 1,11,35,069 (urban 25,67,306; rural 85,79,763). Male literates 20,84,556; female literates 8,92,588. Literacy 26.75 per cent. Main occupation: Agriculture.

Administratively there are two divisions (Jullundur and Patiala), eleven districts, 37 sub-divisions, 13 subtehsils and 116 blocks.

Inhabited villages: 11,947; uninhabited villages: 943 and towns: 109.

The following are the districts with headquarters in brackets:— Amritsar (Amritsar), Gurdaspur (Gurdaspur), Hoshiarpur (Hoshiarpur), Jullundur (Jullundur), Ludhiana (Ludhiana), Bhatinda (Bhatinda), Ferozepore, Patiala (Patiala), Sangrur (Sangrur), Rupar (Rupar), and Kapurthala (Kapurthala).

The Vidhan Sabha has 104 members. The State is represented by 13 members in the Lok Sabha and by seven in the Rajya Sabha.

#### INDUSTRIES

Number of registered factories on January 1, 1969: 4,415. Number of working factories: 3,962. Number of workers employed in these factories: 1,05,993.

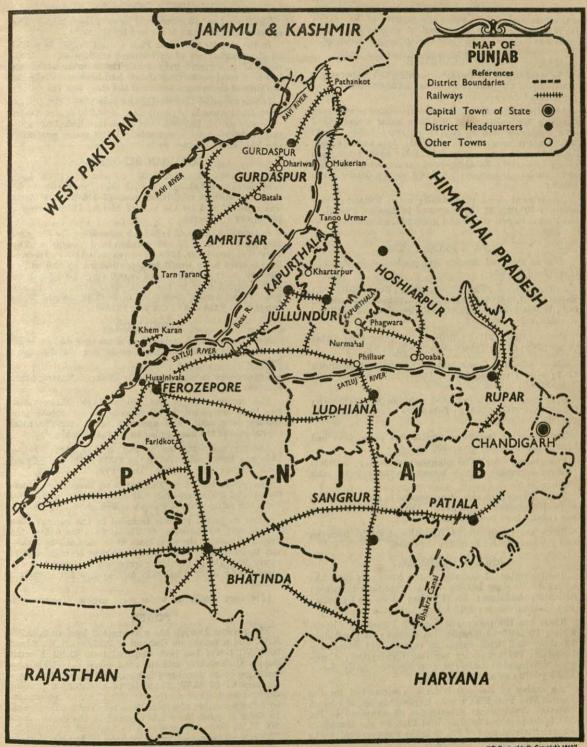
Some of the main industries in Punjab are: textile, hosiery, sports, cycles and cycle parts, sewing machines, sugar, starch factories, non-ferrous metals, resin, turpentine, scientific instruments and wool spinning and weaving units and machine tools.

Production of important industries in the State in 1967-68: Cotton textiles 373 lakh metres; cycles: 3,86,743; sewing machines: 66,428; agricultural implements and machine tools: worth Rs. 1,615 lakhs; nonferrous metals: worth Rs. 110 lakhs; steel rerolling: 1,55,932 tonnes; wood and machine screws: worth Rs. 10,351,000; scientific instruments: worth Rs. 1,61000; hosiery: worth Rs. 903 lakhs; woollen textiles: worth Rs. 16,24,27,000; power loom weaving: worth Rs. 1,325 lakhs; machine embroidery: worth Rs. 13,650,000; cotton ginning and processing: 10,39,000 bales; sports: worth Rs. 21,356,000; Resin and turpentine: worth Rs. 2,41,28,000.

Punjab occupies a prominent position in the smallscale sector with about 16,646 units in its territory out of a total of about one lakh units in the whole country.

The State has 63 large-scale and about 59 mediumscale industrial units involving a total capital investment of about Rs. 112.91 crores.

A sum of Rs. 16·15 crores has been approved by the Planning Commission for the development of industries in the Fourth Plan (1969–74) as against Rs. 21 crores provided in the draft Plan. A provision of Rs. 0·50 crore has been made for large and medium-scale industries to remove imbalance. To strengthen lean financial resources of small-scale units a sum of Rs. 7·83 crores has been set



"Based upon Survey of India map with the permission of the Surveyor-General of India.

apart. For the development of handicrafts, handloom, sericulture and village industries, a sum of Rs. 41.85 lakhs is proposed to be utilised. A sum of Rs. 201.07 lakhs was intended to be spent during the year 1969-70.

## AGRICULTURE

The total area of the Punjab, according to village records pertaining to the year 1967-68 was 5,026,000 hectares as per details below:—

Area (in hectares) under forests: 79,000; net area available for cultivation: 634,000; other uncultivated area excluding fallow land: 168,000; fallow land: 247,000; net area sown: 3,992,000; Area under crops: 5,441,000; net area sown: 3,992,000; sown more than once: 1,449,000; Total cropped area: 5,441,000; Net area under irrigation: 2,289,000 as per details given below:

Government canals: 1,293,000; wells: 989,000; other sources: 107,000. In the matter of foodgrains, Punjab is the second largest wheat and gram producing area in the Union.

#### AREA & PRODUCTION

Area in thousand hectares and production in thousand tonnes for 1968-69:

Foodgrain crops: Rice 338.0; 460.0; Jowar 3.0; 3.0; Bajra 192.0; 201.0; Ragi 0.2; N.A.; Small millets 0.3; 0.2; Wheat 2,086.0; 4,520.0; Barley 82.0; 70.0; Total cereals 3,182.5; 6,004.2.

Pulses: Gram 317.0; 216.0; Tur 1.0; 1.0; Other pulses 62.3; 30.9; Total pulses 380.3; 247.9.

Major oilseeds: Groundnut 240·3; 222·6; Sesamum 11·7; 4·3; Rapeseed 143·0; 66·0; Linseed 2·0; 1·0; Total 397·0; 293·0.

Other crops: Mesta 0·1; 0·1; Cotton 440·0; 775·0; Cotton seed 279·0; 418·5; Tobacco 0·1; 0·1; Sannhemp 4·4; 1·3.

The following targets of agricultural production had been proposed for the year 1969-70.

Foodgrains: 6,070,000 tonnes; oilseeds: 3,20,000 tonnes; sugarcane 6 lakh tonnes; cotton: 9.40 lakh bales.

There is very little scope for extension in area under crop in Punjab as about 91 per cent of the total cultivable area has already been brought under plough.

There are nearly 10,954 Agricultural Credit Societies and 959 Cooperative Farms in the State.

## ANIMAL HUSBANDRY

Total number of animals in the State: 74.80 lakhs as per details given below:—Cattle other than buffaloes: 61 lakhs; buffaloes: 29.83 lakhs; sheep and goats: 10.64 lakhs; others: 1.83 lakhs.

There are 199 permanent outlying veterinary dispensaries; 36 artificial insemination centres; 69 gaushalas; 12 sheep and wool extension centres, 211 veterinary hospitals; 287 temporary outlying dispensaries; 5 piggery development units; 4 government poultry farms and 8 poultry extension centres.

An outlay of Rs. 450 lakhs was earmarked for the Fourth Five-Year Plan for the implementation of various livestock development programmes as compared to Rs. 268 lakhs provided in the Third Plan for the composite Punjab State. A sum of Rs. 45 lakhs was proposed to be spent during the year 1969-70.

#### COMMUNITY DEVELOPMENT

The State has 116 community development blocks. The entire area of the state is covered by blocks.

In the Fourth Five-Year Plan special emphasis is laid on the programmes of agricultural production, development of power and irrigation. The number of blocks in which rural works programmes had been undertaken at the time of the reorganisation of the state was 115.

It was expected that during the year 1969–70, 3,29,000 meters drains would be constructed, 3,04,240 square meters of streets paved, 10,870 hand pumps installed, 2,820 kilometers kacha road constructed, 1,490 wells renovated and 345 drinking water wells constructed.

### AGRARIAN REFORMS

After reorganisation in 1966, an area of 116.90 lakh acres came to the share of Punjab State, which was to be consolidated. Out of this, an area of 115.50 lakh acres was repartitioned by the end of March, 1968 leaving a balance of 1.40 acres.

Against the target of 1·35 lakh acres fixed for the year 1968-69 an area of 35,966 acres has been repartitioned by the end of November, 1968. It was expected that an area of 30,000 acres more would be repartitioned by the end of 1968-69, leaving a balance of 74,000 acres for repartition to be carried over to the next year. According to the present programme, consolidation work is planned to be completed by the end of the year 1970-71.

#### IRRIGATION

Net area irrigated inclusive of areas irrigated by wells in the State: 2,289,000 hectares as per details given below:—

Government canals: 1,293,000; Wells: 9,89,000; other sources: 107,000.

The construction of the 740-foot-high Bhakra dam has been completed in all aspects except minor jobs relating to grouting and approach roads etc. The total capital cost of the dam, comes to Rs.234,81 lakhs.

Another multi-purpose project of the same magnitude now under execution in the State is the Beas Sutlej Link Project and the Beas Dam Project at Pong.

The power houses at Bhakra Dam, Beas Dam, Beas-Sutlej and Jogindernagar will form a grid system to cover the entire State of Punjab and neighbouring areas.

Other irrigation projects included in the current Plan include the construction of Thein Dam to utilise the surplus-waters of the river Beas to be released by Pakistan under Indus water Treaty, sinking of tubewells in upper Bari Doab, providing irrigation to areas between Harika and Jodh Singhwala and several lift irrigation schemes.

(For more details see under main article "Irrigation").

#### POWER

The present Punjab has a connected load of 9,95,700 K.W. and a maximum demand of 2,77,000 K.W. About 20 M.W. power has been acquired from Delhi Electric Supply Undertaking and the total power available now including some diesel-sets is about 190 M.W., leaving a shortage of 87 M.W. There is, in addition, a pending demand for load of nearly 3,00,000 K.W. as represented by a large number of applications received by the Board. In order to meet the whole demand in the State, about 200 M.W. more power would be required immediately. The rate of growth of power demand in Punjab is about 20 per cent every year.

The number of electrified villages: 4,313. General consumers: domestic 556,464; commercial 126,576. Industrial consumers: small scale 24,229; medium 1,793; large scale 454; cottage: 251.

Agricultural consumers: Bulk supply consumers: 69. Public lighting 325. Total number of consumers: 768,756. It is proposed to energise 1,27,000 tubewells, electricity 1,600 villages, give 345,000 general connections and 1,670 industrial connections during the current Plan period.

### TRANSPORT

There are about 6,359 kilometres of metalled roads in Punjab.

The Punjab Roadways which cover a daily mileage of 94,000 and cater to about  $2\cdot 60$  lakh passengers every day have a fleet of 830. The private sector contributes in operations and carriage of passengers almost to an equal extent.

The capital is linked with New Delhi by air. The I.A.C. runs a daily service between Delhi and Srinagar via Chandigarh and Amritsar.

#### LABOUR

Number of registered factories in the State in January 1969: 4,415. Number of working factories: 3,962. Number of workers employed in these factories: 105,993.

Employees' Provident Fund Scheme has been enforced in the State. For the welfare of employees in all commercial establishments the Government has enacted legislation known as Commercial Establishments Act.

The conciliation machinery is being strengthened and streamlined to settle the increasing number of industrial disputes.

#### **EDUCATION**

Number of students (boys and girls) receiving education in schools during 1968-69: 19,65,227. Total number of students in primary classes: 13,62,655. Middle class: 3,79,992; High and Higher Secondary classes: 4,26,722; Percentage of literacy: 26.75.

During 1968-69 the total number of primary schools in the State was 7,190; middle schools: 870; High schools: 814; higher secondary schools 269; Arts and science schools 71; Teachers training colleges: 16.

In the reorganised Punjab with a total population of 1.26 crores a sum of Rs. 21 crores has been provided under general education during the Fourth Plan.

Additional five lakh students in age group 6-11 and 1.81 lakh in the age group 11-14 will be enrolled during the Fourth Plan period.

#### HEALTH

Punjab has the highest life expectancy (52 years) and the lowest death (9.35 per 1,000) in the country.

The number of hospitals in the State is 110 in urban areas and six in rural areas; Primary Health Centres: 23 in urban areas and 100 in rural areas. In addition there are two Ayurvedic hospitals and 186 dispensaries in rural areas and one hospital and ten dispensaries in urban areas. There are 7,787 beds in allopathic institutions in urban areas and 1,363 in rural areas and 50 in Ayurvedic and Unani institutions in urban areas and 20 in rural areas. There are 129 family planning centres and clinics in rural areas and 100 in urban areas.

## CO-OPERATION

525

In the year 1968 the number of Cooperative Societies in the State was 22,005 with a membership of 20.08 lakhs with a working capital of Rs. 213.27 crores covering 79 per cent of the state's total population. There were 18 Central Co-operative Banks and 10,954 Agricultural Credit Societies. There were 156 Marketing Societies, 959 Co-operative Farming, five Cooperative Sugar mills, 14 cooperative central consumer stores.

There is no village without a cooperative credit society.

During the Fourth Plan a provision of Rs. 327 lakhs has been made for the development of cooperatives. The outlay proposed for the financial year 1969-70 was Rs. 53 lakhs which is 1·1 per cent of the Plan outlay. A sum of Rs. 10·56 crores has been proposed for strengthening and revitalising the village credit societies.

#### **PANCHAYATS**

The entire State is covered by panchayats. A total area of 5,79,874 acres of shamlat land is vested in the panchayats in the State. Of this 1,89,151 acres of land is cultivable and 3,90,723 acres non-cultivable. By leasing out the cultivable land the panchayats derive an income of Rs. 7,79,586 per annum.

The Fourth Five-Year Plan includes only one scheme to benefit panchayats. This relates to the financial assistance to the panchayats for expenditure on revenue earning schemes with a total outlay of Rs. 30 lakhs.

#### JUDICIARY

The separation of the judiciary from the executive was formally inaugurated by the Chief Justice of India on October 2, 1964.

#### UNIVERSITIES

There are four universities in the State: The Punjab University, Chandigarh; The Agricultural University, Ludhiana, The Punjabi University, Patiala and Guru Nanak University at Amritsar.

#### **PUNJAB UNIVERSITY**

Chandigarh

Chancellor: G. S. Pathak, Vice-President of India. Vice-Chancellor: Suraj Bhan; Registrar: Sujan Singh.

Punjab University is a teaching and affiliating University.

Provision for teaching upto the Post-graduate standard exists in the following subjects/courses:—

English, Sanskrit, Persian, Arabic, Hindi, Panjabi, Urdu, History, Economics, Political Science, Mathematics, Mental & Moral Philosophy, Psychology, Geography, Sociology, Music, Ancient Indian History and Culture, Public Administration, Statistics, History of Arts, Fine Arts, Home Science, Botany, Zoology, Chemistry, Geology, Physics, Bio-physics, Bio-chemistry, Microbiology, Anthropology, Agricultural Economics, Industrial Relations and Labour Welfare, Business Administration, Agriculture, Commerce, Dairying, Veterinary Science, Education, Physical Education, Engineering, Law, Dental Science, Medicine, Surgery, Pharmacy.

There is provision for research by scholars for doctorate degrees.

Number of Colleges:—Constituent Colleges 4; Affiliated Arts & Science Colleges: 141; Technical & Professional Colleges: 44; Number of Students: 1,60,442.

# PUNJAB AGRICULTURAL UNIVERSITY Ludhiana.

The basic structure and organisation of the University has been patterned on the model of the Land Grant Universities in the United States with a complete integration of residential teaching, research and extension education in Agriculture, Agricultural Engineering, Home Science and Veterinary Sciences. The University

has its three campuses at Ludhiana, Hissar and Palampur.

Chancellor: Governor of Punjab; Vice-Chancellor: Dr.

M. S. Randhawa, I.C.S., Registrar: R. D. Joshi.

Number of constituent colleges: 8.

Post-graduate Departments: Agronomy, Plant Breeding, Horticulture (Pomology & Olericulture), Soils, Extension Education, Chemistry-Biochemistry, Economics & Sociology, Genetics, Botany & Plant Pathology (Plant Pathology and Plant Physiology), Statistics, Microbiology, Zoology-Entomology, Animal Breeding, Animal

Nutrition, Animal Production Physiology, Livestock Production, Veterinary Bacteriology & Hygiene, Veterinary Parasitology, Veterinary Pathology, Veterinary Physiology & Pharmacology, Veterinary Surgery, Veterinary Medicine, Agricultural Engg. and Food Technology.

Budget Estimates (1969-70): Receipts: Rs. 3,99,79,540. Expenditure Rs. 3,99,79,540.

## **PUNJABI UNIVERSITY**

Patiala.

This University was established for advancement of Punjabi Studies and development of Punjabi Language as medium of instruction and for the promotion of higher education and research. This is a Unitary and affiliating University.

Chancellor: Governor of Punjab; Vice-Chancellor: Sardar Kirpal Singh Narang; Registrar: Sardar Amrik Singh.

## ASSOCIATIONS

EAST PUNJAB CYCLE PARTS MANUFACTURERS' ASSOCIATION

Gill Road, Ludhiana.

ENGINEERING ASSOCIATION OF INDIA (Punjab Regional Office) Tanda Road, Jullundur City.

ENGINEERING ASSOCIATION OF NORTHERN INDIA

G. T. Road, Batala, Dist. Gurdaspur.

FACTORIES' ASSOCIATION Railway Road, Batala.

HOSIERY INDUSTRY FEDERATION OF INDIA Sat Sang Ghar Road, Civil Lines, Ludhiana.

HOSIERY MACHINE MANUFACTURERS'
ASSOCIATION

461-62, Industrial Area B, Miller Ganj, Ludhiana.

HOSIERY MANUFACTURERS' ASSOCIATION Thapar Bldg., Bazaar Kharadian, Ludhiana.

INDIAN INSTITUTE OF ADVANCED STUDY Rashtrapati Niwas, Simla-5.

The Institute undertakes organisation, guides and promotes research of a high order in selected subjects in humanities, Indian culture, comparative religions, social sciences, natural sciences, etc. It also assists and associates itself with the efforts made by other academic and/or governmental bodies in the dissemination of knowledge.

INDIAN POLITICAL SCIENCE ASSOCIATION Dept. of Political Science, Punjabi Univ., Patiala.

KAPURTHALA INDUSTRIES ASSOCIATION Factory Area, Kapurthala.

LUDHIANA CYCLE PARTS SUPPLIERS ASSOCIATION

Miller Ganj, Ludhiana 3.

LUDHIANA MACHINE TOOLS MAKERS
GUILD

Link Road, Dholewal Chowk, Ludhiana.

NATIONAL INSTITUTE OF ENGINEERING Hoshiarpur. NATIONAL INSTITUTE OF SPORTS Motibagh, Patiala.

The Institute was set up by the Government of India in 1960 to produce first rate coaches in various games and sports.

NORTHERN INDIA CHAMBER OF COMMERCE & INDUSTRY
Chandigarh.

THE PUNJAB FEDERATION OF INDUSTRY & COMMERCE

Inside Hall Gate, Amritsar.

President: S. P. Virmani; Vice-President: Rishi Ram Aggarwal; Secretary: S. Iqbal Singh Bindra.

PUNJAB PAPER MERCHANTS' ASSOCIATION Guru Bazar, Amritsar.

PUNJAB RADIO TRADE FEDERATION Railway Road, Jullundur City.

SHIROMANI GURUDWAR PARBANDHAK COMMITTEE, AMRITSAR

(Teja Singh Samundri Hall, Amritsar)

It directly manages eleven of the most important and historic Gurudwaras in Punjab, Haryana and Himachal Pradesh including the historic Gurudwaras at Nankana Sahib Dera Sahib (West Pakistan).

The S.G.P.C. also runs Arts, Science and Engineering Colleges and several high schools, hospitals and libraries.

TEXTILE MANUFACTURERS' ASSOCIATION 4, Diwan C. Mehra Road, Amritsar.

UNITED LUDHIANA CYCLE MFRS'. ASSOCIATION Miller Ganj, Gill Road, Ludhiana.

VISHVESHVARANAND VEDIC RESEARCH INSTITUTE

Sadhu Ashram, Hoshiarpur.

A non-denominational centre for post-graduate teaching, research and study in Indology.

VOLLEYBALL FEDERATION OF INDIA 12-A Model Town, Patiala.

## ADMINISTRATIVE PERSONNEL

Chandigarh

(Chief Commissioner, Chandigarh, B. P. Bagchi.)

## Governor Dr. D. C. Pavate.

## Council of Ministers

Chief Minister in Charge of Gen. Adm., Home, Vigilance, Jails, Adm. of Justice, Transport, Tourism, Health and Family Planning, Prakash Singh Badal.

Finance, Food & Civil Supplies, Labour & Employment, Balwant Singh.

Irrigation, Public Works, Rural Electrification & Tech. Edn., Sohan Singh Bassi.

Education and Language, Surjit Singh Barnala.

Social Welfare, Printing & Stationery, Dr. Bhagat Singh.
Agriculture, Radha Krishan.

## Ministers of State

Mohan Singh Tur, Jagdev Singh, Satnam Singh Bajwa, Randhir Singh Cheema, Raja Narendra Singh, Gurmit Singh, Tirlochan Singh Riyasti, Jasdev Singh Sandhu, Harnam Singh, Teja Singh.

## **Deputy Ministers**

Sadhu Singh, Davinder Singh Bajsa, Kartar Singh and Karam Singh.

#### Secretaries

Chief Secretary, A. N. Kashyap, I.A.S.; Financial and Planning Secretary, H. S. Chhina, I.A.S.; Home Secretary, Serla Grewal, I.A.S.; Secretary, Industries, Industrial Training, Food and Supplies, Labour, Employment and Printing and Stationery, V. P. Malhotra, I.A.S.; Secretary, Education, Languages, Sports, Social Welfare, Welfare of Scheduled Castes and Backward Classes and Oultural Affairs, S. S. Bedi, I.A.S.; Secretary, Health and Family

Planning, B. L. Kakkar, I.A.S.; Secretary, Irrigation and Power, Technical Education, Paramjit Singh, I.A.S.; Secretary, Local Government, Housing and Urban Development and Architecture, B. L. Kakkar, I.A.S.; Secretary, Legislative Department, Jasmer Singh; Secretary, Excise and Taxation, Rehabilitation and Relief and Resettlement, C. D. Kapur, I.A.S.

#### Heads of Departments

Director, Information, Publicity, Tourism, Hospitality and Cultural Affairs, and Removal of Grievances, R. C. Kapila; Economic and Statistical Adviser, Jagir Singh Sandhu; Director of Panchayats and Community Development, P. S. Multani; Director of Industries, S. S. Parmar; Director of Food and Supplies, Kosho Ram; Inspector General of Police, Kanwar Shamsher Singh, I.P.S.; Inspector General of Prisons, R. P. Puri; Director of Public Instructions, Parampal Singh; Director, Land Reclamation, Irrigation and Power Research Institute, Amritsar, I. P. Kapila; Director, Health Services, Dr. Harbil Singh; Director, Agriculture, Gursham Singh; Registrar, Co-operative Societies, Kalwant Singh; Director, Social Welfare of Scheduled Castes and Backward Classes, S. S. Parmar; Director of Technical Education, R. C. Aggarwal; Provincial Transport Controllers, R. P. Ojha and Hardial Singh Aujla; Chairman, Public Service Commission, Patiala, Kuldip Singh Virk.

## High Court, Punjab & Haryana

Chandigarh

Chief Justice, Mehar Singh; Judges, Harbans Singh, D. K. Mahajan, P. C. Pandit, Gurdev Singh, Jindra Lal, R. S. Narula, R. S. Sarkaria, H. R. Sodhi, Gopal Singh, B. R. Tuli, A. D. Koshal; Addl. Judges, S. S. Sandhawalia, P. C. Jain, C. G. Suri, Man Mohan Singh Gujral, S. C. Mittal, D. S. Tewatia, B. S. Dhillon; Registrar, B. L. Nagpal.

## RAJASTHAN STATE

CAPITAL: Jaipur. Area: 3,40,230 sq. kms. (Reporting area for land utilisation purposes 1965-66); 3,42,268 sq. kms. (according to Surveyor-General of India).

Population (1961 census): 20,155,602.

Rajasthan is divided into 26 districts, 83 sub-divisions and 195 tehsils,

No. of village panchayats as on 31-12-67: 7,381; No. of panchayat Samities 232. The Village Panchayats cover 34,526\* villages and serve 16,872 thousand people.

\*Includes unpopulated villages.

## DISTRICTS, AREA AND POPULATION

See article on "Population."

#### **MINERALS**

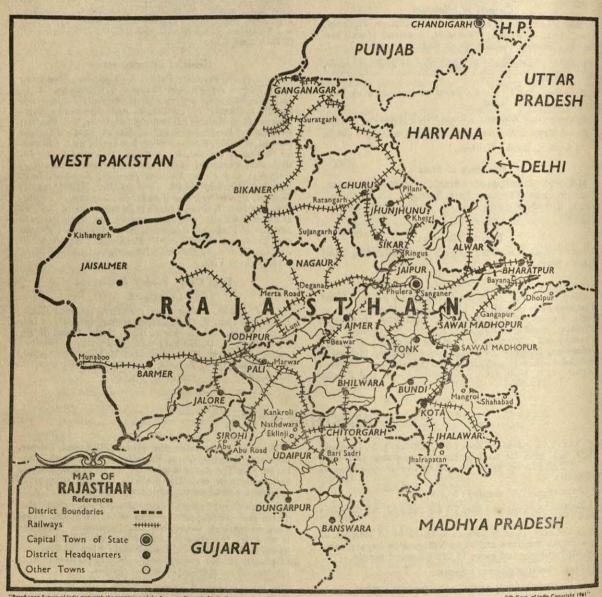
Rajasthan is an important mineral and building material producing State. It ranks next to Bihar in Mica which is chiefly found in Ajmer, Udaipur, Bhilwara and Jaipur Districts. Nearly a lakh persons have been employed in the State mining industry.

The chief non-metallic minerals are Silica sand, Felspar, Asbestos, Barytes, Clays, Emerald, Fuller's earth, Bentonite, etc. The metallic minerals are lead, zinc, iron ore and manganese ore. The State is the sole supplier of gypsum for fertiliser manufacture to Sindri plant.

Lignite (coal) is mined near Palana in Bikaner District. There are vast deposits of high quality building stones such as marbles, sandstones and limestones. Limestone is used for the manufacture of cement at Lakheri and Sawai Madhopur and Chittorgarh and for lime at a number of places. Marble quarries at Makrana in Nagaur District are famous for building stone and statues.

Large resources of sodium sulphate and salt also occur at Deedwana, Sambhar lake and Pachpadra respectively. Uranium deposits have been found at Umra and Udaisagar in Udaipur District.

Provisional production in thousand metric tonnes of some important minerals in 1967; Coal (Lignite) 2·1; Metallic minerals: (a) Ferrous (1) Iron ore nil; (2) Manganese ore 10·2; (b) Non-ferrous (1) Lead concentrate 3·6, (2) Zinc concentrate 8·7, Minerals: Asbestos 6·2; Barytes



5.6; Calcite 6.2; Emerald (crude) 7.7 kg.; Felspar 16.1; Garnet 0.2; Glass sand (N.A.); Graphite 6 tonnes; Gypsum 855.4; Lime stone (for cement making) 1,723.9; Mica (Crude) 4.0; Quartz 14.1; Salenite 5.8; Scap stone 198.2; White clay 283; Yellow Ochre 4.2; Building Materials: Building stone (including Kankar, Bajri and Sand stone etc.) 6,860.5; Lime stone (for Lime making) 679.0, Marble 63.0, Bentonite, 5.7; Fuller's earth 11.7; Brick earth and ordinary clay 865.7.

The State produced minerals worth Rs. 9.21 crores (Provisional) during 1967.

#### **INDUSTRIES**

Among the large-scale industries in the State mention may be made of cotton textile (11 units), cement (2 units), ball-bearings (1 unit) and electric metres (1 unit). The industrial production of some commodities during 1967 was as under:—

Cloth—lakh kg. (N.A.) (619 lakh metres); Yarn—lakh kg. 336; Glass—metric tonnes (N.A.); Cement—lakh metric tonnes 12·8; Salt—lakh metric tonnes 10·1; Ball bearing—lakh number 53·6; Sugar—'000 metric tonnes 8·4@; Foreign spirit—'000 litres 1,089·4†; Rectified spirit—'000 litres 36,79·3‡; Denatured spirit—'000 litres 8·0; Country spirit—'000 litres 1,024·0.

The most important cottage and small-scale industries are tie and dye fabrics, Gota Kinar wooden toys, handmade paper, papier mache toys, gem cutting, cloth printing, manufacture of agricultural tools and implements, embroidered shoes (Jutiyan) and leather bags, water bottles (Badlas) and handloom weaving. From the point of view of employment, khadi and village industries also play an important role in this State.

## **AGRICULTURE**

Land Utilisation: According to land utilisation statistics for the year 1965-66, the total geographical area of the State was 34,023,000 hectares, comprising 1,128,000 hectares under forests, 6,035,000 hectares not available for cultivation, 8,310,000 hectares uncultivated land, 4,418,000 hectares of fallow land and 14,132,000 hectares net area sown. The total cropped area was 14,972,000 hectares, the area sown more than once being 840,000 hectares only.

Agricultural Production:

Main Food Crops of the State: Cereals—Bajra, Jowar, Wheat, Maize, Barley, Small millets, Rice; Pulses: Gram, Tur, other Rabi pulses, other Kharif pulses.

Main cash crops of the State: Oilseeds: Sesamum, Rape and Mustard, Linseed, Groundnut, Cotton, Sugarcane, Tobacco, Chillies, Potatoes.

Area and production of principal food crops in '000 hectares and '000\* metric tonnes respectively for the year 1966-67 were as follows:—

Cereals: Bajra 5,052; 1,236; Jowar 1,116; 340; Wheat 957; 868; Maize 739; 613; Barley 438; 473; Small millets 84; 12; Rice 78; 21.

Pulses: Gram 1,136; 530; Tur 25; 8; Other Rabi Pulses 13; 5; Other Kharif Pulses 1,860; 232.

Oilseeds: Sesamum 719; 63; Rape and Mustard 251; 54; Linseed 51; 8; Groundnut 198; 76.

Others: Cotton ('000 bales of 180 kg. each) 250; 184; Sugarcane 32; 393; Tobacco 6; 4; Chillies 27; 15; Potatoes 2; 4.

Fish: Variety of fish produced: There is a large number of tanks, lakes and rivers in which inland fishes are found. The main species are the major carps, viz.

Rohu, Migal, Kalbasu and Katla; Minor carps, viz. Mahaseer; Cat Fishes: Launchi and Seenghara; Live Fish: Sol, Magur and Singhi.

During the year 1967-68, 282.02 lakh fish seeds were produced and distributed to the private pisciculturists against the stipulated target of 150 lakh fish seeds.

Sugarcane: (In terms of Gur) During the year 1965-66 and 1966-67 the average yield of sugarcane came to 1,651 and 1,219 kg, per hectare respectively.

#### LIVESTOCK

(See article on "Livestock").

## ANIMAL HUSBANDRY

The following figures relate to 1967-68:

Number of Veterinary Hospitals 204; Number of Veterinary Dispensaries 127; Artificial Insemination Centres 29; Key Village Centres 111; Mobile dispensaries 31.

#### LAND REFORMS

By the end of March, 1961, the Jagirdari, Zamindari and Biswedari tenures had been abolished. The Rajasthan Tenancy Act, 1955, has provided for security of tenure and fixity of rent. There are now only four classes of tenants viz., Khatedars, Maliks, Tenant-Khudkasht and Gair Khatedar tenants. Rents have been fixed and forced labour prohibited. Ceilings on existing holdings and on future acquisitions have also been prescribed.

During 1966-67, a sum of Rs. 1.69 crores was paid as final compensation to 38,100 Jagirdars.

The State Government has also taken effective steps for the rehabilitation of ex-Jagirdars and have allotted lands to them at concessional rates in the irrigated area, coming under the command of Bhakra Project.

The Rajasthan Govt. has taken a decision that ceiling on agricultural holdings in Rajasthan will be imposed in one stage instead of four stages as envisaged earlier.

The ceilings prescribed under the Act for a family consisting of five persons is 30 standard acres of land capable of producing 300 maunds of wheat per year or any other produce equivalent in price of wheat. It also provides that if a family consists of more than five persons, every person in addition to five will get additional six acres of land subject to the maximum of 60 acres of land.

## **PANCHAYATS**

The Panchayat Samitis are the executive bodies with wide powers including those for formulating and executing the development programmes, and for imposing taxes. The Zila Parishads are the supervisory and coordinating bodies.

Under this democratic decentralisation, at the end of 1967, there were 7,381 village panchayats and 1,368 Nyaya Panchayats covering 34,526 villages serving the total rural population of the State.

## IRRIGATION

Bhakra Project: The supply in the Bhakra Canals in Rajasthan has become perennial since 1963-64. The total area irrigated during the year 1967-68 was 2.61 lakh hectares.

Jawai Project: The total area irrigated from this project during 1966-67 was 4.9 thousand hectares.

Chambal Project: The cost and benefits are shared with the Govt. of Madhya Pradesh and the project will be completed in three stages (i) Gandhi Sagar Project, (ii) Rana Pratap Sagar Project, (iii) Kota Dam Project. The first stage is over.

<sup>@</sup> Data relate to the Sugar Season July to June 1966-67.

<sup>†</sup> Data relate to the year 1966-67 and are in '000 B. Litres.

<sup>‡</sup> Data relate to the year 1966-67 and are in '000 L. P. Litres.

An area of 1.09 lakh hectares was irrigated during 1967-68.

Rajasthan Canal

The Rajasthan Canal from Harika (Punjab) to Ramgarh (Jaisalmer district) on completion will be 425 miles long and will irrigate 11 ·63 lakh hectares out of the net culturable commanded area of 14 ·92 lakh hectares. The gross commanded area under this project will be 32 ·37 lakh hectares.

In the Annual Plan, provision of Rs. 500·00 lakhs and Rs. 300·00 lakhs was made for the Rajasthan Canal during the years 1966-67 and 1967-68 respectively against which an expenditure of Rs. 497·00 lakhs and Rs. 299·51 lakhs was incurred during the two years. In 1967-68 the expenditure incurred on Rajasthan Canal constituted 36·91 per cent of the total expenditure incurred on irrigation projects in the State. By the end of 1966-67, the work on Rajasthan feeder was completed and of the Rajasthan main canal, work up to first 56·33 kms. was completed. Earth work, excavations and work of distributories were completed at Navrangdesar, Rawatsar, Joraopura, Khetawali and Suratgarh and at Anupgarh branch it was in progress.

Rajasthan Canal will depend on the water of the rivers Beas and Ravi. For ensuring perennial supply, Pong Dam on the Beas is being constructed by the Government of Punjab under the aegis of Beas Control Board. The work is expected to be completed by 1971–72. This is a multipurpose project and is to be completed in two stages — one Pong Dam and another Beas-Sutlej link. During the year 1966–67 and 1967–68 Rs. 339·00 lakhs and Rs. 320·00 lakhs respectively were spent on the project.

POWER PROJECTS

During 1964-65, the installation of one 3,000 kW Turbo-set at Jodhpur was completed. Besides, the installation work of five units of 62 · 5 MW each at Satpura Thermal project in Madhya Pradesh was in progress during 1968. Rajasthan will get about 125 MW of firm power as its share from the project. The fourth unit of 23 MW was commissioned at Gandhisagar during November, 1963 in which Rajasthan is a fifty per cent partner with Madhya Pradesh. The Rana Pratap Sagar Project envisaged installation of four units of which one unit was commissioned in Jan. 1968, and the remaining three are to be completed by 1971. Rajasthan's share in this project would be 86 MW of installed capacity and 45 MW of firm capacity. The work on Beas-Sutlej project is in progress and is likely to be completed during the early Fifth Plan period when the State is expected to get a little over 1.0 lakh kW power as its share. From the Bhakra Nangal Project, the State's share of the installed capacity would be 91.32 MW, being 15.22 per cent of the total.

A network of transmission lines has been spread for supplying power to various corners of Rajasthan. At the end of 1967-68, 116 Km. of 220 KV, 1,389 Km. of 132 KV, 415 Km. of 66 KV, 4,648 Km. of 33 KV and 7,706 Km. of 11 KV lines had been laid in the State. During 1967-68, 100 localities were electrified thus bringing the total localities electrified so far to 1,946. Electric connections had been given to 14,549 wells by the end of 1967-68.

Work on India's second nuclear power station at Ranapratapsagar near Kotah has commenced.

#### CO-OPERATION

(See pages 120 to 122.)

## MEDICAL & PUBLIC HEALTH

For expansion of medical facilities, 232 primary health centres were functioning till the end of 1966. The

number of allopathic hospitals and dispensaries at the end of the year 1966 stood at 329 and 211 respectively. Besides, 18 Ayurvedic and Unani Hospitals with 345 beds and 1,588 dispensaries, were functioning in the State at the end of March 1967. Further details are given below:

Kinds of State Public Hospitals: Figures for 1966; T. B. Hospitals: (i) Sanatorium 4; (ii) Hospitals and Clinics 17; Leprosy hospitals 2; Mental hospitals 2; Isolation Hospitals 2; Other hospitals 298; Dispensaries: 211.

Number of beds: Maternity 1,478; T.B. 1,482; Isolation 289; Leprosy 95; V.D. 45; Mental 305; Eyes 481; General 8,066; Total beds 12,241.

During 1966-67 there were 1,779 Civil Assistant Surgeons, 84 Specialists, 732 staff nurses, 1,482 midwives, 2,967 compounders, 1,061 sanitary inspectors and malaria surveyors, 430 vaccinators, and 226 dais. During 1966-67 there were 18 Ayurvedic and Unani hospitals, 1,588 Ayurvedic and Unani dispensaries; one Yegic centre. During 1966-67 there were 1,782 vaidyas and hakims, 1,550 compounders/nurses and 345 beds.

Patients treated in allopathic institutions in 1966 were: Outdoor 130.37 lakhs, and indoor 6.12 lakhs.

There were five medical colleges: the Sawai Mansingh Medical College at Jaipur; The Medical College, Udaipur; the Medical College, Bikaner; the Medical College, Ajmer and Medical College, Jodhpur during 1967-68.

#### **ROADS & TRANSPORT**

Position in 1966-67: Total length of roads 30,859 km; Cement concrete roads 42 km; Painted roads 10,589 km; Metalled roads 5,837 km; Gravelled roads 6,791 km; Fair weather and dressed up tracks 6,338 km; Total number of motor vehicles (1966) 56,330.

Number of private cars and jeeps 16,940; Private buses 330; Cycles and tricycles 10,195; Taxis, cars and contract carriages 388; Stage carriages 6,087; Public carriers 12,302; Private carriers 2,124; Tractors 7,451; Others 513.

#### LABOUR (1966-67)

Number of registered factories: 1,564 (at the end of 1966). Number of registered Trade Unions in State: 762. Total membership: 111,168.

Industrial Disputes: Disputes 45; Workers involved 7,919; Man-days lost 43,584.

Industry-wise statement on strikes, workers involved and man-days lost respectively during 1966-67:—

Textiles: 4; 3,344; 7,552; Soap Stone 3; 212; 3,586; Municipalities 2; 2,060; 3,080; Chemicals 1; 124; 2,604; Construction 3; 1,400; 9,800; Tailoring establishments 22; 92; 5,520; Woollen mills 2; 65; 495; Metals 2; 21; 19; Bidi 1; 40; 360; Press 1; 38; 266; Carpet 1; 90; 90; Iron & Steel 1; 288; 8,352; Metres (water) 1; 85; 1,020; Engineering 1; 60; 840; Total 45; 7,919; 43,584.

Accidents (enquired into); Fatal 11; Non-Fatal 3,461.
Workmen's compensation: cases decided 268; amount paid Rs. 4.29 lakhs.

Employees' Provident Fund Scheme: No. of factories covered 1,092; Workers benefited 62,137; Contribution from the workers Rs. 85 85 lakhs.

Twenty-four Labour Welfare centres, in places having 500 or more industrial workers, have been established by the end of the year 1966-67.

No. of labourers benefited: 58,929.

No. of children benefited: 30,882.

No. of adults educated: 2,004.

No. of children educated: 4,201.

No. of factories covered by State insurance: 317.

No. of workers insured: 65,000.

Eighteen Employment exchanges were functioning in the State covering all the 26 districts.

Registration during 1967: 1,44,509. Placement during 1967: 14,846.

### EDUCATION, 1966-67

Educational Institutions of all the standards: 32,745. Teachers: 82,460, Students: 26,04,600.

Elementary education is free throughout the State.

Place of language in the education system: Regional language is Hindi which is compulsory. English is compulsory after Standard VI. Hindi is the medium of instruction.

The Rajasthan Government passed on Aug. 21, 1964, the Primary Education Bill which seeks to provide free and compulsory primary education for children in the State.

#### UNIVERSITY OF JODHPUR

Jodhpur

This is a Unitary and Teaching University.

Chancellor: Governor of Rajasthan (ex-Officio); Vice-Chancellor: Prof. V. V. John; Registrar: Sukumar Chakrabarti.

#### University Departments

Faculty of Arts: English, Hindi and Sanskrit, History, Philosophy and Psychology; Faculty of Social Sciences: Economics, Sociology, Political Science and Geography; Faculty of Science: Physics, Mathematics, Chemistry, Zoology, and Botany; Faculty of Commerce: Diploma Courses in Commerce upto post graduate classes. J.D.C. Part I and II; Costs and Works Accountancy and Steno-Typing; Faculty of Engineering: Civil, Structural, Mechanical, Electrical and Mining.

This University also provides facilities for researches in the above subjects.

No. of students 7,076; No. of teachers 425; No. of research students 340.

#### MEDIA OF INSTRUCTION

In the Post-graduate Classes except in Hindi and Sanskrit, generally the medium of instruction is English, while Hindi is the medium upto the Degree level.

### UNIVERSITY OF RAIASTHAN

Jaipur

Chancellor: Governor of Rajasthan; Vice-Chancellor: Dr. P. L. Bhatnagar; Registrar: C. L. Singhal.

Total number of colleges affiliated to the University: 97; Total number of male students in the colleges at the end of the 1968-69 Session: 37,813; Total number of female students in the colleges at the 1968-69 Session was 8,178; Total number of male and female students in the University Departments at the end of the Session: 1,320 and 418 respectively; Total number of male and female students in the University colleges: 4,229 and 1,728 respectively.

## UNIVERSITY OF UDAIPUR

Udaipur

Vice-Chancellor: Dr. G. S. Mahajani, M.A., Ph.D. (Cantab). Registrar: L. R. Shah, M.Com. (Agra).

The University though primarily established to cater to the needs of agricultural education, research and agricultural extension, now provides instruction in other disciplines also. At present the University comprises seven University Colleges and seven Associated Colleges.

The total enrolment of the University for the year 1968-69 was 7,754.

The courses offered are: Pre-University in Arts, Science and Commerce, Pre-Professional (Ag.) proficiency Certificate Course in Sanskrit and Tamil, and Junior Diploma Course in Secretarial and Business Training, Certificate Course in Typewriting, Diploma in Early Childhood Education, B.A., B.Com., B.Sc., B.Sc. (Home Science), B.Sc. (Ag.), B.E. (Ag.), B.V.Sc. & A.H., B.A. (Hons.) M.A., M.Sc., M.Com., M.Sc. (Ag.), M. V. Sc., LL.B., B.Ed., & Ph.D.

A special feature of this University is the adoption of internal grading system in Agricultural wing on the pattern of the Land Grant Colleges of the U.S.A. Semester System of Examination at Post-graduate level in the School of Basic Sciences and Humanities has also been started from the Session 1969–70.

## ASSOCIATIONS

AJMER DISTRICT SMALL INDUSTRIES & HANDICRAFTS' ASSOCIATION Kaxhari Road, Ajmer.

ALL INDIA WOOL TRADE FEDERATION Beawar.

### BANASTHALI VIDYAPITH P.O. Banasthali Vidyapith

All India residential institution imparting all-round education to girls from nursery to post-graduate and research stage with faculties of Arts, Science & Education, and working through its educational effort, for a synthesis of the spiritual heritage and the scientific achievements of the East and the West.

Adhyaksha: Pt. Hiralal Shastri; Upadhyaksha (Praskasan): Smt. Ratan Shastri; Upadhyakshas (Shikasha): Prof. P. N. Mathur and Mantri Diwakar Shastri.

BEAWAR WOOL MERCHANTS ASSOCIATION
Bewari Bazar, Beawar.

BIKANER DISTRICT INDUSTRIES ASSOCIATION Binani Bldgs., Alakh Sagarwell, Bikaner.

BIKANER VYAPAR MANDAL K.E.M. Road, Bikaner.

BIKANER WOOL TRADERS ASSOCIATION Near Daga High School, Bikaner.

CHAMBER OF COMMERCE & INDUSTRY Bharatpur.

THE CHAMBER OF COMMERCE Sadar Bazar, Bundi.

CHAMBER OF COMMERCE Bara Bazar, Udaipur.

EMPLOYERS ASSOCIATION OF RAJASTHAN Podarpuri, Jaipur 6. FEDERATION OF ASSOCIATIONS OF SMALL INDUSTRIES OF RAJASTHAN

Near Shah Bldgs., Sawai Mansingh Highway, Jaipur.

JAIPUR CHAMBER OF COMMERCE AND INDUSTRY

Johari Bazar, Jaipur.

President: Raj Roop Tank; Vice-President: Umraomal Chordia; Hony.-Secretary: Schanlal Sogani.

JAIPUR POWERLOOM OWNERS ASSOCIATION C/o Fatehpuria Cloth Store, Ramgan Bazar, Jaipur.

> JODHPUR INDUSTRIES ASSOCIATION Behind Power House, Jodhpur.

KEKRI WOOL MERCHANTS ASSOCIATION Kekri.

MARWAR CHAMBER OF COMMERCE 5, Haider Bldgs., Sojati Gate, Jodhpur.

PLASTIC INDUSTRIES ASSOCIATION Nimaj House, Jodhpur.

RAJASTHAN ACADEMY OF SCIENCES Birla College, Pilani.

# RAJASTHAN CHAMBER OF COMMERCE AND INDUSTRY

Johari Bazar, Jaipur City.

President: Alok Prakash Jain; Senior Vice-President: Kantikumar R. Podar; Vice-Presidents: Rajroop Tank, S. K. Rungta, Sohanlal Singhania, F. B. Ilavia, Lalchand Kothari; Honorary Secretary: K. L. Jain.

## RAJASTHAN CYCLE MANUFACTURERS' ASSOCIATION

Behind Atish, Gangori Bazar, Jaipur.

RAJASTHAN LALIT KALA AKADAMI 260-D, Bani Park, Jaipur.

RAJASTHAN SANGEET NATAK ACADEMY Paota A-1 Road, Jodhpur.

RAJASTHAN TEXTILE MILLS' ASSOCIATION Durlabh Bhawan, Mirza Ismail Road, Jaipur.

> SARASWATI VIDYAPITH Tipta, Kotah P.O.

STUDY CIRCLE Haldiyon-Ka-Rasta, Jaipur.

UNITED CHAMBERS OF COMMERCE Sadul Memorial Marg, Bikaner.

## ADMINISTRATIVE PERSONNEL

Jaipur

#### Governor

HUKAM SINGH

## Ministers

Chief Minister in Charge of Appointments, General Adm., Political, Cabinet Secretariat, Mohan Lal Sukhadia.

Planning, Finance, Taxation, Excise, Mathurdas Mathur. Home, Civil Defence, Damodar Lal Vyas.

Industries and Civil Supplies, Mines and State Enterprises, Harideo Joshi.

Labour, Medical and Health, Devasthanam and Bhasha Vibhag, Brij Sunder Sharma.

Revenue, Ex-Soldiers, Ram Kishore Vyas.

Food, Famine Relief, Panchayat Raj and Community Development, Paras Ram Maderna.

Law, Judicial, Legislative Assembly, Wagfs, Linguistic Minorities, Jails and Power, Barkatullah Khan.

Public Works, Printing Presses and Stationery, Aminnuddin Ahmed.

Forests, Elections, Economic Survey and Statistics, Narain Singh Masuda.

Agriculture and Colonisation, Shobha Ram.

Local Self Government, Town Planning, Housing, Public Health, Bhikha Bhai.

Irrigation, Rajasthan Canal Project and Transport, Ram Prasad Laddha.

Co-operation, Amrit Lal Yadav. Education, Shiv Charan Mathur.

#### Ministers of State

Major Irrigation, Rajasthan Canal, Colonisation, Animal Husbandry, Manphool Singh; Medical and Health, Public Health, Family Planning, Smt. Sumitra Singh; Public Relations, Home and Tourism, Heera Lal Devpura; Relief and Rehabilitation, Ayurved and Finance, Jai Krishan Sharma; Social Welfare, Finance (Comm. Taxation, etc.), Economic Survey and Statistics, B. N. Joshi.

#### **Deputy Ministers**

Education, Raodheer Singh; Revenue, Famine Relief, Ganga Ram Chaudhary; Planning, Power, Jails, etc., Khet Singh; Co-operatives, Food, Elections, Devasthanam, Ram Deo Singh; Panchayati Raj etc., Smt. Prabha Mishra; Industries, Mines, Civil Supplies, Bhim Sen; Agriculture, Animal Husbandry, Hari Singh Bagu; Public Works, Madho Singh; Appointment, Gen. Adm. & State Enterprises, Pradyuman Singh; Excise, Printing Presses & Stationery, Shiv Charan Singh; Forests, Khadi and Village Ind., Kanhyya Lal; Social Welfare and Labour, Ram Charan; Transport and Ayurveda, Samarth Lal; Colonisation, Taxation, Brij Prakash Goyal; Minor and Medium Irrigation, Jasraj; Major Irrigation, Gurdip Singh.

#### Secretariat

Chief Secretary, Cabinet, Planning, Statistics, G.A.D., Appointment, etc., Z. S. Jhala, I.A.S.; Secretary, State Enterprises, G. L. Mehta; Secretary, Food & Civil Supplies, C. S. Gupta; Secretary, Finance, M. Mukherji; Secretary, Agriculture, Animal Husbandry & Cooperation, S. P. Singh Bhandari; Secretary, Home, Police, Transport, etc., V. D. Sharma; Secretary, Irrigation & Power, Public Works and Education, J. S. Mehta; Secretary, Medical and Health and Labour, B. Hooja; Secretary, Industries, Civil Supplies and Mines, D. K. Saxena; Secretary, Town Planning and Social Welfare, R. K. Saxena, Secretary, Revenue, Forests, etc. K. L. Baraya; Secretary, Law & Leg. and Legal Remembrancer, Durga Shanker Acharya.

Principal Officers

Administrator, Rajasthan Canal Board, Bhim Singh; Inspector-General of Police, Sultan Singh Rathore; Inspector-General of Prisons, A. S. Ranawat; Director of Medical and Health Services, Dr. S. I. Arya; Director of Animal Husbandry, Dr. D. R. Bajaj; Director of College Education, R. S. Kapoor; Additional Director of Primary and Secondary Education, Hari Mohan Mathur; Director of Technical Education, B. K. Jain; Director of Agriculture, K. M. Mehta; Director of Industries, T. V. Ramanan; Chief Conservator of Forests, G. K. Bora; Labour Commissioner, N. K. Joshi; Registrar, Co-operative Societies, M. M. K. Vali; Director of Economics and Statistics, L. K. Verma; Director of Public Relations, R. S. Bhatt; Director of Tourism, Narain Singh; Labour Commissioner, N. K. Joshi; Director of Social Welfare, B. S. Joshi; Director of Transport, S. R. Jain; Director of Employ-

ment, V. D. Sharma; Chairman, Public Service Commission, Vivek Marg, Ajmer, R. S. Choudhary.

## High Court

Jodhpur

Chief Justice, Jagat Narayan; Judges, Lakshmi Narayan Chhangani, Chandra Bhan Bhargava, Bhagwati Prasad Beri, Prakash Narain Shinghal, Ved Pal Tyagi, Khan Singh, Lehar Singh Mehta, Chand Mal Lodha (Addl.), Sohan Nath Modi (Addl.), Ranchhor Das Gattani (Addl.); Registrar, S. P. Mehra; Advocate-General, Gulab Chand Kasliwal.

## TAMIL NADU

CAPITAL: Madras. Area: 129,901 Sq. Km. Estimated population of the State in 1970: 39,329,600. Rate of increase in population (based on experimental growth rate): 1.77 per cent per annum. Average density of population per Sq. Km.; 303 persons. Percentage distribution of population according to educational levels (1961): Illiterates 68.59; without educational level 21.46; Primary 7.63; Matriculation and above 2.32.

## (For more details see article " Population.")

No. of Villages in the State (1961): 14,124; Villages uninhabited: 615; No. of towns in the State: 339.

Districts with District headquarters in brackets: Madras (Madras), Chingleput (Kanchipuram), South Arcot (Cuddalore), Thanjavur (Thanjavur), Madurai (Madurai), Ramanathapuram (Tallakulam at Madurai), Tirunelveli (Tirunelveli), North Arcot (Vellore), Salem (Salem), Tiruchirapalli (Tiruchirapalli), Coimbatore (Coimbatore), Nilgiris (Ootacamund), Kanyakumari (Nagercoil), Dharmapuri (Dharmapuri).

Languages spoken: Tamil, Malayalam, Telugu. The vast majority of the people is of the Dravidian race.

There are on the whole 375 Panchayat Union Councils. The total number of Panchayats in the State is 12,344.

Local Administration: The Units of Local Administration comprise (\*) Madras City Municipal Corporation for Madras District, (\*i\*) Municipalities for major towns: 84, (\*i\*i) Townships for special localities like Mettur, Bhavanisagar, Courtallam and Kodaikanal, which are industrial areas, institutional or labour colonies or health resorts, (\*i\*v) Panchayat Unions at Development Block Level and (\*v) Panchayats for minor towns and villages. The Madras City Municipal Corporation Act 1919 governs the Madras Municipal Corporation in the Madras District and the Madras Municipalities Act governs the Municipalities in other Districts. The townships are governed by special provisions.

Official Language: Tamil is now the official language of correspondence in all the Departments of Government upto the district level.

Judiciary: Tamil Nadu has completely separated the judiciary from the executive.

#### FORESTS (1968-69)

Area of reserved forests 17,264 sq. kms.; Percentage of area of reserved forests to total land area of State 13·2; Area of reserved lands 3,732 sq. kms.; Output of timber 42,283 cubic metres; Quantity of fuel extracted 3,70,361 m. tonnes; Quantity of sandalwood extracted 1,655 m. tonnes.

#### LIVESTOCK

(1966 census):

Total Cattle 10,859,345; Buffaloes 2,724,107; Bovine 13,583,362; Livestock 24,568,961; Poultry 11,225,890.

#### INDUSTRIES

Chief Industries in this State are textiles, general and electrical engineering, automobile, sugar, cement, tobacco including bidi and cigar manufacture, bricks and tiles, tanning, glassware, chemicals, bicycles, leather and footwear and manufacture of utensils.

#### Cotton Textiles

No. of textile mills: 181; No. of spindles: 40,49,952; No. of looms: 9,346; Production of yarn: (1968) 8,32,705 bales; Average number of workers employed in the mills—1,20,873.

#### Sugar

There are 15 sugar mills of which six are in the cooperative sector and nine in the private sector with a production of 187,707 tonnes during 1967-68. One cooperative sugar mill in Dharmapuri district with a capacity of 1,250 tonnes a day is in a formative stage.

### Cement

The Tamil Nadu Cements at Alangulam, envisages a production capacity of 400,000 tonnes per annum. A Pilot Cement plant for the manufacture of cement on small scale basis near Kalkudi produces 30 tonnes per day.

The six private sector cement plants produced 1,981,754 tons of cement during the year 1968.

#### Bicycles

The bicycle unit turned out 4,00,134 cycles during 1968. There are four factories to produce cycle parts in the City.

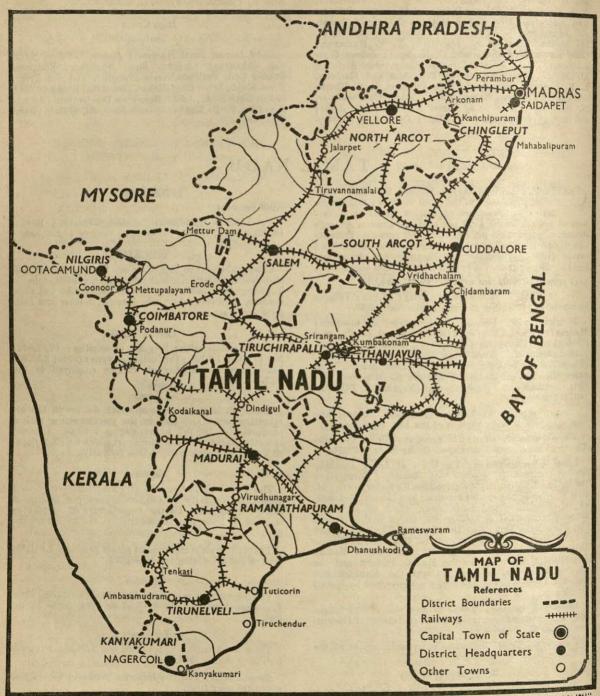
### Fertilizers

There are 8 units which turned out 2,56,951 tonnes of fertilizers during 1968.

Caustic Soda: The two factories produced 69,819 tonnes in the year 1968.

## EMPLOYMENT IN INDUSTRIAL SECTOR

The total number of factories registered and notified under the Factories Act 1948 in commission at the end of the year 1968 was 5,746.



"Based upon Survey of India map with the permission of the Surveyor-General of India."

"O Govt. of India Copyright 1961"

Handloom (Co-operative Societies): Number of Cotton looms in the Co-operative Societies in the State during 1966-67 was 5·16 lakhs. There were 1,072 Weavers' Co-operative Societies and the number of weavers was 2,31,441. These Co-operative Societies together produced 522 million yards of cloth worth Rs. 78 crores during 1966-67. The wages paid per annum was Rs. 4 crores.

In the field of large-scale industry, public undertakings in the Central Sector figure prominently. The aggregate capital investment in these projects up to the end of 1968 was of the order of Rs. 371 crores. During the year 1968, all the projects have progressed according to schedule.

For details on the following projects, see under the respective notes (Refer General Index for page number): Integral Coach Factory, Perambur, Neyveli Lignite Corporation, Neyveli, Hindustan Photo Films, Ootacamund, Hindustan Teleprinters, Guindy, Surgical Instruments Plant.

#### SMALL-SCALE INDUSTRIES

In the interest of the commercial working of the production units and some of the servicing centres, the Government have set up the Madras State Small Industries Corporation, Limited with an authorised capital of Rs. 10 crores. (See State Corporations for further details.)

During 1966-67, the establishment of six conventional Industrial Estates at Kancheepuram, Mettur, Karur, Namakkal, Nagapattinam, Cuddalore and Hosur had been sanctioned and they are being implemented.

Functional and Ancillary Industrial Estates: During the Third Five-Year Plan, two functional industrial estates, one for ceramics at Vridhachalam and another for leather at Madhavaram were established. For locating small-scale units for manufacture of different components, parts and stores required for the Heavy Pressure Boiler Plant at Tiruchirapalli, an ancillary industrial estate was established at Triuvarambur. During 1966-67, the Government had sanctioned the establishment of one functional industrial estate for food and fruit based industries (at Bathalakundu in Madurai district) and of another functional industrial estate for Electrical Industrial estates for instrument industry, electronic industry and drugs and pharmaceutical industry had also been sanctioned in 1967-68 for implementation.

The construction of the Ancilliary Industrial Estate sanctioned for Vandalur has been completed. Another Ancilliary Industrial Estate has been sanctioned to be set up at Ootacamund near the Hindustan Photo films factory. The scheme is being implemented.

Private and Co-operative Industrial Estates: For setting up seven private and co-operative industrial estates the Government have provided loan assistance to the tune of Rs. 108-79 lakhs up to 31st March 1968. In the above estates 104 factory units have been constructed.

#### KHADI

The Tamil Nadu State Khadi and Village Industries Board is a statutory body.

The production and value of Khadi during 1967-68 were 31,74,329 metres and Rs. 143.39 lakhs respectively. Employment during 1967-68 was 93,034 spinners and weavers. The wages for 1967-68 amounted to Rs. 70.84 lakhs.

### **AGRICULTURE**

The figures furnished below relate to the year 1967-68 and 1968-69 and are provisional.

Classification of area (Thousand Hectares) during 1967–68: Forest 1,924; Barren and uncultivable land 870; Land put to non-agricultural uses 1,367; Cultivable waste 631; Permanent pastures and other grazing lands 337; Land under miscellaneous tree crops and groves not included in the net area grown 274; Current fallows 930; Other fallow lands 596; Net area grown 6,083; Area of the State according to village papers 13,011; Area sown more than once 1,226.

The principal commercial crops of the State showing area in thousand hectares and yield in thousand tonnes respectively under cultivation in 1968-69 were: Groundnut 883; 837; Cotton (bales of 180 kg. limits) 282; 256; Gingelly 99: 31; Paddy 2,560; 3916 (in terms of rice); Millets and other Cereals 1,806; 1,345; Sugar Cane 101; 889 (in terms of gur).

The average production during the three Annual Plans (1966-69) was one of the order of 54·45 lakh tonnes. This was lesser by 1·07 lakh tonnes than the average level for the Third Plan, owing to unfavourable seasonal conditions especially in 1968-69 which was a year of drought. Substantial increase in food grains production, especially in rice production was expected during 1969-70.

Multiple Cropping Programme: A target of 12 lakh acres has been set for coverage under the multiple cropping programme during 1970-71 which envisages the introduction of short-term crop varieties to enable the raising of an extra crop in the assured irrigation areas.

Cotton and Oil Seeds: Average production of cotton during the triennium ended 1968-69 was 3·33 lakh bales of 180 kg. lint, and that of oil seeds (groundnut, gingelly and castor) for the same period was 8·96 lakh tonnes.

Plantation Schemes: The important schemes of economic plantations undertaken during the Third Plan period relate to rubber plantations in Kanyakumari district, bamboo plantations in Coimbatore district and quick growing fuel plantations in the districts of Chingleput, South Arcot and North Arcot. Rubber plantation of 829 acres (1964-65), 820 acres (1965-66), bamboo plantations of 1,097 acres (1964-65), 3,988 acres (1965-66) were covered by the scheme.

Land Ceiling: On April 9, 1970 the Tamil Nadu Assembly passed the Bill lowering land ceiling from 30 standard acres to 15 standard acres effective from February 15, 1970.

#### **FISHERIES**

Estimated landings of inland fish from the various inland waters in 1968-69: 1,20,200 tonnes of the value of Rs. 775·35 lakhs. Estimated marine fish landings for the State in 1968-69: 2,16,300 tonnes of the value of Rs. 2420 lakhs.

#### IRRIGATION

Source and area irrigated (Hectares) during 1967-68\*: Government Canals 8,91,730; Private canals 1,291; Tanks 9,89,722; Tube wells 6,318; Wells, sole irrigation 6,91,875; Other sources i. e. springs, channels etc. 47,647. Total net area irrigated 2,628,583.

There has been a progressive increase in the area irrigated. The net area irrigated increased by 7·74 lakh hectares. During the same period, the gross area irrigated showed an increase of 12·91 lakh hectares or by 52·8 per cent. There was a setback in 1968–69, owing to severe drought. The levels of area irrigated in 1969–70 was expected to be substantially higher than those in 1967–68.

<sup>\*</sup> Provisional.

## Major Projects

Major Projects with location (Districts), estimated cost in Rs. lakhs and area benefited in acres in brackets respectively are: Lower Bhavani Project (Coimbatore and Tiruchi Districts: 1,034; 1,95,000); Mettur Canals Scheme (Salem and Coimbatore Districts: 192·91; 45,000); Manimuthar Reservoir Project (Tirunelveli District: 505; 1,03,000); Araniar Reservoir Project (105·89) Headworks of the Project transferred to Andhra State; Amravathi Reservoir Project (Coimbatore District: 324·14; 53,500); Vaigai Reservoir (Madurai and Ramanathapuram Districts: 330·00; 22,818); Sathanur Reservoir Project (North and South Arcot Districts: 258; 21,000); Krishnagiri Reservoir Project (Dharmapuri District: 202·43; 9,000); New Kathalai High Level Canal (224·58; 20,622); Pullambadi Canal Scheme: (205·88; 22,114); Vidur Project (88·94; 3,200); Pondicherry figures not available; Neyyar II Stage (109·06; 5,800).

During the III Five Year Plan, four new schemes were taken up viz. (i) Improvements to Palar Anicut System (2) Sathapur II Stage (3) Gomuki Nadhi Scheme (4) Chittar Pattanamkal Scheme in addition to the Parambikulam-Aliyar Project. Of these, the first three schemes were completed within the plan period itself. The latest stage and salient details of the Chittar Pattinamkal Scheme and the Parambikulam Aliyar Project are furnished below:—

Parambikulam-Aliyar Project: The project, started in Dec. 1958 and expected to be completed during the IVth Plan, envisages the construction of seven reservoirs and 14 miles of tunnelling, a weir, 33 miles of lined contour canal and 152 miles of line main canal. The reservoir across Parambikulam and Tunakadavu (including Peruvaripallam and Tekkadi) will be in Kerala State, while the rest will be in Tamil Nadu. The project will extend irrigation facilities to 240,000 acres in Pollachi, Udumalpet, Palladam and Dharapuram Taluks of Coimbatore District. Power to an extent of 185,000 KW will be generated under this project.

The project is estimated to cost Rs. 6,753·00 lakhs. Percentage return: 4·91 without betterment levy.

Benefits achieved to end of March 1968: Potential 147,276 acres; Utilisation 68,912 acres.

Chittar Pattanamkal Scheme: The scheme envisages:

(1) Construction of two dams (with inter-connecting channel) across two Chittar tributaries of river Kodayyar (1) 2,500′ long, 72′ high, and 555 Mcft capacity; (b) 3,530′ long 82′ high and 964 Mcft capacity. (2) Raising the F.R.L. of Pechipara and Perunchani Dams by 6 ft. by providing gates to increase the capacity of 4,530 Mcft and 2,890 Mcft respectively. (3) Excavating a feeder canal from Chittar Dam I to augment supply to the existing Kodayar Left bank canal. (4) Excavation of a new Pattanamkal channel. (5) Extending and improving the two channels taking off from Thirupparappu weir on Kodayar river. (6) Improvements to Pandya Kal, Thovala and Nilapparai channels in certain reaches and excavation of another channel from Nilappara channel. (7) Improving and lining left bank canal of Kodayar system to take the additional flow diverted from the two Chittar dams.

It is expected to be completed during the Fourth Five Year Plan.

Estimated cost: Rs. 733 lakhs; Percentage return: 0.75; Ultimate benefit: 47,000 acros.

## Minor Irrigation

There are 33,000 minor irrigation sources in the State, out of which 27,000 are tanks and 6,000 spring channels. Of these sources, about 30,000 have an ayacut of more than 10 acres.

The expenditure incurred on the works in the annua plans of 1966-67 and 1967-68 was about Rs. 831 lakhs. The total number of works renovated was 2,347.

During the Fourth Five Year Plan it is proposed to take up 3,500 works to be renovated at a cost of Rs. 1,300 lakhs. The additional extent of new irrigation is 1,24,000 acres and after stabilisation 2,94,000 acres and the additional food production will be 98,750 tons.

In 1969-70 about 600 works were proposed to be taken up at a cost of Rs. 224.90 lakhs.

Desilting-cum-Reclamation: The expenditure incurred on these works in the annual plans of 1966-67, 1967-68 and 1968-69 was about Rs. 34 lakhs.

During the 4th Plan it is proposed to take up 50 works to cover 2,500 acres gap to be bridged and 1,250 acres of foreshore reclamation at an estimated cost of Rs. 60 lakhs.

In 1969-70 about 10 works were proposed to be taken up to cover 500 acres gap to be bridged and 250 acres of foreshore reclamation.

#### ELECTRICITY

Total capital outlay of the power schemes as on 31-3-1969: Rs. 357·77 crores; Gross Revenue: Rs. 50·22 crores. Number of workers employed as on 31st March, 1969: 66,264.

Installed capacity in MW and generation in million units (as on 1-10-1969) of different hydro-electric projects: Pykara 70; 293·327; Moyar 36; 122·225; Mettur 40; 95·882; Mettur Tunnel 200; 465·549; Papanasam 28; 132·423; Periyar 140; 449·238; Kundah I 60; 263·071; Kundah II 175; 631·266; Kundah III 120; 365·882; Kundah IV 50; 121·849; Kundah V 20; 51·101; Serkarpathy 30; 63·308; Samayanallur Madurai 14; 25·246; Basin Bridge, Madras 87; 272·154; Power pruchased: Neyveli 500; 1,772·764; Mysore (—); 106·670; Kerala (—); 28·063.

Rural Electrification: Number of towns and villages and hamlets electrified as on 1st October, 1969: 33,123.

Number of Agricultural pumpsets connected: 4,40,789. This figure does not include licences during the year 1969-70.

Power consumption in 1968-69 (April to February) (Million units): Domestic light including small power 192·535; Commercial 224·399; Public lighting 44·446; Industrial 2080·730; Agricultural 1073·617; Traction including Railways 63·359; Bulk supply to licensees 415·792; Departmental works and projects 30·749; Sales to other States 106·770; Other miscellaneous sales 14·430.

#### ROADS

As on 1st April, 1969: (Kilometres).

Government Roads: National Highways 1,800; State 1,757; Major District Roads 13,512; Other District Roads & Village roads 8,184.

Roads maintained by local bodies: Panchayat Union & Panchayat roads 36,814.

Roads maintained by municipalities and Public Works Department 6,805; Length of road per sq. km. area 0.53 km.; Length of road per 1,000 of population 1.78 km. Motor vehicles on road (as on 31st March, 1969): Goods vehicles 15,186; Stage carriages 7,640; Contract carriages, 9,019; Motor Cycles 27,584; Motor Cars and Station Wagons 49,959; Others 7,861; Total 117,249.

#### TRANSPORT

The Bus Transport in Madras City is Government owned. Position as on 31-12-1969: Fleet Strength: 1,666; Scheduled number of services: 1,416; Total number of routes: 494; Total route mileage 32,220; Scheduled daily mileage: 2,41,866; Average number of passengers carried per day: 10,40,000; Average number of passengers carried per day on Kanyakumari Branch: 2,07,100.

## COMMUNITY DEVELOPMENT

As on 30th September 1969; Development districts 23; Panchayat Unions 374; Number of Blocks — Stage I Nil; Stage II 189; Post Stage II 185; Total: 374. Area covered by the Blocks (in '00 sq. km.) 1,077; Revenue Villages covered 17,315; Town Panchayats 536; Village Panchayats 12,344; Population covered (1961 census) 272 lakhs; Blocks implementing Tribal Development scheme 2; Rural Man-power Programme 72; Applied Nutrition Programme 14.

### CO-OPERATION

The tentative outlay for the co-operative development schemes for the Fourth Five Year Plan (1969-70 to 1973-74) is Rs. 2,872·32 lakhs under the State Plan Schemes and Rs. 112·45 lakhs under the Centrally sponsored Schemes outside the State Plan Ceiling. The allotment for 1969-70 was Rs. 566·93 lakhs under the State Plan Ceiling and Rs. 70·30 lakhs under the Centrally Sponsored Schemes.

It is proposed to step up the issue of production credit to the agriculturists year by year so as to issue loans through agricultural credit societies to the extent of Rs. 80 crores in the last year of the Fourth Five Year Plan. This will meet about 50 per cent of the total credit requirements for agricultural production in Tamil Nadu. It is also proposed to issue long term credit through Land Mortgage Banks to the extent of Rs. 106 crores during the entire Fourth Plan period.

Under the scheme of reorganisation of agricultural credit societies it is expected that out of about 8,600 agricultural credit societies, about 4,800 viable units will emerge. The Co-operative Central Banks will open additional branches so as to have one branch per Panchayat Union.

#### **EDUCATION**

Number of institutions and Students (Boys and Girls) respectively as on 1-4-1969: Primary schools including basic schools but excluding upper primary schools: 25,637; 1,917,141; 1,401,918; Upper Primary Schools including Senior Basic Schools and middle schools: 6,013; 1,205,407; 838,153; Indian High Schools: 2,469; 986,467; 445,208; Anglo Indian Schools: 44; 13,409; 13,026; Matriculation Schools 19; 5,084; 7,409; Public Schools: 2; 953; 119; Central Schools: 9; 2,960; 1,795; Others: 25; 3,812; 1,067; Arts and Science Colleges: 139; 98,308; 31,207; Professional Colleges (Physical Edu. Colleges): 3; 528; 253; Training College & Spl. Education Institutions: 23; 1,595; 1,059; Central College of Karnataka Music: 1; 23; 85; Rural Colleges: 2; 482; 80; Engineering Colleges: 8; 5,264; 36; School of Social Work: 1; 48; (—); Polytechnics 25; 10,035; (-); Polytechnics for women: 3; -); 640; Special Institutions: 6; 835; (-); Technical High Schools: 15; 1,895; (-).

Amount provided in Rs. lakhs for Education in the Budget for 1969-70:

Total for the State: 6,538·77; For Primary Education 2,800·91; For Secondary Education 1,938·55; For Special Education 115·77; For general Education 722·12; For Development schemes 383·16.

(Source : Director of Statistics, Madras).

## FOURTH FIVE YEAR PLAN

(See under main article)

## THE CORPORATION OF MADRAS

Ripon Buildings, Madras 3.

Mayor, Velur D. Narayanan, M.A. B.L. Dy. Mayor, K. Govindaswamy. Commissioner, K. J. M. Shetty, I.A.S.

Total number of elected members: 120. Total number of co-opted members: 6.

Party position in the Corporation Council: Dravida Munnetra Kazhagam 54 + 6; Congress Municipal Party 52; Muslim League Municipal Party 7; Swatantra Party 3; C.P.I. 1; C.P.I.(M) 1; Tamil Arasu Kazhagam 1; Toilers Party 1.

## Budget 1969-70

Revenue	 	-		Rs.	10,84,44,000
Expenditure			- 0	Rs.	11,50,00,000

### COIMBATORE DISTRICT

Dt. Hqrs. : Coimbatore.

The Coimbatore District, next in importance to the City of Madras, has an area covering 6,024 square miles with a population of 3,154,296. It is one of the major districts in Tamil Nadu. The Anamallais (elephant hills) which form part of the District in the south have large coffee and tea plantations covering 40,000 acres and employing 40,000 workers whose annual wage bill is nearly Rs. 3 crores. Some 35 million lbs. of tea and 1,000 tons of coffee are produced. There are also cardamom and cinchona plantations. The finest teak in India is produced on these hills.

Coimbatore, the District Headquarters, is the largest industrial city in Tamil Nadu. The district has 71 textile mills, 57 of which are spinning mills and the rest weaving mills

There are also a number of iron foundries, Coimbatore being the first in India to manufacture pump-sets for irrigation. A medium sized blast furnace is in operation. A cement factory of the A.C.C. produces 1,500 tons a day.

A branch of the Asbestos Cements Ltd. is also located at Podanur.

The 22-lakh synthetic gem factory, which is an Indo-Swiss venture, hopes to meet the full demand for synthetic gems, which are now being imported, producing in the first year alone gems valued at Rs. 20 lakhs.

The Rs. 10-crore Indo-Italian venture, South India Viscose Ltd., four miles from Mettupalayam, manufactures rayon pulp.

Another Rs. ten-crore venture with Italian aid is an aluminium factory at Mettur on the banks of Cauvery. A third is an Indo-American Venture—Rs. 10-crore paper factory at Erode.

Two factories are engaged in the production of textile machinery and parts. The ultimate plan of the factories is to manufacture all modern equipment required for textile industry.

Three factories in Coimbatore produce nut and plastic buttons.

The Regional Agricultural Research Institute caters to the needs of Tamil Nadu, Kerala, Mysore and Andhra Pradesh and is open to 40 post-graduates. The institute awards the highest degrees of M.Sc. (Ag.) and Ph.D. to successful candidates.

Other specialised institutions are the Union Government's Sugarcane Breeding Institute, the Southern Herbarium of the Botanical Survey of India and the Regional Research Station of the Indian Council of Agricultural Research for cotton, millets and oilseeds.

## EDUCATIONAL INSTITUTIONS IN TAMIL NADU

#### UNIVERSITY OF MADRAS

Chepauk, Madras 5.

It is a Teaching and Affiliating University.

Laboratories for research in Zoology, Botany, Physics, Geology, Organic Chemistry, Biochemistry, Physical Chemistry and Textile and Chemical Technology, are provided. There are also Departments of study and research in the following subjects: Anthropology, Indian History and Archaeology, Indian Economics, Indian Philosophy, Psychology, Mathematics, Statistics, Geography, Politics and Public Administration, Social Sciences, Constitutional and International Law, Management Studies, Sanskrit, Tamil, Telugu, Kannada, Malayalam, Hindi, Arabic, Persian and Urdu, and Indian Music.

Degrees: B.A., M.A., M.Litt., Ph.D., D.Litt., B.L., M.L., B.Sc., M.Sc. (by Exam.), M.Sc. (by thesis and Exam.), Ph.D., D.Sc., B.E., M.Sc., Engg., B.Com., M.Com., B.Sc. (Ag.), M.Sc. (Ag.), B.V.Sc., M.V.Sc., M.B., B.S., M.D., M.S., B.S.Sc., B. Pharm., B.D.S., B.Sc., (Nursing), M.A. Criminology and Forensic Science, B.Sc. (Tech.), B. Tech., M. Tech., B.T., M.Ed., B.Sc., (Home Science), B.Li, Sc., B.Arch, M.A. Science), M.Sc. (Home Science), B.Lib. Sc., B.Arch., M.A. Social Work, B. Phy. Education.

Diplomas: Gynaecology and Obstetrics, Venereology, Dermatology, Ophthalmology, Oto-Rhino-Laryngology, Radiology, Orthopaedics, Tuberculosis, Child Health, Clinical Pathology, Anaesthesia, Radio Therapy, Radio Diagnosis, Archaeology, Anthropology, Modern European Languages (French, German and Russian), Journalism, Physical Education, Social Service, Analytical Chemistry, Horticulture, Economics, Politics and Public Administration, Indian Music, Connection, Statistics ministration, Indian Music, Co-operation, Statistics, Geography and Business/Industrial/Management, Criminology and Forensic Science, Theoretical Physics, Molecular Bio-physics, Mycology, Plant Pathology and Zoology.

Oriental Titles: Siromani, Vidvan, Afzal-ul-Ulama, Munshi-i-Fazil, Adib-i-Fazil, Sangita Siromani.

Chancellor, Governor of Tamil Nadu.

Pro-Chancellor, Minister for Education, Tamil Nadu.

Vice-Chancellor, N. D. Sundaravadivelu. Registrar, Syed Yakub.

Total number of Colleges (Arts and Science 90).

Professional Colleges: 33.

Oriental Title Institutions: 18. Matriculation Schools: 24.

#### MADURAI UNIVERSITY

Madurai.

There are 56 Arts and Science Colleges and 21 Professional Colleges.

Vice-Chancellor, Prof. T. P. Meenakshisundaran.

Registrar, R. Perumal.

Deputy Registrar, S. Santanagopalan.

## ANNAMALAI UNIVERSITY

Annamalainagar P.O., South India.

Chancellor, Governor of Tamil Nadu. Pro-Chancellor, Dr.

Rajah Sir M. A. Muthia Chettiar.

Vice-Chancellor, Dr. S. P. Adinarayan.

Registrar, P. A. Sitapati.

Total number of students in the University 6,150.

The medium of instruction is English.

## ASSOCIATIONS

ACADEMY OF TAMIL CULTURE Madras 7.

ADYAR LIBRARY & RESEARCH CENTRE Adyar, Madras 20.

AGRI-HORTICULTURAL SOCIETY OF MADRAS 18, Cathedral Road, Madras 6.

ALL INDIA ANGLO INDIAN ASSOCIATION 20, Ritherdon Road, Madras 7.

ALL-INDIA CARROM FEDERATION 28, Second Line Beach, Madras 1.

ALL INDIA CHESS FEDERATION 317, Thambu Chetty St., Madras 1.

ALL INDIA COFFEE MERCHANTS' ASSOCIATION 22/48, 49, Raja Street, Coimbatore.

ALL INDIA HUMAN HAIR EXPORTERS AND

DEALERS ASSOCIATION 15/1, Second St., Gopalapuram, Madras 6.

ALL INDIA MANUFACTURERS' ORGANISATION (Tamil Nadu Board)

7/15, Haddows Road, Nungambakkam, Madras 6.

ALL INDIA RADIO MERCHANTS' ASSOCIATION 22, General Patters Road, Madras 2.

ALL INDIA RAILWAYMEN'S FEDERATION Madras 4.

AMBATTUR INDUSTRIAL ESTATE ASSOCIATION Industrial Estate, Ambattur, Madras 58.

ANDHRA CHAMBER OF COMMERCE 272/73, Angappa Naick Street, P.B. 1511, Madras 1.

Also at 68-B, Rashtrapathi Road, Secunderabad.

President: Rasiklal M. Mehta; Vice-Presidents: Y. Venkanna Choudhary, T. S. Krishnamurthi, J. Balakrishnamurthi; Treasurer: C. Audiseshu; Secretary: M. S. Sambasiyam.

> ANDHRA MAHILA SABHA Luz Church Road, Mylapore, Madras 4. Vidyanagar, Hyderabad.

ARTS ACADEMY 42, Purasawalkam High Road, Vepery, Madras 7.

ASSOCIATION OF ELECTRICAL UNDERTAKINGS, SOUTHERN INDIA 20, Second Line Beach, Madras 1.

ASSOCIATION OF PLANTERS OF TAMIL NADU 'Canowie', Coonoor.

AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA 38-A, Mount Road, Madras 6.

BHARAT SCOUTS AND GUIDES State Headquarters: "Wenlock Park", South Beach Road, Triplicane, Madras 5.

BIBLE SOCIETY OF INDIA AND CEYLON (MADRAS AUXILIARY) Post Box 502, Park Town, Madras 3.

BOOKSELLERS & PUBLISHERS ASSOCIATION OF SOUTH INDIA

C/o Higginbothams Pvt. Ltd., 165, Mount Road, Madras-2.

BRICK & TILE MANUFACTURERS ASSOCIATION 122, P. H. Road, Madras 29.

> BRITISH COUNCIL 150-A, Mount Road, Madras 2.

BUILDERS' ASSOCIATION OF INDIA 53, Sir Mohamed Usman Road, T. Nagar, Madras 17.

> CANCER INSTITUTE Adyar, Madras 20.

CARDAMOM TRADERS CHAMBER Bodinayakkanur (Dt. Madurai).

> CATHOLIC CENTRE Armenian Street, Madras 1.

CENTRAL FOOTWEAR TRAINING INSTITUTE Guindy, Madras 32.

> CENTRAL INSTITUTE OF PLASTICS ENGINEERING AND TOOLS Guindy, Madras 32.

CENTRAL LEPROSY TEACHING AND RESEARCH INSTITUTE Chingleput.

CHAMBER OF COMMERCE & INDUSTRIES Kallukatti North, Karaikudi 1.

CHRISTIAN LITERATURE SOCIETY Park Town, Madras 3.

CINE TECHNICIANS' ASSOCIATION OF SOUTH INDIA

No. 15, Arulammal Street, T. Nagar, Madras 17.

COIMBATORE CHAMBER OF COMMERCE Post Box No. 12, Race Course Road, Coimbatore.

COIMBATORE DISTRICT PAPER MERCHANTS ASSOCIATION

C/o Viswanath Trading Co., Raja Street, Coimbatore 1.

COIMBATORE DISTRICT RADIO DEALERS ASSOCIATION

C/o Associated Electronics, 59, Oppanakara Street, Coimbatore 1.

COIMBATORE HARDWARE MERCHANTS ASSOCIATION

Thiruvenkataswamy Road, Coimbatore 2.

CONNEMARA PUBLIC LIBRARY Pantheon Road, Egmore, Madras 8.

COUNCIL OF PUBLIC AFFAIRS 11, Second Main Road, Madras 28.

DAIVAJNA SAMAJ 44. Purasawalkam High Road, Madras-7.

EAST INDIA TOBACCO FEDERATION 2/6. Second Line Beach, Madras 1.

ELECTRIC TRADERS ASSOCIATION 221, Avanashi Road, Coimbatore 18.

EMPLOYERS' FEDERATION OF SOUTHERN INDIA Dare House Annexe, 3/4, Moore Street, Madras 1.

Chairman: S. S. Lal; Vice-Chairman: J. C. Watson; Secretary: C. S. Krishnaswami.

> ERODE CHAMBER OF COMMERCE 189, Sathi Road, Erode.

FORUM OF FREE ENTERPRISE 35, Mount Road, Madras 2.

FRIEND-IN-NEED SOCIETY Finsbree Garden, 19/20, Poonamallee High Road, Madras 3.

GANDHI LINCOLN INSTITUTE OF HUMAN RELATIONSHIP Gandhigram (Dt. Madurai).

> GANDHI MEMORIAL Gokulam, Madras 18.

All India Depressed Classes Educational, Employment & Welfare Association.

GOKULAM METHOD VILLAGE WELFARE ASSOCIATION

GOVT. TUBERCULOSIS INSTITUTE Spur Tank Road, Chetput, Madras 31.

11-B, Eldams Road, Teynampet, Madras 18.

HANDLOOM TEXTILES MANUFACTURERS' AND EXPORTERS' SOCIETY

> Salem Main Road, Komarapalayam P.O. (Salem District).

HINDU GOOD TEMPLARS' LEAGUE 35/A, Audiyappa Naicken Street, Madras 1. Works for prohibition and brotherhood.

HINDUSTAN CHAMBER OF COMMERCE 'Hindustan Chamber Buildings' 8, Kondi Chetty Street, Madras-1.

President: K. Eswaran; Vice-Presidents: Deepak Banker, K. D. Shah; Treasurer: D. N. Jhunjhunwalla; Secretary : G. R. Rao.

> INDIA SUNDAY SCHOOL UNION Cooncor.

INDIAN BOTANICAL SOCIETY Univ. Botany Laboratory, Madras 5.

INDIAN CHAMBER OF COMMERCE 6/83, Avanashi Road, Coimbatore 18.

President : K. Sundaram : Hon. Secretaries : A. N. Nayak, S. Venkat Rao.

> INDIAN CHAMBER OF COMMERCE 84-B, South Raja Street, Tuticorin.

INDIAN CHAMBER OF COMMERCE & INDUSTRY 23, First Line Beach, Nagapattinam.

INDIAN CHAMBER OF EXPORT PROMOTION 28, Angappa Naicken Street, Madras 1.

INDIAN CHILD EVANGELISM FELLOWSHIP 9, Bronsan Garden Road, Kilpauk, Madras 10. Also at 2, Jubilee Road, Poona 1.

INDIAN COUNCIL OF CHILD EDUCATION 39, Edward Elliots Road, Mylapore. Madras 4.

INDIAN ENGINEERING ASSOCIATION "Dare House", 2nd Line Beach, Madras 1.

INDIAN INSTITUTE FOR POPULATION STUDIES Gandhinagar, Madras 20.

INDIAN INSTITUTE OF HOMOEOPATHS 30, Bakthapuri St., Kumbakonam and 6, Stringers St., Madras 1, 4, Manjanakara Street, Madurai 1 and Arunachala Asari St., Salem 1.

> INDIAN INSTITUTE OF TECHNOLOGY Madras 36.

Object: Advancement of Technological education in the country. Director: Dr. A. Ramachandran.

INDIAN RED CROSS SOCIETY, TAMIL NADU BRANCH

Red Cross Building, Monteith Road, Egmore, Madras 8.

INDIAN ROADS AND TRANSPORT DEVELOPMENT ASSOCIATION LTD. Post Box No. 1270, Madras 1.

INDO-U.S.A. CULTURAL ORGANISATION Rajapalayam.

INDUSTRIAL ESTATE MANUFACTURERS' ASSOCIATION

Industrial Estate, Guindy, Madras 32.

INSTITUTE OF AUTOMOBILE ENGINEERING AND BUSINESS MANAGEMENT

85, Mount Road, Teynampet, Madras 18.

INSTITUTE OF CATERING TECHNOLOGY & APPLIED NUTRITION Adyar, Madras 20.

INSTITUTE OF LEATHER TECHNOLOGY Madras 20.

INSTITUTE OF MANAGEMENT C/o "Karpagam", 24/80, Sallivan Street, Coimbatore 1.

INSTITUTE OF RURAL HEALTH AND FAMILY PLANNING

Gandhigram P.O., Madurai District.

INSTITUTION OF ENGINEERS (INDIA) 1, Adam's Road, Chepauk, Madras 5.

INSURANCE ASSOCIATION OF INDIA Madras Regional Council, 2-6, Second Line Beach, Madras 1.

KALAKSHETRA-INTERNATIONAL ART CENTRE Tiruvanmiyur, Madras 41.

Centre for education in classical music, dancing, theatrical art, painting and handicrafts; maintains a weaving centre for the production of attractive silk and cotton sarees in traditional Indian designs; a photographic division offering colour process, Microfile and Photostat, electronically operated Vario Klischograph block making, black and white colour Service and Publication Department publishing books relating to education, art and literature, with which is affiliated Dr. U. V. Swaminatha Aiyar Library housing valuable Tamil MSS and books open for research students.

President: Srimati Rukmini Devi.

KARUR WEAVING & KNITTING FACTORY OWNERS' ASSOCIATION LTD. New Street, Karur.

> KENNEL CLUB OF INDIA Coonoor 1 - Nilgiris.

> > KING INSTITUTE Guindy, Madras 32.

KUPPUSWAMI SASTRI RESEARCH INSTITUTE Sanskrit College, Mylapore, Madras 4.

LEATHER EXPORT PROMOTION COUNCIL "Marble Hall" 3/38, Vepery High Road, Madras 3.

MADRAS AERATED WATER REQUISITES MERCHANTS' ASSOCIATION No. 296, Wall Tax Road, Madras 3.

MADRAS ALUMINIUM MERCHANTS' AND MANUFACTURERS' ASSOCIATION 10/11, Peddu Naicken Street, Madras-3.

MADRAS BETEL-NUT MERCHANTS'
ASSOCIATION

17, Anna Pillai Street, G. T. Madras-1.

MADRAS BUTTER AND GHEE MERCHANTS' ASSOCIATION (REGD.) 137, Audiappa Naick Street, Madras-1.

MADRAS CHAMBER OF COMMERCE & INDUSTRY
Dare House Annexe, 3/4, Moore Street, Madras 1.

Chairman: A. M. Arunachalam; Vice-Chairman:
H. E. Bourcier; Secretary: C. S. Krishnaswami.

MADRAS CHAMBER OF SMALL INDUSTRIES Y. M. I. A. Bldg., 9, Armenian St., Madras 1.

MADRAS CHILLIES MERCHANTS' ASSOCIATION 18, Chinnathambimudali Street, Madras-1.

MADRAS CITY COUNCIL FOR CHILD WELFARE 81, Suryanarayana Chetty Street, Royapuram, Madras 13.

> MADRAS CRICKET ASSOCIATION Nehru Stadium, Madras 3.

MADRAS CYCLE IMPORTERS' ASSOCIATION 17, Stringers Street, Madras 1.

MADRAS DYES AND CHEMICALS MERCHANTS' ASSOCIATION

209, Govindappa Naick Street, Madras-1.

MADRAS ELECTRIC TRADERS ASSOCIATION 433, Mint Street, Madras 1.

MADRAS GUNNY MERCHANTS' ASSOCIATION 35-A, Audiappa Naicken Street, Madras 1.

MADRAS HARDWARE & PAINT MERCHANTS' ASSOCIATION

45, Venkatachala Mudali St., Madras 3.

MADRAS HOTELS ASSOCIATION 289, Netaji Subhas Chandra Bose Road, Madras 1.

MADRAS INSTITUTE OF TECHNOLOGY Chromepet P.O., Chingleput Dist.

MADRAS JEWELLERS' & DIAMOND MERCHANTS' ASSOCIATION

11 & 12, Car Street, Netaji Subhaschandra Bose Road, Madras 1.

> MADRAS KIRANA MERCHANTS' ASSOCIATION

210, Govindappa Naick Street, Madras 1.

MADRAS LIBRARY ASSOCIATION

C/o Maraimalai Adigal Library, 105, Linghi Chetty St.,

Madras-1.

MADRAS LITERARY SOCIETY AND AUXILIARY OF THE ROYAL ASIATIC SOCIETY Office: College Road, Nungumbakkam, Madras 6.

MADRAS MAHA BODHI SOCIAL SERVICE SOCIETY

10, Kennet Lane, Egmore, Madras 8.

Also runs an orphanage.

MADRAS MANIYARI MERCHANTS' ASSOCIATION No. 1-A, Narayana Mudali Lane, Madras 1.

MADRAS MATHEMATICS CLUB
Dept. of Mathematics, Univ. of Madras, Senate Buildings,
Chepauk, Madras 5.

MADRAS METALWARE MANUFACTURERS' & MERCHANTS' ASSOCIATION 102, Narayana Mudali St., Madras 1.

MADRAS MOTOR PARTS DEALERS' ASSOCIATION 22, General Patters Road, Mount Road, Madras 2.

MADRAS OIL & SEEDS ASSOCIATION 320, 9, Francis Joseph Street, Madras 1.

MADRAS OIL AND SEEDS EXCHANGE LTD. No. 24, Thambu Chetty St., Madras 1.

MADRAS OPTICIANS' ASSOCIATION 7/22, Broadway, Madras 1.

MADRAS PAPER MERCHANTS' ASSOCIATION No. 2. Anderson St., 1st Floor, Madras 1.

MADRAS PIECEGOODS MERCHANTS'
ASSOCIATION
100. Godown Street, Madras 1.

MADRAS PINTO & ROTARY OIL MILLS OWNERS
ASSOCIATION

17/20, Devaraja Mudali Street, Madras 5.

MADRAS PRODUCTIVITY COUNCIL 22, Royapettah High Road, Madras 14.

MADRAS SCHOOL OF SOCIAL WORK Casamajor Road, Egmore, Madras 8.

MADRAS SEVA SADAN
No. 5, Harrington Road, Chetput, Madras 31.

THE MADRAS SOCIETY FOR THE PROTECTION OF CHILDREN AND

DR. VARADAPPA NAIDU'S ORPHANAGE AND JUNIOR APPROVED SCHOOL 465, T. H. Road, Washermanpet, Madras 21.

MADRAS STATE HANDLOOM INDUSTRY & TRADE ASSOCIATION

Kaithari Nilayam, No. 72, Thambu Chetty Street, Madras 1.

MADRAS STOCK EXCHANGE LTD.

'Bombay Mutual Building Annexe', 322/323,
Linghi Chetty Street, Madras 1.

President: E. V. Rajagopalan; Vice-President: M. Sankaran; Treasurer: K. V. Krishnamoorthy; Exec. Director: E. R. Krishnamurthi; Secretary: Y. Sundara

MADRAS TIMBER MERCHANTS' ASSOCIATION Sydenham's Gardens, Madras 7.

Babu.

MADRAS TRADES ASSOCIATION Spencer's Bldgs., Mount Road, Madras 2. MADRAS WINDOW GLASS MERCHANTS'
ASSOCIATION

Room No. 5, 92/96, Devaraja Mudali St., Madras 3.

MADRAS YARN MERCHANTS' ASSOCIATION 38, Mint Street, P.T., Madras 3.

MADURA RAMNAD CHAMBER OF COMMERCE 90-92, East Avanimoola Street, Madurai 1.

> MADURA TAMIL SANGAM Tamil Sangam Road, Madurai.

MADURA YARN MERCHANTS' ASSOCIATION LTD. 134, South Masi St., Madurai.

MARINE BIOLOGICAL ASSOCIATION OF INDIA Mandapam Camp.

(Editorial Office: 10, South St., Madras 28.)

MOTOR VEHICLES AND ALLIED INDUSTRIES ASSOCIATION

22, Edward Elliot's Road, Madras 4.

MUSIC ACADEMY

115-E, Mowbray's Road, Madras 14.

MUSLIM EDUCATIONAL ASSOCIATION OF SOUTHERN INDIA

"Association Gardens," 49, Peters Road, Royapettah, Madras 14.

> NAGAI EXPORTERS AND IMPORTERS ASSOCIATION

6, Second Line Beach, Nagapattinam.

NATIONAL CHAMBER OF COMMERCE 22, Broadway, Madras 1.

NATIONAL COUNCIL OF WOMEN IN INDIA "Philroy", Madras-34.

NEO-MALTHUSIAN LEAGUE "BIRTH CONTROL CLINIC"

"Baba Nilayam," Bharathi Road, Coimbatore 9.

NON-FERROUS METAL DEALERS ASSOCIATION 19, Venkatachala Mudali Street, Madras 5.

P. S. G. & SONS CHARITY INDUSTRIAL INSTITUTE

Peelamedu Post, Coimbatore 4.

PUDUKOTTAI DIVISION CHAMBER OF COMMERCE Silver Hall, Old Palace Square, Pudukottai.

PASTEUR INSTITUTE OF SOUTHERN INDIA Coonoor 3, Nilgiris District.

PERFORMING RIGHTS SOCIETY 132, Coral Merchant Street, Madras 1.

PROVINCIAL BAR FEDERATION High Court Buildings, Madras 1.

PUBLISHERS' ASSOCIATION OF SOUTH INDIA 3, Kondichetty Street, Madras 1.

RAJAPALAYAM CHAMBER OF COMMERCE Hospital Road, Rajapalayam (Ramnad Dist.). RAMALINGAM TUBERCULOSIS SANATORIUM Perundurai (Dist. Coimbatore).

RANGPAR PHILATELIC ACADEMY 27, Dewan Rama Iyengar Road, Vepery, Madras 7.

RASIKA RANJANI SABHA Sundareswarar Street, Mylapore, Madras 4.

REFRIGERATION AND AIR CONDITIONING TRADES ASSOCIATION 23/24, Second Line Beach, Madras-1.

SALEM DISTRICT CHAMBER OF COMMERCE

Venkata Rao Road, Salem.

SALEM GUGAI HANDLOOM CLOTH MANUFACTURERS' ASSOCIATION 'Raghunatha Nilayam', 277, Trichy Main Road, Post Box No. 629, Gugai, Salem 6.

SALT MANUFACTURERS & MERCHANTS' ASSOCIATION

159, Victoria Street, Tuticorin 1.

SANSKRIT ACADEMY Sanskrit College Buildings, Mylapore, Madras 4.

SERVANTS OF INDIA SOCIETY
S, Westcott Road, Royapettah, Madras 14.

SIVAKASI CHAMBER OF MATCH INDUSTRIES 7-1-36, Sivan Sannathi Street, Sivakasi.

SMALL SCALE COTTAGE FIREWORKS MANUFACTURERS' ASSOCIATION Door No. 7-3/5, Seeni Moopnagar Street, Sivakasi.

SMALL SCALE INDUSTRIES ASSOCIATION 44, Mount Road, Guindy, Madras 15.

SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

Vepery High Road, Vepery, Madras 7.

SOIL CONSERVATION RESEARCH DEMONSTRATION & TRAINING CENTRE Patna House, Octacamund.

SOUTH INDIA HOTELS & RESTAURANTS
ASSOCIATION

Spencer's Building, 153, Mount Road, Madras 2.

SOUTH INDIA IRON & HARDWARE MERCHANTS' ASSOCIATION 99, Armenian Street, Madras 1.

SOUTH INDIA MINERALS ASSOCIATION 52/53, Jehangir Street, Madras 1.

SOUTH INDIA PIPE DEALERS SYNDICATE LTD. 8, Sembudoss Street, Madras 1.

SOUTH INDIA PLASTICS MANUFACTURERS'
ASSCN.

298, Wall Tax Road, Madras 3.

SOUTH INDIA TANNERS AND DEALERS
ASSOCIATION
Ranipet, North Arcot District.

SOUTH INDIA TEACHERS' UNION Raja Annamalaipuram, Madras 28.

SOUTH INDIA TEXTILE RESEARCH ASSOCIATION Coimbatore 14.

SOUTH INDIAN FILM CHAMBER OF COMMERCE

122, Mount Road, Madras 6.

SOUTH INDIA GLASS MANUFACTURERS'
ASSOCIATION

C/o South India Glass and Enamel Works Ltd., Cherry Road, Salem 7.

SOUTH INDIA HOSIERY MANUFACTURERS
ASSOCIATION

78/12, Kumaran Road, Tirupur 1.

SOUTH INDIAN MOTION PICTURE STUDIOS
ASSOCIATION

122, Mount Woods Road, Madras 2.

SOUTH INDIAN PHOTOGRAPHIC AND ALLIED TRADES ASSOCIATION LTD. 1/129, Mount Road, Madras 6.

SOUTH INDIAN SOCIETY OF AUCTIONEERS & ESTATE AGENTS No. 5. Thambu Chetty St., Madras 1.

SOUTH INDIAN SOCIETY OF PAINTERS No. 13, 111, Trust Cross, Madras 28.

SOUTH TRAVANCORE CHAMBER OF COMMERCE

N.M.C. No. 29/201, Cape Road, Kottar, Nagercoil.

SOUTHERN INDIA BRAHMO SAMAJ 135, Anna Pillai Street, G.T., Madras 1.

SOUTHERN INDIA CHAMBER OF COMMERCE AND INDUSTRY

Indian Chamber Buildings, Madras 1.

Secretary : P. S. Subramaniam.

SOUTHERN INDIA COTTON WASTE MERCHANTS' & EXPORTERS' ASSOCIATION No. 5, Vysial Street, Coimbatore 1.

THE SOUTHERN INDIA ENGINEERING
MANUFACTURERS' ASSOCIATION
Kalaikathir Bldg., Avanashi Road, Coimbatore 18.

SOUTHERN INDIA JOURNALISTS' FEDERATION 15, Ritchie Street, Mount Road, Madras 2.

SOUTHERN INDIA METAL DISTRIBUTORS'
ASSOCIATION

127, Mint Street, Madras 1.

SOUTHERN INDIA MILLOWNERS
ASSOCIATION
"Shanmukhamanram," Coimbatore 1.

SOUTHERN INDIA ROLLER FLOUR MILLS ASSOCIATION

44, Armeinan Street, Madras 1.

SOUTHERN INDIA SKIN & HIDE MERCHANTS' ASSOCIATION 16, Sydenham's Road, Periamet, Madras 3. SOUTHERN INDIA WOOL AND GOAT HAIR EXPORTERS ASSOCIATION

52-B, Sydenham Road, Madras 3.

SOUTHERN LANGUAGES BOOK TRUST 458, Poonamalle High Road, Kilpauk, Madras 10.

The objectives are to sponsor the production, publication, and distribution of high quality low priced books in large numbers in the four major South Indian languages — Tamil, Telugu, Malayalam and Kannada.

# SRI AVINASHILINGAM HOME SCIENCE COLLEGE Coimbatore 11.

This college in Home Science provides under-graduate enrolment for Home Science, post-graduate courses and doctorate in nutrition. It provides the basic sciences and arts such as Zoology, Chemistry, Mathematics, English, Tamil, Economics and Music. Within the same campus are provided institutions from Nursery School to M.Sc. and Teacher training. It publishes the bi-monthly journal of Nutrition & Dietetics.

## SRI RAMAKRISHNA MATH

(Publication Department)
11, Sri Ramakrishna Math Road, Mylapore, Madras 4.

SRI RAMKRISHNA MISSION VIDYALAYA Sri Ramkrishna Vidyalaya P.O., Dist. Coimbatore.

Started in 1930, it consists of about a dozen institutions, of which the Rural Institute, the Teachers' College and Arts College are most important. The Govt. of India have proposed to give it a "deemed" University status under Section 3 of the University Grants Commission Act.

STANDARD HANDLOOM GUILD 53, North Beach Road, Madras 1.

STATIONERY AND OFFICE EQUIPMENT ASSOCIATION OF SOUTH INDIA 330, Thambu Chetty Street, Madras 1.

ST. JOHN AMBULANCE ASSOCIATION (INDIA)
Red Cross Buildings, Monteith Road, Egmore, Madras 8.

STRUCTURAL ENGINEERING RESEARCH (REGD.) CENTRE

C.S.I.R. Campus, Madras-20

TAMIL CHAMBER OF COMMERCE 310-311, Linghi Chetty Street, Madras 1.

TAMIL WRITERS' ASSOCIATION Crescent Society Buildings, Mount Road, Madras 2.

TAMILNAD FOODGRAINS MERCHANTS' ASSOCIATION LTD.

7, Swami Sannadhi Lane, Madurai 1.

TAMILNAD MILLOWNERS' ASSOCIATION Madurai.

TAMILNAD MOTOR PARTS DEALERS
ASSOCIATION
24, Tamil Sangam Road, Madurai.

TAMILNAD NON-FERROUS METALS ROLLING MILLS ASSOCIATION

19, Venkatachala Mudali Street, Madras 5.

TAMILNAD PRINTERS' ASSOCIATION 18.A, Jadamuni Kovil East, Second Street, Madurai. TAMILNAD PAPER MERCHANTS' ASSOCIATION

43, 44, East Avani Moola St., Madurai 1.

TAMILNAD VARTHAGAR KAZHAGAM 70, Chetty New Street, Kumbakonam.

TAMIL NADU HANDLOOM WEAVERS' CO-OPERATIVE SOCIETY LTD. Egmore, Madras-8

TAMIL NADU SMALL SCALE INDUSTRIES ASSOCIATION

Saleh Mansion, 1, Tuckers Lane, Broadway, Madras 1.

TAMIL NADU COTTONSEED MERCHANTS' ASSOCIATION

95, Thadicombu Road, Dindigul.

TAMIL NADU FAMILY PLANNING ASSOCIATION

42, Harrington Road, Chetput, Madras 31.

TAMIL NADU HANDLOOM INDUSTRY & TRADE ASSOCIATION

"Kaithari Nilayam," 72, Thambu Chetty Street, Madras 1.

TAMIL NADU SANGITA NATAKA SANGAM 'Brodie Castle', Greenaways Road, Madras-28.

TAMIL NADU TAMIL DEVELOPMENT & RESEARCH COUNCIL Fort St. George, Madras 9.

TEXTILE ASSOCIATION (INDIA) SOUTH INDIA BRANCH

C/o The Coimbatore Cotton Mills Ltd., Singanallur P.O., Coimbatore 5.

THEOSOPHICAL SOCIETY International Headquarters: Adyar, Madras 20.

TOBACCO EXPORT PROMOTION COUNCIL 123, Mount Road, Madras 6.

TRICHINOPOLY DISTRICT CHAMBER OF COMMERCE

Theradikadai Street, Tiruchirapalli 2.

TUTICORIN CHAMBER OF COMMERCE South Beach Road, Tuticorin.

THE TUTICORIN-CEYLON CURRENT EXPORTERS' & IMPORTERS' CHAMBER 8. South Raja Street, Tuticorin.

> UNITED PLANTERS ASSOCIATION OF SOUTHERN INDIA

P.O. Box No. 11, "Glenview," Coonoor, Nilgiris.

President: N. Bhagwandas; Vice-President: P. G. Gurjer; Secretary and Adviser: V. I. Chako.

U.S. EDUCATIONAL FOUNDATION IN INDIA 158, Mount Road, Madras 2.

VELLORE CHAMBER OF COMMERCE 147/1, Chunnambukara Street, Vellore.

VICTORIA TECHNICAL INSTITUTE 151-B, Mount Road, Madras 2.

VIJAYA BHARATHA CHAMBER OF COMMERCE LTD. Virudhunagar.

THE VIRUDHUNAGAR CHAMBER OF COMMERCE & INDUSTRY P. Box 47. Virudhunagar.

VIVAHA NALA SANGAM 2713, North Raja Street, Pudukottai.

Objects: To eradicate the dowry system and to perform marriages under its auspices without any extravagance.

YOUNG MEN'S CHRISTIAN ASSOCIATION Esplanade, Madras 1.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION 528, Poonamallee High Road, Madras 7.

## ADMINISTRATIVE PERSONNEL Madras

Governor

Sardar Ujjal Singh

#### Ministers

Chief Minister in charge of Public, Gen. Admn., Police, Elections, Food Production, Prohibition, Leg., Inf. & Publicity and Cinematograph Act, M. Karunanidhi. Education & Health, V. R. Nedunchezhian.

Finance, Planning, Revenue, Board of Revenue, Com. Taxes, Indians Overseas, Refugees & Evacuees, K. A. Mathi-

Agriculture, Harijan Welfare, Women's & Children's Welfare, Stationery & Printing, Fisheries and Tourism, Thirumathi Satyavanimuthu.

Industries, Textiles, Yarn, Handloom, Mines & Minerals, Iron and Steel Control, Employment & Trg., Companies, Law & Courts, S. Madhavan.

Public Works, Transport, Co-operation, Minor Irrigation, Highways and Waqfs, S. J. Sadiq Pasha.

Municipal Adm., Comm. Development, Panchayats, Bhoodan & Gramdan, Khadi & Village Ind., Rural Ind.

Project, Ex-Servicemen, Prosperity Brigade, M. Muthuswamy.

Food, Animal Husbandry and Milk, P. U. Shanmugam. Co-operation, Si. Pa. Aditanar.

Religious Endowments, Housing & Accommodation Control, K. V. Subbiah.

Electricity, Forests & Cinchona, Money Lending and

Legislation on Chits, O. P. Raman. Backward Classes, N. V. Natarajan. Labour, K. Vezhavendan.

Secretariat, Fort St. George, Madras 9.

Chief Secretary, E. P. Royappa, I.A.S.; Additional Chief Secretary, S. Viswanathan, I.A.S.; Secretaries: S. Venkataramanan, I.A.S. (Finance); P. K. Nambir, I.A.S. (Revenue); Selvi Anna R. George, I.A.S. (Agriculture); A. Ramachander, I.A.S. (Food); V. S. Subbiah, I.A.S. (Labour); K. Dhiraviyam, I.A.S. (Social Welfare); R. Pasupathy, I.A.S. (Co-operation); E. C. P. Prabhakar, I.A.S. (RDLA); K. S. Sivasubramaniam, I.A.S. (PWD); R. Ramasubra maniam, (Law); J. A. Ambashankar, I.A.S. (Health and Family Planning).

#### PRINCIPAL OFFICIALS

Director of Agriculture, Hari Bhaskar, I.A.S.; Director of Animal Husbandry, Venkatachalam, I.A.S.; Registrar of Cooperatives, P. B. Krishnaswamy, I.A.S.; Director of Collegiate Education, T. T. Titus; Director of School Education, S. V. Chitti Babu; Director, Information & Publicity, T. V. Venkataraman, I.A.S.; Chief Conservator of Forests, T. Jayadev; Director, Industries & Commerce, S. G. Ranga Bashyam, I.A.S.; Commissioner of HR & CE, K. S. Narasimhan, I.A.s.; Commissioner of Labour, M. M. Rajendran, I.A.S.; Director, State Transport, P. M. Belliappa, I.A.S.; Inspector General of Police, R. M. Mahadevan, I.P. Commissioner of Police, P. Kuppuswamy, I.P.; Inspector General, Prisons, E. L. Stracey, I.P.; Director of Handlooms, C. Ramachandran, I.A.S.; Director of Statistics, G. D. Nandagopal; Chairman, TPSC, V. Balasundaram, I.A.S.; Director, Tamil Development, R. M. Rajakannanar; Director of Backward Classes, R. Kulandaivelu, I.A.S.; Director, Employment & Training, P. N. Vedanarayanan, I.A.S.; Milk Commissioner, R. Natarajan, I.A.S.; Director, Harijan Welfare, G. Sundaramurthy, I.A.S.; Director, Medical Education, A. N. K. Menon; Director, Small Savings & State Raffles, L. M. Vasagam, I.A.S.; Director of Technical Education, T. Sivalingam; Director of Vigilance & Anti-Corruption, M. Balakrishna Menon; Director of Women's Welfare, Thirumati Lalilka Padalkar, I.A.S.

#### HIGH COURT

Madras

Chief Justice, K. Veeraswami.

Judges, P. Ramakrishnan, P. S. Kailasam, R. Sadasivam, K. S. Venkataraman, K. S. Ramamurti, N. Natesan, N. Krishnaswamy Reddy, T. Ramaprasada Rao, A. Alagiriswami, M. M. Ismail, K. N. Mudaliyar, K. S. Palaniswamy, S. Ganesan, P. R. Gokulakrishnan, G. Ramanujam, S. Maharajan, B. S. Somasundaram; Registrar, D. Sundara Pandyan; Advocate-General, S. Govinda Swaminathan; Sheriff of Madras, A. Sivasailam.

### RAILWAY SERVICE COMMISSION

Cathedral Road, Madras 6.

Chairman, C. R. Basappa; Secretary, J. Thiagarajan.

#### SOUTHERN RAILWAY

(General Manager's Office, Park Town, Madras 3).

General Manager, P. C. Mathew; Senior Dy. General Manager, V. Ramanathan, Dy. General Manager (General), M. V. Chellapathi Rao; Chief Personnel Officer, G. N. Nair, Chief Engineer, T. Komaloswaran, Chief Engineer (Construction), Syed Sirajuddin Gazudraz, Chief Signal & Tele-communication Engineer, E. B. O. McAuliffe, Chief Operating Superintendent, G. S. A. Saldanha, Chief Commercial Superintendent, H. F. Pinto, Chief Mechanical Engineer, E. S. Muthukrishna, Chief Electrical Engineer, D. V. K. Sastry, Financial Adviser & Chief Accounts Officer, A. Sahul Hamid, Chief Security Officer, K. Ramamurthi.

## TRIPURA

CAPITAL: Agartala. Area: 10,680.44 sq. kilometers.

Particulars about population, literacy, density etcare given under article "Population".

Number of towns: 6.

There is only one District in Tripura having one municipality.

The Territory is divided into ten administrative sub-divisions and 44 tehesils. The names of sub-divisions respectively are: Sadar—Khowai, Kailashahar, Dharmanagar, Sonamura, Udaipur, Belonia, Sabroom; Kamalpur and Amarpur.

The Territory has 24 police Stations and is divided into 871 revenue villages keeping in view the physical features, compactness of area as well as the facility of general administration.

#### LAND REFORMS

The provisions of the Tripura Land Revenue & Land Reforms Act, 1960 except those relating to prevention of fragmentation have been enforced in all areas of the Territory. Section 99(1)(c) of the Act has been enforced in all areas of the Territory except six villages of Kotwali Police Station of Sadar Sub-Division.

#### **EDUCATION**

Total No. of Colleges for general education—5; Professional & Technical Colleges—7; Music College—1; Engineering College—1; Primary Schools (Basic & Non-Basic)—1,400; Middle Schools (Basic & Non-Basic)—192; Higher Secondary and High Schools—81; School for Vocational and Special education; Agriculture—1; Nurs-

ing Training Centre—1; Industrial Training Centres—4; Adult Education—417; Others: (Hindi Learning Centre and School for Oriental Studies)—52; and Nursery (including Balwadi)—344.

Total number of students in Colleges for General education—3,736; Professional and Technical Colleges (Teacher's Training—615; Polytechnic—282; College for special education—Music Colleges—70 + (19); Engineering Colleges—124; Primary Schools (Basic & Non-Basic)—1,29,646; Middle Schools (Basic & Non-Basic)—29,878; Higher Secondary Schools—37,158; Schools for Vocational and Special Education—Agriculture—106; Nursing Training Centre—55; Industrial Training Centre—264; Adult (spl) Education—10,176; Others (Oriental Studies and Hindi Learning Centres)—1,821; Nursery (including Balwadi) 14,878.

(Figure within brackets indicates the students belonging to other educational institutions.)

#### CO-OPERATION

State Co-op. Bank—1, Land mortgage Bank—1, Service Societies—185, Large sized societies—25, Multipurpose societies—177, Small sized societies with limited liability—16, Small sized societies with unlimited liability—12, Farming Societies—3, Non Agri. Credit Societies—11, Apex Marketing Society—1, Primary Marketing Societies—14, Purchase and sale societies—23, Co-op. Wholesale Consumers stores—1, Primary Consumers societies—42, Fishery societies—8, Housing Societies—3 Milk Supply Societies—2, Weavers Societies—68, Other Industrial Soceties—57, Proceessing Societies—1, Other Non-agricultural Non-Credit societies—20, Supervising Union—1, State Co-op. Union—1.

#### ELECTRICITY

The source of power in the Union Territory of Tripura is from diesel stations located at Agartala, Ambassa, Khowai, Dharmanagar, Kailasahar, Udaipur and Bogafa. The aggregate installed capacity of the generating stations is 2,886 KW. Power facilities are now available in 53 localities. To meet the growing demand of power, the Government of Tripura has entered into an agreement with Assam State Electricity Board for purchase of power in bulk. To transmit the purchased power, construction of 132 KV line has already been started. The preliminary work of the Gumti Hydro electric scheme has been completed and construction work on the main Project has already started.

#### PANCHAYAT

The work of setting up Panchayati Raj Bodies in Tripura was started in the Third Plan period. Total No. of Gram Panchayats—448, Nyaya Panchayats—134.

#### **INDUSTRIES**

Tea industry is the major industry of Tripura. There are 55 tea gardens in the Territory. Apart from tea industry, the other existing industries of Tripura may be classified under the following sectors:—Handlooms, Handicrafts, Khadi and Village Industries and Small Scale Industries.

Tripura handlooms, the largest single cottage industry of the Territory produce fabrics of wide variety and qualities. The handicrafts of Tripura, particularly those which are made of wood, cane and bamboo etc., have taken a place of pride for their master craftsmanship and novelty in designs. Tripura silk industry is of recent origin. Many small scale industries are in existence in the Territory; some of which are carpentry, blacksmithy, bakery and confectionery, fruit canning, footwear and other leather goods, veneering and manufacture of safety matches, curry powder, steel furniture, agricultural implements, writing ink, distilled water, hosiery, aluminium utensils, umbrella handle mfg. etc. Besides, endeavours are being made for the setting up of a plywood factory, spinning mill, jute mill, sugar factory, steel rolling mill, glass factory, sodium silicate factory, creckeries, L.T. insulators etc.

#### TRANSPORT

Total length of roads is 1,580 Km. out of which 736 Km. are surfaced. Tripura is linked with Assam by road through

the Assam-Agartala road. There are no big irrigation works in this Territory. There is a new railway link which connects Dharmanagar with Kalkalighat Railway Station in Assam. Most of the rivers in the Territory carry country boat traffic. There are three airstrips and one aerodrome in this Territory.

#### **EMPLOYMENT EXCHANGE**

Figures for 1969 (upto October): number of registrations—7,855; No. of vacancies notified—2,248; No. of candidates placed—1,408; No. in the waiting list in the Live Register—20,883.

Total number of employees was 35,037 (6,910 private sector and 28,127 public sector) as on 30-6-1968.

Total number of employees was 36,966 (6,811 private sector and 30,155 public sector) as on 30th June, 1969.

#### HEALTH

No. of Hospitals 11; No. of Public Health Centres 22; Dispensaries 124; No. of beds 790; No. of doctors 180; No. of nurses 274; V.D. and skin clinic 1; (for each) Family planning clinic 1; Anti natal clinic 1; Eye clinic 1; Chest clinic 1; Leprosy clinic 1; Dental clinic 1; Family planning centre 32; E.N.T. clinic 1; Psychiatric clinic 1; and well Baby clinic 1 and A.R. 1.

#### AGRICULTURAL PRODUCTION

The Agricultural wealth of the Territory consists of rice, jute, cotton, tea and fruits, while its forests yield timber, firewood and charcoal. Paddy is the main source of revenue.

Area in hectares under the crop and production in M. tonnes respectively for 1968-69 are: Autumn Rice—1,25,311; 89,155; Winter Rice—1,29,755; 1,10,090; Summer Rice—9,057; 8,185; Total Rice—2,64,123; 2,07,430; Kharif-Pulses—931; 410; Rabi-Pulses—2,137; 773; Jute—6,478; 45,360 (Bales); Mesta—7,085; 43,750; Cotton—2,541; 2,278; Rape & Mustard—3,843; 1,150; Sesamum—2,266; 941; Sugarcane (Gur)—2,671; 9,300; Potato—2,843; 17,800; Total area under forest—6,35,254 hectares; Total cropped area 3,36,294 hectares; Net area sown 2,38,600 hectares.

Note: 1 Bale=180 kgs.

Livestock: Total cattle 5,88,290; Buffaloes 49,740; Sheep 2,287; Goats 1,32,212; Horses & Ponies 1,773; Pigs 36,627; Poultry 6,63,357 (1966 Census).

#### ADMINISTRATIVE PERSONNEL

Agartala

Lt. Governor, A. L. Dias.

#### Ministers

Chief Minister in charge of Home, Agriculture, Industries, P.W.D., Development, Publicity, Statistics etc., Sachindra Lal Singh.

Welfare of Scheduled Castes and Scheduled Tribes, Local Self Government, Raj Prasad Choudhury.

Medical and Public Health and Labour, Tarit Mohan Das Gupta.

Finance and Education, Krishnadas Bhattacharjee.

Jail and Animal Husbandry, Prafulla Kumar Das.

Deputy Minister, Munchor Ali.

Chief Commissioner, D. K. Bhattacharya.
Chief Secretary, I. P. Gupta; Development Commissioner, J. M. Lyngdoh; Secretaries, J. D. Philomen Dos (Finance), R. K. Dev Barman (Medical, Public Health and Publicity), A. Datta (Judicial), P. K. Dev Barma (Tripura Legislative Assembly); District Magistrote and Collector, G. Saigal; Judicial Commissioner, R. S. Bindra; District

G. Saigal; Judicial Commissioner, R. S. Bhilda, and Sessions Judge, S. B. Laskar; Inspector-General of Police, G. Majumder; Director of Education, Dr. G. N. Chatterjee; Director of Agriculture, K. P. Chakraborty; Director of Industries, R. P. Sen Gupta; Conservator of Forests, N. C. Bhattacharjee; Registrar of Co-operatives, M. S. Dev Barma; Director of Public Relations & Tourism, S.C.Bhattacharyya; Chief Labour Officer, M. M. Dev Barma.

# UTTAR PRADESH

APITAL : Lucknow.

Area: 113,454 square miles.

Population 7,36,72,906 (1961 census). See under "Population" for more details.

Uttar Pradesh is a member of the Central Zone of which the other member is Madhya Pradesh. The headquarters of the zone is at New Delhi.

Number of Districts: 54; Tahsils: 231; Municipalities: 152; Corporations: 5; Town Areas: 276; Notified Areas: 41; Panchayats: 72,333; Villages: 1,11,742.

Names of the eleven revenue divisions with the head-quarters within brackets followed by districts comprising each: Meerut (Meerut): Dehra Dun, Saharanpur, Muza-ffarnagar, Meerut, Bulandshahr; Agra (Agra): Aligarh, Agra, Mainpuri, Etah, Mathura; Allahabad (Allahabad): Farukhabad (Fategarh), Etawah, Kanpur, Fatehpur, Allahabad; Rohilkhand (Bareilly): Bareilly, Bijnor, Budaun, Moradabad, Rampur, Shahjahanpur, Pilibhit; Jhansi (Jhansi): Jhansi, Jalaun (Orai), Hamirpur, Banda; Varanasi (Varanasi): Varanasi, Mirzapur, Jaunpur, Ghazipur, Ballia; Gorakhpur (Gorakhpur): Gorakhpur, Deoria, Basti, Azamgarh; Kumaon (Naini Tal): Naini Tal, Almora, and Pithoragarh; Lucknow (Lucknow): Lucknow, Unnao, Rae Bareli, Sitapur, Hardoi, Kheri (Lakhimpur): Faizabad (Faizabad): Faizabad, Gonda, Bahraich, Sultanpur, Pratapgarh; Barabanki; Garhwal (Pauri-Garhwal), Uttar Kashi, Garhwal and Tehri Garhwal.

(See under "Population" for area and population of Districts.)

#### RETIREMENT AGE

The retirement age of State Government employees is 58. In the case of inferior services it is 60 years.

#### PANCHAYATI RAJ

Panchayati Raj has been established in this State. Accordingly a three-tier structure of local bodies, viz. Gaon Sabhas, Kshettra Samitis and Zilla Parishads at village, block and district levels respectively has been built up.

These different bodies shall in addition to discharging the local governmental functions, also have the responsibility of preparing plans of development and executing them in their respective areas themselves.

#### LOCAL SELF-GOVERNMENT

Number of Municipal Corporations: 5; Number of Municipal Boards: 152 (a) Class I — 39; (b) Class II — 34, (c) Class III — 41, (d) Class IV — 38; Number of Town Areas — 276; Number of Notified Areas — 41.

#### **AGRICULTURE**

Total area cultivated 1,73,19,284 hectares (1966-67).

Main food crops: Wheat, barley, gram, rice, juar, bajra and maize.

Main cash crops: Sugar-cane, linseed, rape seed, mustard, groundnut, til, cotton, jute and potato.

The production of food went up from 11.77 million tonnes in 1966-67 to 16.67 million tonnes in 1967-68 and was expected to be 16.80 million tonnes for 1968-69. The increase in production is attributed to the introduction of high-yielding variety of wheat, paddy and hybrids of maize, juar and bajra.

Production of sugarcane in terms of gur has also gone up from 37,90,821 tonnes in 1967-68 to 51,08,345 tonnes in 1968-69.

Oilseeds production was 16,39,922 tonnes in 1967-68 and 16,59,936 tonnes in 1968-69.

Cotton area was 53,159 hectares in 1968–69. Production was 50, 114 bales in 1966–67, 30,629 bales in 1967–68 and 45,585 bales in 1968–69.

Jute area was 13,468 hectares in 1968-69. Production was 1,54,191 bales in 1966-67, 1,31,711 bales in 1967-68 and 96,944 bales in 1968-69.

Potato production rose from 8,80,977 tonnes in 1966-67 to 14,36,641 tonnes in 1967-68 and 17,07,701 tonnes in 1968-69.

#### FOOD AND CIVIL SUPPLIES

Foodgrains distribution through the fair price shops remained in force. The number of fair price shops in the State at the end of 1969 was 5,625.

The releases of foodgrains from the Government stocks and wheat products manufactured by the flour mills, to the fair price shops during the financial year upto March 31, 1969 were: wheat 84,704 tonnes; rice 81,052 tonnes; coarse grains: 6,169 tonnes; wheat products 84,911 tonnes; Total issue of foodgrains was 1,71,925 tonnes. Besides this, 55,405 tonnes of wheat was issued to the flour mills from the State Govt. godowns.

During the year 1968-69, the State Govt. obtained from the Government of India, 43,172 tonnes of imported wheat and 718 tonnes milo. The flour mills of the State also received 2,00,092 tonnes of wheat from the Govt. of India. Total imports were 2,43,982 tonnes.

The purchase of rice was made through a levy on trade. Rabi foodgrains viz., wheat, gram, barley and mixtures were procured direct from the producer through a graded levy. The total purchases during the financial year 1968-69 were as follows: (Fig. in tonnes): Wheat 4,55,918; Gram 3,691; Barley 5,764; Rice 2,05,852; Maize 32,273; Total: 7.03,498.

During the year 1968-69, purchases of 84,965 tonnes wheat, 384 tonnes barley, and 1,551 tonnes paddy were also made by the Food Corporation of India on their own account from the open market. A quantity of 29,888 tonnes of maize was also purchased by the F.C.I. upto Feb. 2, 1969.

Out of the purchases of rabi foodgrains made by the State Govt., 4,01,138 tonnes of wheat, 878 tonnes gram and 4,351 tonnes barley were handed over to Food Corporation of India for the Central Pool.

#### LAND TENURE

(Latest available)

With the abolition of zamindaris, following the enforcement of the U.P. Zamindari and Land Reforms Act, 1950, on July 1, 1952 in 48 out of the State's 51 districts, estates of nearly 20 lakh zamindars were taken over resulting in direct contact with 12,800,000 Kisans. The area of land taken over from intermediaries is about 6 erore acres. There are now only a few tracts where Zamindari has not yet been abolished.

Liquidated zamindars retain such of Sir, Khudkast and groves of which they have become Bhumidhars.



The new land tenures under the U.P. Zamindari Abolition and Land Reforms Act are: Bhumidhar, Sirdar and Asami.

The State Government have also enacted legislation to impose ceiling on land holdings and to acquire on payment of compensation surplus land with a view to providing for a more equitable distribution of land by making it available to landless agricultural labourers, cultivation on cooperative basis, conservation of part of available land resources to increase food production and building up of reserve stocks against lean years by carrying on cultivation on modern scientific lines in State-owned farms. The ceiling area applicable to a tenure-holder having a family up to five members, is 40 acres of fair quality land. In the case of a family having more than five members, every additional member will be allowed eight acres of fair quality land subject to a maximum of 64 acres of such land for the entire family. As a result of imposition of ceiling, it is estimated that about two and a half lakh acres of surplus land will be available for distribution among the landless.

Upto December 1969, the total area finally declared surplus under Section 14(1) of the Act stood at 2,38,122

acres, out of which possession was taken over of 1,92,491 acres out of which an area of 1,25,700 acres was temporarily settled. Compensation was finalised in 3,036 cases involving an amount of Rs. 1,15,93,132 out of which Rs. 37,56,342 were paid in cash and Rs. 52,79,900 in bonds.

#### IRRIGATION

Total irrigation potential created by the State works till 1967-68 was 131.87 lakh acres. It was expected to be stepped up to 141.03 lakh acres by the end of 1969-70.

Additional irrigation potential during 1969-70: Major and medium irrigation schemes 3.64 lakh acres and minor irrigation schemes 2.47 lakh acres.

Lift schemes have been launched which ensure early watering facilities to fields. As a result the number of lift canals was expected to go up to 214 by 1969-70.

Irrigation from Deoria Branch of Gandak canal has been started during 1969-70. Work on the Ramganga project is expected to be completed by 1973-74.

#### Progress of Minor Irrigation Works

Pe	riod		Masonry wells (in No.)	Repair of wells (in No.)	Borings (in No.)	Persian wheels (in No.)	Pumping sets (in No.)	Private tube wells (in No.)	Private bandhies (in No.)	Gulls in hills (K.M.)	Haug in hills (No.)	Irrigation potential created (in lakh acres)
	1	7	2	3	4	5	6	7	8	9	10	11
IIIrd Plan	n	٠,.	2,20,724	87,811	1,06,106	1,39,541	19,677	21,545	77,300	914	1,860	20.95
1967-68			71,144	16,967	75,226	40,511	24,825	30,784	11,379	293	444	12-32
1968-69			49,403	19,668	1,00,756	31,997	33,943	37,529	29,489	320.79	1,224	13.93
1969-70			70,000		1,08,500	35,000	30,000	38,000	43,000	600	800	14.08
Target Acupto Fe		nent	40,150	7,146	79,780	20,353	22,893	35,920	50,162	89	599	11.36
Additiona for IVtl		rget	0 00 000	-	5,00,000	2,00,000	1,55,000	2,00,000	2,30,000 (Acres)	3,600	4,725	74.82

The following amounts of loan have been disbursed for M.I. Works through various agencies during the Third Plan

period and the years 1966-67, 1967-68 and 1968-69 and those expected to be disbursed during the IV Plan period.

Baloning a mile of		4591			Name of agency			
Period		G.M.F.		CD/NES	Land Dev. Bank	Other agencies A.I.C., A.R.C. & C.C. Bank	Total	
			(in Rs. lakhs)	(in Rs. lakhs)	(in Rs. lakhs)	(in Rs. lakhs)	(in Rs. lakhs)	
IIIrd Plan			2,921 · 32	1,089.65	246-61		4,257.58	
1966-67			1,825.56	76.35	732-83		2,634 · 74	
1967-68			1,381 · 76	6.00	1,076-51		2,464 · 27	
1968-69	100		585.80	12.00	1,588.68	192.56	2,380.04	
IV Plan (Outlay)			2,000.00		9,500-00	9,500.00	21,000.00	
TOTAL	1		8,714 · 44	1,184.00	13,144 · 63	11,088-68	32,736 · 63	

#### POWER

#### Generation Capacity

The total installed capacity during 1968-69 was 1.310 MW.

The 64 MW Panki power house at Kanpur has been commissioned.

Three machines of 50 MW each were pressed into service at the Obra Thermal Power House in the Mirzapur district by the end of 1968–69 and fourth during 1969–70.

At Dhakrani power station of Yamuna, stage I, 3rd machine of 11·25 MW has been commissioned during 1969-70 and the third machine at Dhalipur power station was commissioned on March 31, 1970. The first unit of 33 MW Power Station in the Obra Hydel Power Station was commissioned and put into commercial operation in May 1970. The remaining two units are expected to be commissioned during 1970-71.

Four of the five machines of 50 MW each on the Obra thermal power station have been commissioned and put into commercial use. The work on the fifth machine is expected to be completed by the end of Sept. 1970.

In the private sector, Renusagar Thermal Station with a capacity of 125 MW was completed and inaugurated.

#### Transmission System

Under the U.P. grid, the total length of transmission and distribution lines at the end of 1968-69 was 92,379

circuit kilometres which was expected to go up to 1,06,000 circuit kilometres by 1969-70.

The State's 220 KV system has been planned to run across the State right from Obra Thermal in the extreme South-East of the State to Yamuna Stage II in the North-West with sub-stations at Obra, Allahabad, Kanpur, Mainpuri, Harduaganj, Muradnagar, Chhibro, Khodri and Shamli. Obra to Muradnagar portion has been commissioned and energised.

Besides, a 220 KV D.C. line has been completed from Obra Thermal Power Station to Mughalsarai to meet the power requirement of north-eastern part of the State.

Some other 220 KV lines are under planning and construction.

Another important development in U.P.'s transmission system is the planning of 400 KV line for the first time in the country. It is proposed from Obra Thermal to Lucknow via Sultanpur. This line will be completed during the Fourth Plan.

Energisation of Tubewells and Pump Sets: Emphasis has been laid on energisation of tubewells and pump sets in order to help boost up agricultural production. Till 1968-69, 65,573 private tubewells and pump sets were energised. Additional 30,000 private tubewells/pump sets were expected to be electrified in 1969-70. The number of State tubewells was 8,780 at the end of 1968-69.

Rural Electrification: Under the rural electrification scheme 4,852 villages were electrified by 1968-69.

#### SOME DETAILS OF THE FOLLOWING GENERATION SCHEMES

Name of Scheme	Total installed capacity M.W.	District	Estimated cost in lakhs of Rs.	When started	Completion	Remarks	
Yamuna Hydel—Stage I	84.75	Dehra Dun	8700	1961-62	1969-70		
Yamuna Hydel—Stage II	360.00				1973-74		
Ramganga Hydel	180	Moradabad	2764 (Power Portion)	1962-63	1973-74		
Obra Thermal	250	Mirzapur	4057	1962-63	1970-71	$3 \times 50$ MW commissioned by 1968-69.	
Obra Hydel	99	Mirzapur	2424	1961-62	1970-71		
New Thermal Station at							
Kanpur	64	Kanpur	1051	1962-63		Commissioned already	
Harduaganj—Stage III	100	Aligarh	2000	1963-64	1968-69	Commissioned already	
Harduaganj-Stage IV	110	Aligarh	2156	1967-68	1970-71		
Obra Thermal Extn.—							
Stage I	300	Mirzapur	5000	1968-69	1972-73		

#### LARGE-SCALE INDUSTRIES

#### Important Industries of the State

Sugar, cotton textiles, edible oils, hydrogenated oil, industrial machinery, machine tools, electrical machinery and electrical accessories, radio sets and transistors, television sets, cycle and cycle parts, foundries, non-rolling foundries, leather tanning and leather goods, woollen textiles, jute textiles, glass and glass products, paper and strawboard, electric lamps, chemicals, pharmaceuticals, antibiotics, agricultural implements, fertilizers, sewing machines, electric fans, automobile parts, tractors, power tillers, railway wagons, distilleries and breweries, rayon, match-boxes, cement, food and milk products, synthetic rubber, aluminium ingots, caustic oda, camphor and allied products.

#### State Public Sector

Government Precision Instruments Factory, Lucknow, Government Cement Factory, Churk (Mirzapur district), Vibhuti Glass Works, Varanasi (taken over by the State Government), 'Zetor' Tractor Assembling Factory, Talkatora (Lucknow), Government Cement Factory, Dalla in Mirzapur district (under construction) and Rosin and Turpentine Factory, Clutterbuckganj (Bareilly).

#### Central Public Sector

Bharat Heavy Electricals, Ranipur (Saharanpur), Antibiotics Factory, Rishikesh (Dehra Dun), Diesel Locomotive Works, Varanasi, Nitrogenous Fertiliser Factory, Gorakhpur, Deep Freeze Meat Factory, Agra, Triveni Structurals, Allahabad, Bakery Plant, Kanpur. Three other units in this section namely Telephone Factory and Heavy Duty Pumps and Compression Factory at Allahabad and a H.A.L. unit at Lucknow are underway.

#### Co-operative Sector (Sugar)

Co-operative Sugar Factory at Bazpur (Nainital), Baghpat (Meerut), Sarsawa (Saharanpur) and Majhola (Pilibhit). The fifth co-operative sugar factory is under construction at Aurai (Varanasi), co-operative spinning mill, Etawah.

#### Production

The Churk Cement Factory produced only 3,62,000 tonnes of cement in 1968-69. It earned a net profit of Rs. 88·39 lakhs during 1967-68.

The Precision Instrument Factory manufactured 29,260 water meters, 428 microscopes and 2,015 pressure gauges during 1968-69 and earned a net profit of Rs. 5 lakhs.

The Rs. 2-crore Triveni Structurals has also gone into regular production.

The Diesel Locomotive Works has produced 300 broad gauge and 34 metre gauge diesel locomotives till March, 1970 and has been able to raise the indigenous content in these engines upto 80 per cent.

The second Government Cement Factory will commence production at Dalla during 1970 with the initial production of 1,200 tonnes of cement per day. Work on deadburnt magnesite plant at Almora is also progressing fast.

A large Urea Fertilizer Factory has gone into production during 1969 at Kanpur at a total cost of Rs. 65 crores. In participation with a U.K. firm, it produces 4.50 lakh tonnes of urea annually.

The Aluminium Factory at Renukoot (Mirzapur) is raising its annual production capacity by 60,000 tonnes at a cost of Rs. 55 erores.

The 71 sugar mills in the State produced about 12 lakh tonnes of sugar during the 1968-69 crushing season.

#### New Incentives Offered by State Governments

During, 1968-69, the Government announced the following concessions and incentives for stepping up the industrialisation: 1. Sales tax holiday for three years for new industries and also to existing units under certain conditions; 2. Exemption from sales tax of parts and components used by 23 industries; 3. Rebate of 15 per cent in power charges to new industrial units for three years; 4. Exemption from Octroi duty of industrial equipment, raw materials and building materials throughout the State; 5. Finance and developed sites or sheds on more liberal terms.

#### Small-Scale Sector

Total number of small-scale industrial units at the end of 1969 was 21,627. U.P. occupies the second position in the country in the matter of defence supplies.

#### Industrial Estates

Out of the 848 allotted industrial sheds in the 76 industrial estates established all over the State, 586 sheds have gone into production. The working units employ about 10,000 persons and produce goods worth Rs. 4·50 crores annually.

#### Handloom

This industry provides employment to more than 10 lakh people and produces one-third of the total requirement of cloth in the State. There are about 2,88,400 registered handlooms in the State. The production in this industry is about Rs. 14 crores in the co-operative sector and Rs. 35 crores in the private sector.

The number of industrial co-operatives increased to 6,207 at the end of 1968-69.

#### TRANSPORT

Total mileage of roads: 38,062.

Mileage of metalled roads: 15,180 under the P.W.D. and 1,716 under District Boards. Total mileage of metalled roads was expected to rise to 17,842 miles at the end of March 1969. Of this surface road mileage, 1,529 miles comprise national highways, 4,789 miles state highways and 11,524 miles major and other district roads.

Number of passenger service buses: 4,225 (excluding roadways vehicles). Number of goods carrying lorries, trucks: 15,712. Number of taxis: 784 (October 1967).

Fleet of motor vehicles (roadways fleet): Passenger buses 3,879; trucks 559; taxis 113. The roadways fleet was expected to be 4,750 at the end of March 1969.

The State owns a transport service under the name of U.P. Government Roadways, managed as a Government Department with the Transport Commissioner as the head.

The State is divided into 12 regions each being in the charge of a General Manager.

The headquarters of the Transport Commissioner is Lucknow.

Capital invested: Rs. 18.06 crores (1967-68).

Number of routes operated 820. Length of routes: 74,500 Kms. Road length covered: 21,000 Kms. (March 1968).

Total kilometres covered (1967-68) — over 21 crores.

Number of vehicles owned by authority on Oct. 31, 1967: Buses: 3,958; Trucks: 530; Taxis: 113.

Number of nationalised city bus services: 59.

Cities where Roadways operate city bus services: Kanpur, Allahabad, Bareilly, Lucknow, Varanasi, Agra, Meerut, Dehra Dun, Farukhabad, Haldwani, Gorakhpur and Faizabad.

Names of places where suburban bus services operate: Mathura-Vrindaban, Fatehgarh-Farrukhabad and Dehra Dun-Premnagar-Clement Town.

The U.P. Roadways operate on a number of inter-State routes connecting all border States.

Roadways have 76 depot workshops and regional workshops undertaking maintenance and repairs of Roadways fleet.

Special tourist buses have been provided to carry tourists to places of interest and scenic beauty.

Number of passengers carried by Roadways buses (1966-67): 16,45,79,486. City Bus services — 4,18,33,000. No. of persons employed (March 1968) 28,000.

Rates of bus fare for lower class :  $2 \cdot 75$  paise per passenger per kilometre.

Goods service has not been nationalised.

The U.P. Government proposes to nationalise 4,000 miles of road transport during the next five years to bring a total of 14,000 miles of road transport under nationalisation by 1974.

#### HOUSING

Number of houses constructed till March 1970 under (a) Industrial Housing Schemes 31,805; (b) Low Income Group Housing Scheme 11,883; (c) Middle Income Group Housing Scheme 1,692 and (d) Slum Clearance scheme 7,401.

#### MEDICAL AND PUBLIC HEALTH (1969)

Number of beds in State Hospitals 33,965; Number of Doctors in Government service: Allopaths and Homeopaths 2,704\*; Number of Doctors registered in U.P. 11,622; Number of registered Nurses 4,620; Number of registered Vaids and Hakims 65,098; Number of Vaids and Hakims in Govt. Service 801\*.

State Budget for medical department (1969-70): Plan — Rs. 2,27,52,600; Non-Plan — Rs. 15,65,70,300.

State Budget for Public Health (1969-70): Plan — Rs. 11,19,11,500; Non-Plan — Rs. 4,23,56,600.

Per Capita expenditure on Medical and Public Health: Rs. 4·90; Birth rate: 38·7 per thousand (1966); Death rate: 13·2 per thousand (1966); Doctor-Population ratio: 1 for 8,000; Bed: Population ratio: 1 for 2,520. Population served on an average by one hospital or dispensary: 42,270.

Number of Allopathic hospitals and dispensaries: 2,066; Number of beds in allopathic hospitals and dispensaries: 34,629; Number of doctors in Government Service: 2,201; Number of Nurses in Government Service: 1,996; Number of registered doctors: 11,622; Number of Mental Diseases Hospitals: 3; Number of Primary Health Centres: 875.

Medical Education and Training: Number of Medical Colleges: 8 (including two central Medical Colleges); Total Number of Seats in Medical Colleges: 858; Number of Nurses Training Centres: 11.

Number of T.B. Isolation Hospitals — 5\*; Number of T.B. hospitals—14; Number of T.B. clinics — 59\*; total number of beds in T.B. Sanatoria and clinics — 2,251\*.

Fifty of the clinics have been established at district headquarters and nine at Tehsil level at Ghaziabad, Firozabad, Chandausi, Balrampur, Khalilabad, Mahrajganj, Mau (Azamgarh) and Rishikesh. Besides, 12 other general clinics are functioning in the State.

Number of Leprosy Asylums — 19\*; At present 14 Leprosy Control units are functioning in the State. These are at Dehra Dun, Mirzapur, Gorakhpur, Moradabad, Kheri, Basti, Bahraich, Barabanki, Azamgarh, Gonda, Deoria, Jhansi, Jaunpur and Ballia. Each unit is supposed to serve a population of 75,000. Besides, two smaller units function at Dharchula and Barkote in Uttarakhand division. In addition 55 Government survey, education and treatment units are also functioning. There are 20 such institutions in the State which provide indoor treatment to lepers. The number of beds is 1,753.

In Agra a Leprosy Centre named Jalma has been established with Japanese help.

The Employees State Insurance Scheme is in operation in Kanpur, Agra, Lucknow, Saharanpur, Allahabad, Rampur, Varanasi, Aligarh, Hathras, Bareilly, Shikohabad, Modinagar, Ghaziabad, Mirzapur, Sahajanwa, Firozabad, Churk, Sitapur, Ghazipur, Ujhani, Sasni, Balawali, Pipri, Hapur, Hirangaon, Mathura, Moradabad, Meerut city, Jhansi, Izzatnagar, Roorkee and Mohan Nagar (Meerut) and in 1966 about 2,70,000 industrial workers were insured benefiting 10,26,300 persons (insured workers and their families).

At present 80 dispensaries including nine mobile dispensaries are functioning. Three ambulances (two at Kanpur and one at Modi Nagar) are functioning. In addition, there are two Employees State Insurance hospitals at Kanpur which have 3,929 beds and 10 whole time specialists.

#### **FAMILY PLANNING**

An amount of Rs. 7-61 crores was made available in the State Budget for 1969-70 to intensify the family planning programme in the State through its three main wings, viz. Mass Communication-cum-Education, Training and Service. There are 875 Rural Family Planning Centres, 7,000 sub-centres, seven Regional Family Planning Centres and 65 Family Planning Centres and 65 Family Planning Centres run by voluntary organisations and Local Bodies. District Family Bureaux have been established in each district and in two cities and a whole-time District Family Planning Officer has been made responsible for the success of the programme, In addition there are 60 combined family planning mobile units and 54 Vasectomy mobile units, one in each district; and 54 LU.C.D. mobile units are functioning, one in each district.

From April 1, 1969 up to the end of February 1970 persons undergoing sterilisation numbered 70,945 and 72,562 women adopted the loop method.

#### LABOUR

Industries in which minimum wage is fixed: rice, flour, dal mills, tobacco (including bidi making), manufacturing cinchona, rubber, tea or coffee plantation in Dehra Dun District only, oil, road construction or building operations, stone breaking or stone crushing, lac manufactory, tanneries and leather goods manufactory, public motor transport, woollen carpet industry, hotel and restaurant, printing press, metal industry and iron foundries.

There occurred 174 strikes during 1968 involving 37,000 workers resulting in a loss of 14,62,000 man-days.

State Govt. Acts for the welfare of the labourers:

(1) U.P. Shops and Commercial Establishment Act (1947), (2) U.P. Industrial Disputes Act, (3) U.P. Maternity Welfare Act, (4) U.P. Sugar and Alcohol Industry Labour Welfare and Development Fund Act, (5) U.P. Industrial Housing Act (1955) and (6) U.P. Industrial Employment (National Holidays) Act.

Trade Unions: 1,391 (1968).

Labour Welfare Centres: 64 (1968).

Under subsidised Industrial Housing Scheme 27,899 houses were constructed till Oct. 31, 1968. Under the sugar factory labour housing scheme, 1,686 houses were constructed in 63 sugar mills.

Provident Fund Scheme covers 3,28,392 employees in 2,712 factories. Employees' State Insurance Scheme has been enforced in 38 industrial towns, covering 3,28,972 employees. Till Oct. 1969, the number of living old age pension holders was 15,643.

Number of employment exchanges including seven University employment exchanges and 11 regional and sub-regional exchanges is 67. The training wing of the State Directorate of Employment and Training runs 62 institutes for imparting training in engineering and vocational trades.

The Directorate also runs schemes for collection of employment market information and vocational guidance.

# SOCIAL WELFARE DEPARTMENT

This department is generally concerned with the implementation of the schemes providing institutional services for the physically handicapped, the blind, the deaf and the dumb, destitutes, beggars, care and protection of women and girls in moral danger, suppression of immoral traffic in women and girls, probation service aiming at reformation and rehabilitation of the youthful first offenders, and reformation of the delinquent children.

Financial assistance in the shape of grants-in-aid is also given by this department to the voluntary social welfare institutions and organisations engaged in various social welfare activities.

<sup>\*</sup> Figures are for 1968.

#### **EDUCATION (1969-70)**

Total General Education Budget - Rs. 79.39 crores.

Primary Education: No. of Primary schools 61,485; No. of boys 64,63,000; No. of girls 37,48,000; No. of teachers 1,96,743.

Steps were taken to open 390 more junior basic schools and to appoint 9,900 additional number of new teachers.

Secondary Education: No. of secondary schools 3,063; No. of boys 8,11,000; No. of girls 1,79,000; No. of teachers 41,311.

University Education: No. of Universities 11; No. of Degree Colleges 245; Enrolment in Universities 44,000; Enrolment in Degree Colleges 1·14 lakhs; No. of teachers in Universities 3,058; No. of teachers in Degree Colleges 6,222.

#### **IUDICIARY**

The scheme of separation of Executive from Judiciary, has been put into operation in all the districts of the State, except in the seven hill districts.

Now all Magistrates trying cases under the Indian Penal Code are under the administrative control of the High Court, while Magistrates trying cases under the preventive sections of the Criminal Procedure Code and under special and local Acts come under Government. The High Court has its principal seat at Allahabad where about 35 Judges sit and a Bench at Lucknow where about eight Judges sit for deciding cases out of the erstwhile Oudh.

#### UNIVERSITIES Agra University

Chancellor: Governor, Uttar Pradesh (Ex-officio); Vice-Chancellor: Shital Prasad; Registrar: Dr. M. G. Gupta, M.A., D. Litt.

Affiliated Colleges 67; Students 41,105 (approx.).

### Aligarh Muslim University

Aligarh

Chancellor: Nawab Saidul Mulk Dr. Hafiz Mohd. Ahmad Said Khan of Chhatri; Vice-Chancellor: Dr. Abdul Aleem; Pro-Vice-Chancellor: Mohammed Fazlur Rehman; Registrar: Dr. Z. U. Ahmad.

The medium of instruction in all classes of the University is English.

From the academic year 1968-69, the Faculty of Arts was bifurcated into Faculty of Arts and Faculty of Social Sciences.

Departments of Faculty of Arts: Arabic, Persian, Urdu, Sanskrit, Hindi, English, Philosophy and Linguistics.

Deptt. of Faculty of Social Sciences: Economics, Education, Political Science, Psychology, History, Library Science, Sociology and Linguistics.

The following new Departments were created in 1969: Department of Library Science and Department of Sociology.

The University adopted Semester Courses in the Faculties of Arts, Science and Commerce from the 1967-68 Session. From the 1968-69 Session Semester Courses have been introduced in the Faculty of Law for the LL.B. and LL.M. Courses and the three-year LL.B. (Honours) Courses have been introduced.

#### Allahabad University

Chancellor: Governor of U.P.; Vice-Chancellor: Prof. A. B. Lal, M.A.; Registrar: Dr. B. M. Singh.

Unitary, teaching, residential; Colleges 6; Students 8,838.

#### REVISED BUDGET ESTIMATES, 1969-70

Total Income		A SALL	101.	Rs.	20,54,724		
Total Expenditure	dhows y		18	Rs.	95,75,072		
State Govt. Grant:	Recurri	ng	1	Rs.	75,20,348		

English and Hindi are the media of instruction for graduate course as well as for post-graduate course.

#### Banaras Hindu University Varanasi 5.

Chancellor: His Highness Dr. Vibhuti Narain Singh; Vice-Chancellor: Dr. K. L. Shrimali; Rector: Dr. H. P. Dwivedi; Registrar: Dr. K. N. Lal, D.Sc.

Residential: Faculties 11; Constituent Colleges 2; Affiliated Colleges 4; Students 11,334 (1969-70).

#### BUDGET ESTIMATES FOR 1969-70

Income: Rs. 98,29,720.

Expenditure: Rs. 3,59,95,960.

(These figures exclude Development grant and Block grant receivable by the University.)

#### Gorakhpur University

Chancellor: Governor, Uttar Pradesh (Ex-officio); Vice-Chancellor: Rev. P. T. Chandi, M.A. (Madras), M.Sc. (London); Registrar: Dr. Bholendra Singh.

Teaching and Affiliating:

Constituent College: 1. Affiliated Colleges: 58. Students: 30,069.

#### BUDGET ESTIMATES FOR 1969-70

Total Income: Rs. 63,99,108·97. State Govt. Grant: Recurring Rs. 25,26,400·00. State Govt. Grant: Non-recurring Rs. 12,53,949·00.

The medium of instruction in all undergraduate classes of the University is Hindi and for post-graduate classes English and Hindi.

#### Kanpur University

It is an affiliating & Examining University at present.

Chancellor: Dr. B. Gopala Reddy, Rajya Pal, Uttar Pradesh. Vice-Chancellor: S. Radhakrishna Agarwal\*; Registrar: S. B. B. B. Singh.

Number of Affiliating Colleges: 54. Students: 50,000—approximate.

#### Lucknow University

Residential, Unitary and Teaching University.

Chancellor, Governor of Uttar Pradesh; Vice-Chancellor: Dr. M. B. Lal, M.Sc., D.Sc. (Luck.), D.Sc. (Edin.), F.N.I., F.A.Sc., F.Z.S.I.; Registrar: P. C. Mital, M.A.; Librarian: Dr. Baljit Singh, M.A., LL.B., Ph.D., D.Litt.

Number of students: 23,935 including 7,506 women students and 652 research scholars for 1968-69.

The medium of instruction in the University is Hindi.

#### Meerut University, Meerut.

Chancellor: Dr. B. Gopala Reddy; Vice-Chancellor: Dr. R. K. Singh, M.A., LL.B., D.Ed. (Harvard); Registrar: Dr. S. K. Goswami, M.Sc., Ph.D., F.G.S.

It is an affiliating university with provision for teaching Departments.

Number of Affiliated Colleges: 56

Number of Students: Affiliated Colleges 40,163.

Number of Teachers: 1,942.

<sup>\*</sup> It is reported that he has resigned.

# Roorkee University

Chancellor: Governor of Uttar Pradesh; Vice-Chancellor: M. R. Chopra; Registrar: V. N. Kak, M.A.

Unitary, Teaching and Residential. Students (1969-70): Full time 1,539 (Men 1,491, Women 48). New Admissions 537 (Men 509, Women 28). Post-Graduate: Full time (Men 402, Women 27); partime students 9.

Students from other countries — 13 (Nepal 12, South Africa 1).

The medium of instruction is English.

#### Budget (1969-70)

Income:	The light will be de-
	Rs.
	4,02,785.89
Grant in aid from State Govt	71,61,310.00
Grant received from U.G.C	46,29,369.98
Grant received from C.S.I.R., New Delhi	5,53,194.93
Other sources (Students fee, rent income	
from buildings and miscellaneous income)	18,39,958 · 42
Total 1	45 86 619 22

Expenditure: Rs. 1,31,01,401.84.

#### U. P. Agricultural University Pant Nagar (District Nainital).

This University set up on the model of the Land Grant Colleges of U.S.A., aims at developing rural leadership and competence.

The University, which is the first of its kind in the country, has four constituent colleges and one school of basic sciences & humanities—an Agricultural College, a College of Veterinary Medicine, Pant College of Technology and a Post-Graduate College. The University provides comprehensive education on Agriculture and allied subjects on the basis of an integrated system of teaching, research and extension. It has on its rolls 1,304 students for under-graduate and 317 for post-graduate studies—10 per cent of the seats being specifically reserved for students from outside the State.

#### Budget (1969-70)

				Rs.
Recurring income		19.	129.	Il lakhs.
Non-recurring income			127-0	5 lakhs.
	-			OB

Vice-Chancellor: D. P. Singh, I.A.S.; Registrar: O. P. Mohan.

#### **ASSOCIATIONS**

ACADEMY OF ZOOLOGY 164, Civil Lines, Agra.

AGRA MERCHANTS' CHAMBER LTD. Bari Kothi, Belanganj, Agra.

AGRA PRODUCTIVITY COUNCIL G. G. Industries Post Office, Agra.

AGRA SHOE MANUFACTURERS' ASSOCIATION 1244, Pili Kothi, Shahganj, Agra.

ALIGARH LOCK MANUFACTURERS & TRADERS'
ASSOCIATION
Aligarh.

ALL INDIA CRIME PREVENTION SOCIETY Behari Niwas, Kanpur and Balaganj, Lucknow.

ALL INDIA FEDERATION OF EDUCATIONAL ASSOCIATIONS

Jha-Seshadri-Khattry Bhawan, Post Box 52, Kanpur.

ALL INDIA KASHIRAJ TRUST Fort Ramnagar, Varanasi.

Objects: Among others, advancement and propagation of the Sanskrit language, Sanskritic learning and Indology.

The Trust maintains a South Indian Pilgrims Information Bureau at Varanasi to help the pilgrims from South India.

ALL-INDIA NATURE CURE ASSOCIATION 52, Gwynne Road, Lucknow.

ALL INDIA SEVA SAMITI Seva Samiti Buildings, Seva Samiti Road, Allahabad 3.

AMERICAN ACADEMY OF BANARAS Rewa Palace ,B2/3 Rewa Ghat ,Varanasi. ARCHAEOLOGICAL MUSEUM Dampier Park, Mathura.

BHARAT KALA BHAVAN (Museum of Indian Art and Archaeology). Banaras Hindu Univerity, Banaras 5.

THE BHARAT SCOUTS AND GUIDES
UTTAR PRADESH
17, Katra Road, Allahabad.

BHARATA GANITA PARISAD
(FORMERLY BANARAS MATHEMATICAL SOCIETY)
Mathematics Dept., Lucknow University, Lucknow.

BIRBAL SAHNI INSTITUTE OF PALAEOBOTANY 53, University Road, Lucknow (U.P.).

CHAMBER OF COMMERCE Chandausi.

CHAMBER OF COMMERCE Hapur, Dist. Meerut.

CHESHIRE HOMES INDIA 18, Nemi Road, Dehra Dun.

Chairman: Maj.-Gen. Virendra Singh; Mg. Trustee: J. A. K. Martyn; Hon. Treasurer: P. S. Maller.

Homes: Bangalore, Baroda, Bombay, Burnpur, Calcutta, Coimbatore, Delhi, Dehra Dun, Jamshedpur, Katpadi, Madras, Mangalore, Poona, Ranchi, Trichinopoly and Madurai.

### COTTAGE INDUSTRIES DEVELOPMENT INSTITUTE

Tilpurwa, Hussainganj, Lucknow. Specialists in Chikan Art Industry.

#### DEFENCE INSTITUTE OF WORK STUDY Landour Cantt., Mussoorie.

Functions: (a) to train defence personnel in Work Study and other managerial duties; (b) to offer, on request Expert Consultancy Service to Defence Establishments in the field of practical applications of Work Study, and (c) to carry out research for further improvement in Work Study techniques, particularly in the context of conditions obtaining in this country.

# THE DIVINE LIFE SOCIETY P.O. Sivanandanagar, Dist. Tehri-Garhwal, U.P.

Founded by H. H. Swami Sivananda in 1936. The main objective is the dissemination of spiritual knowledge and spiritual awakening of modern mankind, and revival of India's ancient spiritual and moral ideals as applicable to man of the present age. Propagates Yoga and Vedanta, promotes universal love, the unity of religions, the ideal of brotherhood and the spirit of selfless service through medical work and educational help. Universal in its outlook, its activities include missionary and philanthropic work irrespective of sex, sect, caste, creed, country or colour. The Society has branches all over the world.

President: H. H. Swami Chidananda Saraswati.

EMPLOYERS' ASSOCIATION OF NORTHERN INDIA

(14-77, Civil Lines, Post Box No. 344, Kanpur.)

DOON CHAMBER OF COMMERCE & INDUSTRY 15-B, Rajpur Road, Dehra Dun.

EASTERN U.P. CHAMBER OF COMMERCE AND INDUSTRY

5, Prayag Street, Allahabad.

ENGINEERING ASSOCIATION OF NORTHERN INDIA

79/7, Latouche Road, Kanpur.

GANGANATHA JHA RESEARCH INSTITUTE Motilal Nehru Park, Allahabad.

GURUKUL KANGRI VISHWAVIDYALAYA P.O. Gurukul Kangri (Dt. Saharanpur).

H. B. TECHNOLOGICAL INSTITUTE Company Gardens, Kanpur.

HIDE MERCHANTS' ASSOCIATION Farrashkhana, Kanpur.

HIND KUSHT NIVARAN SANGH (U.P. Branch).

C/o Director of Medical and Health Services, U.P., Lucknow.

> INDIAN CERAMIC SOCIETY Banaras Hindu University, Banaras 5.

INDIAN INSTITUTE OF PETROLEUM P.O. IIP, Dehra Dun.

Aims and objectives: Research and development in petroleum refining, petrochemicals, fuels and lubricants; techno-economic surveys for the demand and production of petroleum products in India; process designing; development in petroleum information dissemination systems.

Director: Dr. M. G. Krishna; Administrative Officer: G. Prakash; Projects Division: 19, Ring Road, Lajpatnagar IV, New Delhi-24.

INDIAN INSTITUTE OF TECHNOLOGY
I.I.T. P.O., Kanpur.

INDIAN SOCIETY OF EARTHQUAKE TECHNOLOGY Roorkee.

INSTITUTE OF OPHTHALMOLOGY Gandhi Eye Hospital, Aligarh.

INSTITUTE OF ORIENTAL PHILOSOPHY Vrindaban (Dist. Mathura).

> KASHI VIDYAPITH Varanasi.

MAHILA ASHRAM

(Home for women in distress run by Municipal Corpn.)
Motinagar, Lucknow.

MERCHANTS' CHAMBER OF U.P. 14/38, Civil Lines, Kanpur.

NATIONAL ACADEMY OF SCIENCES, INDIA (Lajpat Rai Road, Allahabad 2.)

NATIONAL CHAMBER OF INDUSTRIES AND COMMERCE

(G. G. Industries Post Office, Agra.)

NATURE CURE COUNCIL OF MEDICAL RESEARCH 52-57, Gwynne Road, Lucknow.

NORTH INDIA CHRISTIAN LITERATURE SOCIETY 18, Clive Road, Allahabad.

NUMISMATIC SOCIETY OF INDIA P.O. Banaras Hindu University, Varanasi 5.

RAMAKRISHNA MISSION SEVASHRAM Vivekananda Puri, Lucknow 7.

SHAHJAHANPUR MERCHANTS' CHAMBER Shahjahanpur.

SHEILA DHAR INSTITUTE OF SOIL SCIENCE University of Allahabad, 2-D, Beli Road, Allahabad.

STRUCTURAL ENGINEERING RESEARCH CENTRE

SUGAR TECHNOLOGISTS' ASSOCIATION OF INDIA Kalyanpur, Kanpur.

TANNERS' FEDERATION OF INDIA 14/69, Civil Lines, Kanpur.

TEXTILE ASSOCIATION (INDIA) (U.P. Branch) 14/1, Civil Lines, Kanpur.

TRADERS CHAMBER OF UTTAR PRADESH Meston Road, Kanpur. U.P. AUTOMOBILE ASSOCIATION 32-A, M. G. Marg, Allahabad.

U.P. BARBED WIRE MANUFACTURERS'
ASSOCIATION
58/4, Birhana Road, Kanpur.

U.P. BISCUIT MANUFACTURERS' ASSOCIATION 84/67, G.T. Road, Kanpur.

U.P. CHAMBER OF COMMERCE 15-197, Civil Lines, Kanpur.

U.P. GUR AND KHANDSARI ASSOCIATION Alamgiriganj, Bareilly.

U.P. INDUSTRIAL ESTATE MANUFACTURERS'
ASSOCIATION
5, Industrial Estate, Kanpur.

U.P. MOTOR INDUSTRIES ASSOCIATION C/o Motor Cycle House, 12, Station Road, Lucknow.

U.P. SCIENTIFIC DEALERS AMD MAKERS ASSOCIATION

C/o Superior Scientific Stores, 107/221, Jawahar Marg, Kanpur.

U.P. SMALL SCALE INDUSTRIES ASSOCIATION 106/377, 'P' Road, Kanpur.

UPPER INDIA CHAMBER OF COMMERCE (Post Box No. 63, Kanpur.)

President: H. K. Srivatsava; Vice-President: A. P. Gupta.

UPPER INDIA SUGAR EXCHANGE LTD. 51/58, Collectorganj, Kanpur.

UTTAR PRADESH PUBLISHERS' ASSOCIATION 21, Sheo Charan Lal Road, Allahabad 3.

UTTAR PRADESH TUBERCULOSIS ASSOCIATION 1, A. P. Sen Road, Lucknow.

VARANASEYA SANSKRIT VISHVA VIDYALAYA, Varanasi.

Teaching-cum-affiliating. Has the richest collection of Sanskrit Manuscripts.

Chancellor: Governor of U.P.; Vice-Chancellor: Dr. Gaurinath Shastri; Registrar: Dr. V. Upadhyaya (Ag.); Treasurer: Dr. Satyavrat Singh; Director of Research Institute: Pt. Badarinath Shukla.

VIJAI BEOPAR CHAMBER LTD. New Mandi, Muzaffarnagar.

THE VIJNANA PARISHAD
Thornhill Road, Muir College Buildings,
Allahabad 2.

Scientific—Hindi Science Academy of India for Propagation of Science in Hindi.

WESTERN U.P. CHAMBER OF COMMERCE MEERUT CANTT. 17.

YOGA-VEDANTA FOREST ACADEMY Divine Life Society, P.O. Sivanandanagar (Dt. Tehri Garhwal).

The Yoga-Vedanta Forest Academy, an affiliated institution to the Divine Life Society, constitutes the instructional and the research wing of the mother institution. The objective and function of the Academy are practical training in Yoga, instruction on spiritual Sadhanas and Yoga-abhyasa, regular publication of books on Yoga and Vedanta, imparting knowledge of scriptures, research work into aspects of Yoga and arranging of periodical intensive courses of the Yogas in synthesis.

#### ADMINISTRATIVE PERSONNEL

Lucknow

#### Governor

B. GOPALA REDDY.

#### Ministers

Chief Minister 'in Charge of, General Adm., Home, Planning, Transport, Jail, Social and Harijan Welfare, Charan Singh.

Revenue and Relief and Rehabilitation, Chaturbhuj Sharma.

Panchayat Raj, Jagan Prasad Rawat. Industries, Beni Singh Awasthi. Food and Civil Supplies, Baldeo Singh Arya. Forest, Ajit Pratap Singh. Irrigation, Virendra Verma. Transport, Ramji Lal Sahayak. Sales Tax and Registration, Balbir Singh. Co-operation, Lakshmi Shankar Yadav. Justice, Swami Prasad Singh. Animal Husbandry, Dr. Sita Ram. Excise, Bishan Lal. Agriculture and Community Development, Sheoraj Singh. Public Works Department, Dharam Singh. Education & Labour, Sripati Misra. Power, Ram Lakhan. Finance and Legislative Affairs, Narain Dutta Tewari. Health, Anwar Ahmad.

Local Self-Government, Atique Rahman.

#### Ministers of State

Revenue, Dharam Dutt Vaidya; Community Development, Mahmood Ali Khan; Labour and Technical Education, Narendra Singh Bisht; Food and Civil Supplies, Raj Mangal Pande; Co-operation, Dr. Prakash Narain Gupta; Local Self-Government, Gopi Nath Dixit; Education, Dr. (Mrs.) Rajendra Kumari Vajpayee.

#### New U.P. Ministers

Ministers: Jai Ram Verma and Ram Kinkar.

Minister of State: Dip Narain Mani Tripathi and
Manohar Lal.

Deputy Ministers: Sachidanand Gupta, Habibur Rehman Nomani, Ram Singh Khanna, Asrar Ahmed, Mahilal and Ram Bachan Yadav.

#### Secretariat

Chief Secretary, Mutsaddi Lal, I.C.S.; Secretary, Agr. Production and Rural Development, Ram Sahay; Secretary Local Self Govt. and Relief & Rehabilitation, Bal Raj Vohra; Secretary, Home, Confidential, Jails, Vigilance & Civil Defence, A. K. Mustafy; Secretary, Food & Civil Supplies, S. S. L. Kakkar; Secretary, Public Works & Transport, Basant Singh Seth; Secretary, Education & Social Welfare, Girija Prasad Pandey; Secretary, Finance, R. K. Trivedi; Secretary, Planning, Evaluation and Economics & Statistics, T. P. Tewari; Secretary, Irrigation & Power, Shiam Singh Bisen; Secretary, Medical, Public

Health & Family Planning, Qazi Mukhtar Ahmad; Spl. Secretary, Agriculture, Achyutananda Das; Spl. Secretary, Finance, Bharat Narain; Secretary, Inf., Cultural Affairs & Scientific Research, Forests, P. C. Pande; Secretary, Revenue, Athar Husain; Secretary, Ind. & Labour, N. P. Bhatnagar; Spl. Secretary, Finance, S. P. Pande; Secretary, Excise, R. P. Khosla; Spl. Secretary, Public Works & Transport, Kumari Kusum Lata Mital; Spl. Secretary, Comm. Development, Panchayati Raj, M. S. Haq; Spl. Secretary, Food & Civil Supplies, S. C. Goil; Secretary, Judicial & Leg. Deptt., Prem Prakash; Commissioner, Sales Tax, Kushal Pal Singh, I.A.S.; Director of Vigilance, Jayendra Nath Chaturvedi, I.P.S.; Chief Engineer, Public Works Deptt., Hari Gopal Verma; Inspector General of Police, Nigmendra Sen Saksena, I.P.; Labour Commissioner, Prakash Narain Kaul, I.A.S.; Director of Education, Dr. Chandra Mohan Bhatia; Chairman, Public Service Commission, Jagdishwar Prasad Mital; Chairman, Vigilance Commission, Bhagwant Singh, I.A.S.; Registrar, Cooperative Societies, Muhammad Mushfique, I.A.S.; Excise Commissioner, Virendra Singh Katara, I.A.S.; Chief Conservator of Forest, Tribhuwan Nath Srivastava, I.A.S.; Director of Industries, Dr. T. G. K. Charlu, I.A.S.; Inspector General of Prisons, Harish Chandra Saksena.

### North-Eastern Railway

Gorakhpur

General Manager, B. D. Gaur; Sr. Deputy General Manager, B. K. Batliwala; Deputy General Manager (G), K. M. Mall; Chief Commercial Superintendent, D. S. Sethi; Chief Operating Superintendent, K. Devanathan; Chief Engineer, U. H. Mehta; Chief Electrical Engineer, D. S. Mehta; Chief Mechanical Engineer, C. B. Lall; Engineer In-Chief (Survey), H. D. Bhowmick; Chief Medical Officer, Dr. S. K. Bose; Chief Personnel Officer, S. C. Chatterjee; Chief Signal & Tele. Communication Engineer, S. A. Srinivasan; Chief Security Officer, L. S. Varma; Controller of Stores, S. N. Biswas; Financial Adviser & Chief Accounts Officer, M. S. Gill; Chief Public Relations Officer, S. N. Sharma.

#### Railway Service Commission 19, Sardar Patel Marg, Allahabad 1.

Chairman, N. Y. Manchar; Member-Secretary. Kunwar Bahadur.

#### High Court Allahabad

Chief Justice, V. G. Oka; Judges, Jagdish Sahai; Shashi Kant Verma; William Broome, I.C.S.; Dhatri Saran Mathur, I.C.S.; Sirendra Narayan Dwivedi; T. Ramabhadran, I.C.S.; B. D. Gupta; K. B. Asthana; S. N. Katju; G. Kumar; R. S. Pathak; Durgeshwar Dayal Seth; Hamedullah Beg; Gursaran Das Sighal; Shanker Dayal Khare; Gyan Chand Mathur; Satish Chandra; Harish Chand Pati Tripathi; Lakshmi Prasad Nigam; Surendra Narain Singh; Uma Shanker Srivastava; Yeshoda Nandan; K. C. Puri; A. K. Kirty; J. S. Trivedi. Addl. Judges, T. P. Mukerjee; R. L. Gulati; R. B. Misra; K. N. Srivastava; G. S. L. Srivastava; B. B. Misra, C. D. Parekh, B. N. R. Lokur, O. P. Trivedi, Hari Swarup, M. N. Shukla; Hamid Husain; S. B. Malik; J. M. L. Sinha, K. B. Srivastava, Jagmohan Lal; Registrar, P. N. Goel; Advocate-General, Kamal Narain Singh.

# WEST BENGAL

CAPITAL: Calcutta. Area: 34,194 sq. miles; Population: 34.93 million (1961 Census). Percentage of increase 1951-61: 32.79. Density: 1,032. Sex ratio 878 females per 1,000 males. Literacy: 29.3 per cent.

There are three Divisions in the State, the Burdwan Division, the Jalpaiguri Division and the Presidency Division.

The Districts in the Divisions with their headquarters in brackets are as follows: Burdwan Division: Bankura (Bankura), Birbhum (Suri), Burdwan (Burdwan), Hooghly (Chinsura), Midnapore (Midnapore), Purulia (Purulia). Jalpaiguri Division: Cooch-Behar (Cooch-Behar), Darjeeling (Darjeeling), Dinajpur\* (Balurghat), Jalpaiguri (Jalpaiguri), Malda (Malda), Murshidabad (Berhampur), Nadia (Krishnagar), 24-Parganas (Alipur). Calcutta and Howrah comprise the Presidency Division.

Panchayats: The rural area of West Bengal has been covered by a network of Gram and Anchal Panchayats. The total number of Gram Panchayats in the State is 19,662 and that of Anchal Panchayats 2,926. The State Government has dissolved all the 15 zilla parishads and about 325 anchalik parishads in the State with immediate effect from May 1969.

The abolition order had been issued under the West Bengal Zilla Parishads (Amendment) Ordinance promulgated recently.

The Government had already appointed administrators for the dissolved bodies to act until they were reconstituted under a revised constitution.

The President has given assent to the West Bengal Separation of Judicial and Executive Functions Bill, 1970.

pro-

Subsequent to the resignation of the Chief Minister Mr. Ajoy Mukherjee on March 16, President's rule was proclaimed in West Bengal on March, 19, 1970.

#### POPULATION

(See under "Population").

#### AGRICULTURE

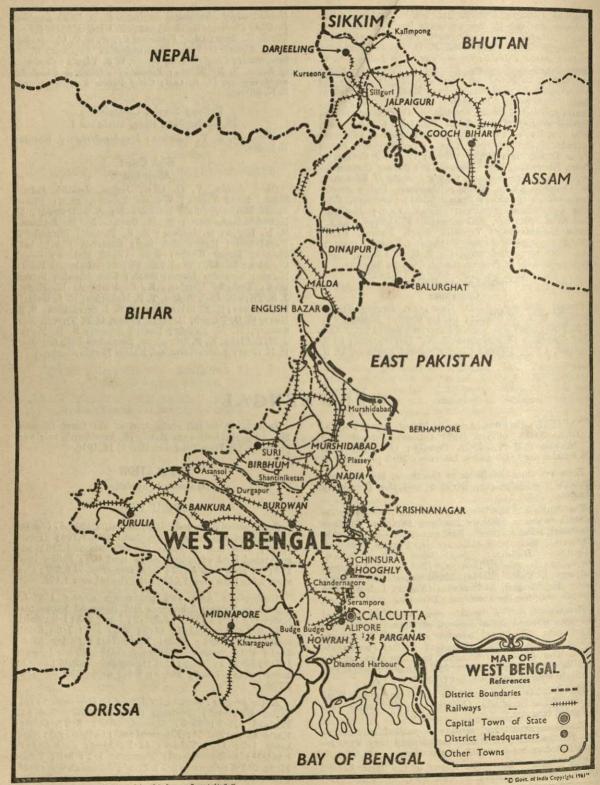
Geographical Area and Classification for 1966-67 (figures in thousand hectares): Geographical area 8,768; Forests 1,108; area not available for cultivation 1,288; uncultivated land excluding fallow land 608; Fallow land 279; net area sown 5,569; Total area cropped 6,653; area sown more than once 1,084; net irrigated area 1,478.

Foodgrains: Area and production during 1967-68 (figures in thousand hectares and thousand tonnes respectively): Rice 4,714·4; 5,208·2; Jowar 2·3; 1·3; Bajra 0·3; 0·2; Maize 51·5; 48·8; Ragi 9·9; 7·6; Small millets 11·7; 6·4; Wheat 79·0; 71·1; Barley 52·4; 34·1; Total cereals 4,921·4; 5,374·7; Pulses: Gram 167·5; 95·8; Tur 40·4; 32·1; Other pulses 496·6; 238·1; Total pulses: 704·5; 366·0; Total foodgrains 5,625·9; 5,740·7.

Major oilseeds: (figures for 1968-69); Groundnut: nil; Castor seed: nil; Sesamum 8·2; 4·5; Rapeseed and Mustard 111·9; 35·3; Linseed 35·6; 9·0; Others: Mesta 45·0; 250·0²; Nigerseed: nil; Cotton: nil; Sannhemp 1·7; 1·3; Tobacco 13·7; 11·0; Jute 268·7; 1,340·1¹; Safflower: nil; Turmeric 1·2; 3·3; Potato 78·6; 642·6; Coconut 6·7; 22·0²; Arecanut 0·2; 0·8³; Guar seed: nil.

<sup>\*</sup> Also called West Dinajpur. 1 Thousand Bales of 180 kgs. each.

Million nuts. Thousand tonnes of dried nuts.



Land Tenure: All rent-receiving interests in agricultural lands vest in the State and the numerous tenants and sub-tenants, as the case may be, now hold land directly under the State Government. All forests too are now managed directly by the Government.

There are roughly 1.28 million acres of cultivated land in the State, of which, according to preliminary but by no means accurate statistics, only 400,000 acres will be found surplus for redistribution among the tillers of the soil.

Sonarpur-Arapaneh Scheme: The Sonarpur-Arapaneh-Matla Drainage Scheme of reclaiming vast water-logged tracts 105 sq. miles in area, with powerful pumping plants, is the first of its kind in India. Under the first part of the Scheme, a submerged area of 23,360 acres has been reclaimed for cultivation. The total yield of paddy from these large tracts of land was 21,000 maunds.

Bagjola Drainage Scheme: Rs. 104-lakh Bagjola Drainage Scheme is intended to improve the drainage of 116 square miles of area. The scheme when completed will reclaim 25,600 acres of water-logged lands and render them fit for cultivation, which will result in annual additional yield of 12,091 tons of paddy and 1,619 tons of rabi crops.

#### **FORESTS**

(See under article on "Forests").

#### IRRIGATION

Area under irrigation: over 35 lakh acres.

Some individual schemes with total cost in Rs. lakhs and area in acres benefited (kharif season) respectively are as follows: Mayurakshi Reservoir 20,46·60; 560,000; Harahatuganj Drainage 12·94; 16,000; Berai Canal 21·78; 5,000; Jibanti-Banki 3·11; 6,400; Jampoi 0·51; 800; Soadighi Gangakhali 24·84; 29,400; Jhargram 9·74; 5,000; Suvankar Daura 17·57; 6,000; Trans-Damodar 4·15; 32,900; Saraswati 6·25; 7,100; 20 Minor Schemes 5·34; 45,292; 52 Procurement Bonus Schemes 21·62; 87,717; 23 Emergency Schemes 13·84; 62,880; 5 New Minor Schemes 1·86; 13,676; Excavation of Nonagang river 4·25; 4,860; Sonarpur-Arapaneh-Matla 138·72; 46,400; Bagjola-Ghuni-Jatragachi 108·93; 25,600; Improvement of Kamakhya Khal 3·52; 3,840. This does not include the area under river lift and tube-well irrigation schemes.

# DAMODAR VALLEY CORPORATION

(See under "Irrigation").

#### TWO DEVELOPMENT SCHEMES

The Ganga Barrage Scheme: Work in connection with the Ganga Barrage, also called Farakka Barrage Scheme, is now in progress.

Benefits expected from the barrage: 1. Improvement of the Calcutta Port; 2. Provision of a direct railway and road link between the northern and southern parts of the State; 3. Provision of an inland water route entirely through the Indian Union starting from Calcutta and going up to Bihar and Uttar Pradesh and ultimately to Assam.

#### POWER

Jaldhaka Hydro-Electric Scheme: Tapping of river Jaldhaka in north Bengal to generate 27 Mw of power at the first stage and 9 Mw at the second stage. The first unit was commissioned in April 1967 and the second

unit was installed in August 1967. Balasun Hydro-Electric Scheme: Harnessing of river Balasun in Darjeeling District. Suburban Electrification Scheme: Total Plan provision for colliery electrification, tube-well irrigation, Central Testing laboratory and suburban electrification schemes: Rs. 29·21 lakhs. Durgapur Power Station: With the increase in power demand both in public and private sectors around Durgapur, the State Government was called upon to expand the power station by installing 3 × 75 Mw and 1 × 150 Mw turboalternator sets. These units are designed for burning washery middlings. Two Units are already in operation.

Development in Transmission & Distribution System: With the beginning of the Third Five Year Plan, the West Bengal State Electricity Board started erecting 132 KV lines mainly for the purpose of supplying power to the Eastern Railway for track electrification in the suburban areas. A transmission scheme was undertaken under which 132 KV lines were drawn from Bandel to Dharampur from where a feeder line was extended upto Ranaghat to connect the North Calcutta Grid. Another radial feeder was extended to Ashokenagar and the third one on the southern direction to Titagarh. Power supply to Eastern Railway at Ranaghat, Ashokenagar and Titagarh was arranged. A double circuit 132 KV lines were also drawn from Bandel to Howrah and Liluah for bulk supply to the Calcutta Electric Supply Corporation Ltd. To arrange for bulk supply to the Farakka Barrage Project, 66 KV lines were further extended from Beldanga to Farakka. In North Bengal, extensive 66 KV line was drawn from Jaldhaka to Siliguri on the West and Jaldhaka to Cooch-Behar on the East covering the entire district of Jalpaiguri, Cooch-Behar and Darjeeling. On the distribution side, hundreds of miles of 33 KV lines and thousands of miles of 11 KV lines were drawn for bulk supply to a number of high voltage consumers and power supply to various towns and villages and hundreds of agricultural deep tube-wells.

#### INDUSTRY

Principal industries of the State: Jute, tea, coal, cotton, textiles, paper, rubber, engineering, etc.

No. of registered factories: 6,133 (1968). No. of workers: 8,65,927 (1968).

No. of jute mills: 81 in 1967 (employing about 2,32,000 workers, 1967).

Total acreage under jute cultivation in West Bengal: 1,041,300.

No. of cotton mills: 41 (Average no. of workers employed daily in all shifts 46,285; spindles 9,33,754; looms 9,944; raw cotton consumed in bales of 180 kgs. 27,519) (March 1968).

No. of tea gardens: 285 (250,000 workers). West Bengal produces about 90 million pounds of tea.

No. of coal mines: 228 (about 1,22,000 workers daily on an average). The total output of the West Bengal coal mines is about 16·3 million tons.

No. of paper mills: 8 (about 10,400 workers).

Main small scale industries: Handloom weaving, sericulture and silk, brass and bell metal, hand-made paper, palm gur and mat industries.

No. of looms engaged in handloom weaving: 1,61,000.

Principal centres of handloom weaving: Santipur (Nadia), Santiniketan (Birbhum), Rajbalhat, Dhaniakhali (Hooghly). Principal silk industry Districts: Malda, Murshidabad and Bankura.

The following is the gross group-wise value in lakhs of rupees of industrial output of the State in 1964 (latest available) and the percentage of the all-India output respectively: Textiles 259,88; 20.54; Iron and steel 208,73; 35.61; Rail-road equipment 80,59; 54.67; Miscellaneous food products 80,27; 16:58; Electrical machinery 65,32; 28.72; Machinery, except electrical 60,93; 28.13; Rubber products 51'97; 48.54; Electric light and power 46,46; 16'01; Grain mills 40'88; 28'55; Non-ferrous metal 40,10; 41-18; Miscellaneous chemical products 39,22; 18-34; Manufacture of motor vehicles 34,78; 16-94; Metal products, except machinery & transport equipment 33,75; 28-50; Paper and paper products 26,57; 25-61; Basic industrial chemicals including fertilisers 15,81; 7-90; Printing, publishing, etc. 14,32; 17-63; Miscellaneous manufacturing industries, n.e.c. 14,28; 38-80; Tobacco manufactures 13,53; 11.28; Paints, varnishes, etc. 10,27; 43.06; Ship-building and repairing 7,77; 48.32; Glass and glass products 7,65; 27.82; Motor cycles and bicycles 6,42; 15.90; Miscellaneous products of petroleum and coal 5,73; 22.81; Bakery products 5,21; 38.71; Textiles, n.e.c. 4,32; 4.38; Professional and scientific instruments 3,56; 24.57; Cordage rope and twines 3,49; 77.04; Repair of motor vehicles 3,31; 8.62; Pottery, china and earthenware 3,28; 32.96; Furniture and fixtures 3,14; 18.95; Non-metallic mineral products, n.e.c. 3,10; 7.86; Manufacture of dairy products 2,42; 8:01; Saw mills, etc. 2,16; 12:40; Tanneries 2,16; 11:84; Structural clay products 1,54; 6.82; Cork and wood products, n.e.c. 1,21; 42.31; Knitting mills 1,11; 16.57; Soft drinks and carbonated water 62; 13.93; Wearing apparel (except footwear) 47; 6.02; Canning & preserving of fruits and vegetables 42; 9.21; Wooden and cane containers 18; 10.40; Others\* 11,05; 2.37; Total (All industries) 1,217,94; 21 - 78.

#### LABOUR

No. of registered trade unions: 3,310 (1967).

No. of members of trade unions: about 1,200,000.

The Employees' State Insurance Act, which provides for sickness and other medical benefits, covers about 800,000 insured employees in Calcutta, Howrah, Hooghly and 24 Parganas. Their 2,400,000 family members are entitled to only medical benefits.

The Employees' Provident Funds Act covers 7,059 factories/establishments. Out of 1,429,654 employees employed in these factories/establishments at the end of 1967, 1,179,468 were regularly subscribing to the statutory fund.

No. of labour welfare centres run by Government : 46.

No. of tenements completed under the Subsidised Industrial Housing Scheme: about 11,938.

About 445,673 persons, including 31,392 women, were on the live register of Employment Exchanges at the end of 1967 in West Bengal.

Over 33,076 persons secured jobs through Employment Exchanges in the State during 1967.

#### ROADS

There are six national highways in West Bengal: Calcutta-Delhi (152 miles), Calcutta-Bombay/Madras (90 miles—common alignment in West Bengal), Bihar-Assam (225 miles), Siliguri-Gangtok (35 miles), Calcutta-Siliguri (203.5 miles) and Calcutta-Bongaon (43 miles).

Superior type of extra-municipal roads, maintained by P.W.D. and local bodies are 6,500 miles while the interior motorable type is 13,000 miles.

The estimated expenditure in the Third Plan on roads and bridges was about Rs.  $21 \cdot 56$  crores.

#### State Transport

The State managed transport in West Bengal comprises three Units e.g. (1) Calcutta State Transport Corporation, (2) North Bengal State Transport Corporation and (3) Durgapur State Transport Board.

Calcutta State Transport Corporation: Latest figures available (June 30,1968). No. of buses: 1,130, of which an average of 620 buses run daily. It employs nearly 13,750 persons of whom about 75 per cent are persons displaced from East Pakistan. It carries 11 lakh passengers daily on 29 routes. The average income per bus is Rs. 244 daily.

North Bengal State Transport Corporation: No. of buses: 206; trucks: 35. No. of persons employed: 1,500. No. of passengers carried daily: 48,000. The average monthly earning: Rs. 10·2 lakhs.

The Durgapur State Transport Board: No. of buses: 100. No of persons employed: 700. Average No. of persons daily carried: 30,000. Average monthly earning: Rs. 2.9 lakhs.

#### COMMUNITY DEVELOPMENT PROJECTS

The Community Development Projects now cover almost the entire population.

(See also main article "Community Development Projects").

#### **EDUCATION**

(See article on "Educational Statistics").

#### HEALTH (1967)

(Figures provisional. Per 1,000 population).

Birth rate: 40·8; Death rate: 13·6; Infant mortality: 120·0; Maternal mortality: 2·6; Death rate from T.B.: —50·0; Death rate from Cholera: —98·3; Death rate from small-pox: —95·0.

No. of hospitals, dispensaries and clinics: Clinics 599; Dispensaries 516; Hospitals 231; Health Centres 735; Primary 222 (Beds 3,450); Subsidiary 524 (Beds 1,982); Total no. of beds in hospitals: 22,430; No. of T.B. hospitals and Sanatoria: 39; T.B. chest clinics: 77; Mobile Units for domiciliary treatment of T.B. cases: 16; No. of T.B. beds: 4,837; Rural Health Centre beds: 5,496; Maternity and child welfare centres: 352; Maternity homes and hospitals: 18; Maternity beds: 6,213; Medical colleges: 6; No. of students in colleges: 655 (M.B.B.S.); Nursing training centres: 30; No. of seats: 2,287; Pharmacy training centre: 2; No. of students at the centre: 110; No. of beds for treatment of leprosy: 2,447; For venereal diseases: 70; For treatment of mental diseases: 1,458 (including 918 beds maintained by West Bengal Govt. in two Mental Hospitals at Ranchi and 90 beds of Bangiya Unmad Ashram, Dum Dum); V. D. clinics: 47; No. of beds for infectious diseases: 1,436; Family Planning centres: 1,041 (sterilization beds 165).

Per capita expenditure Rs. 4.63.

<sup>\*</sup> Relate to (1) sugar, (2) cocoa, chocolate and sugar confectionery, (3) alcohol, (4) wine industries, (5) breweries and malt manufacture, (6) ma ie-up textile goods except wearing apparel, (7) leather products except footwear and other wearing apparel, (8) vegetable and animal oils and fats (except edible oil), (9) aircraft, (10) transport equipment, n.e.c., (11) photographic and optical goods, (12) watches and clocks, (13) jewellery and related articles, (14) musical instruments, & (15) gas, both in West Bengal and all-India, and to (a) canning and preserving of fish and other sea foods. (b) footwear, (c) petroleum refineries and (d) cement in all-India only.

#### CORPORATION OF CALCUTTA

5, Surendra Nath Banerjee Road, Calcutta 13.

Mayor, Prasanta Sur.

Dy. Mayor, Nil Ratan Sinha.

Commissioner, M. C. Kutty.

Dy. Commissioner I. P. B. Guha.

Du. Commissioner II, S. N. Bose.

Secretary, Sailajananda Bhattacharya.

BUDGET 1968-69

Total Income: Rs. 16,93,14,000.

Total Expenditure: Rs. 16,80,95,000.

# EDUCATIONAL INSTITUTIONS UNIVERSITY OF CALCUTTA

Chancellor, S. S. Dhawan (Governor of West Bengal).

Vice-Chancellor, Dr. Satyendra Nath Sen, M.A., Ph.D.

Pro-Vice-Chancellor for Academic Affairs, Dr. P. K. Basu.

Pro-Vice-Chancellor for Business Affairs and Finance, H. M. Mazumdar.

Registrar, Arun Ray, M.Sc.

No. of affiliated Colleges: 199.

No. of University Colleges: 6.

Total no. of students: 1,23,000 boys and 52,355 girls (1967-68).

#### BUDGET (1969-70)

 Receipts
 ...
 ...
 Rs. 1,56,97,971

 Expenditure
 ...
 Rs. 2,26,00,665

 West Bengal Govt. grant
 ...
 Rs. 27,47,900

### THE UNIVERSITY OF BURDWAN

Rajbati, Burdwan

Chancellor, Governor of W. Bengal.

Vice-Chancellor, Dr. P. N. Bhaduri, M.Sc., Ph.D. (Lond.),

Registrar, S. M. Chatterji, M.Sc.

Teaching :

Courses provided at present and degrees.

Post-graduate Courses in Arts: English, History, Economics, Bengali, Sanskrit, Philosophy, Mathematics and Pol. Science.

Post-graduate Courses in Science: Physics, Chemistry, Mathematics, Botany, Zoology and Geography.

Post-graduate Course in Commerce: M.Com.

Post-graduate Course in Engineering: M.E., M.Tech.

Degree Courses (in affiliated Colleges): Arts (B.A.), Science (B.SC.), Commerce (B.Com.), Engineering (B.E.), Teachers' Training (B.T.), Dip. in Library Science, French, Music & Cert. in French & Music.

Honours Courses: (in affiliated Colleges): English, Bengali, Sanskrit, History, Economics, Philosophy, Arabic, French, Persian, Pol. Science, Physics, Chemistry, Mathematics, Botany, Zoology, Geography and Commerce.

Proficiency Course in Physics, Chemistry and Botany.

Medium of Instruction: English & Regional language

No. of students: In post-Graduate classes:—957 (1967-68). In affiliated Colleges:—31,846 (1967-68).

No. of affiliated Colleges: 42 (including one Engineering, and four Teachers' Training).

#### IADAVPUR UNIVERSITY

(P.O. Jadavpur University, Calcutta 32).

Unitary University.

Courses provided at present and Degrees :-

#### Engineering Courses:

Bachelor's Degree Courses (5-Year) in Architecture (B. Arch.); Chemical Engineering (B.Ch.E.); Civil Engineering (B.C.E.); Electrical Engineering (B.E.E.); Electronics and Tele-Communication Engineering (B.E.Tel.E.); Mechanical Engineering (B.M.E.); Metallurgical Engineering (B. Met. E.); Degree course (4-year) in Pharmacy; Evening Degree Courses (4-year course for Licentiates) in Civil Engineering (B.C.E.); Electrical Engineering (B.E.E.); Mechanical Engineering (B.M.E.); Degree course (3-year) in Food Technology and Bio-Chemical Engineering (B. Tech.); Instrumentation and Electronic Engineering (B. Tech.).

#### Post-Graduate Courses:

Master's Degree Courses (2-year) in Chemical Engineering (M.Ch.E.); Civil Engineering (M.C.E.); Electrical Engineering (M.E.E.); Electronics and Tele-Communication Engineering (M.E.Tel.E.); Mechanical Engineering (M.M.E.); Pharmacy (M.Pharm.); Food Technology (M. Tech.); Post-Graduate Diploma Course in Computer Science (1-year); Ph.D. (Engineering).

#### Science Courses:

Honours Degree courses (3-year) in Chemistry, Geological Sciences, Mathematics, Physics (B.Sc.).

#### Post-graduate Courses:

Master's Degree courses (2-year) in Chemistry, Mathematics (Pure) & (Applied), Physics and Geology (3-year) (M.Sc.).

Evening Post-graduate Courses (2-year for school teachers only) in Mathematics, (3-year for school teachers only) in Physics & Chemistry.

Ph.D. (Science) and D.Sc. degrees are instituted in the Faculty.

#### Arts Courses:

M. Litt. Courses (2-year) in International Relations and English.

Master's Degree courses (2-year) in Bengali, Comparative Literature, Economics, English, History, International Relations. Philosophy, Sanskrit (M.A.).

Honours Courses (3-year) in Bengali, Comparative Literature, Economics, English, History, Political Science, Philosophy, Sanskrit, German (B.A.).

Evening Post-graduate courses (2-year for school teachers only) in Bengali, Economics, English, History, Philosophy, Sanskrit (M.A.).

Ph.D. (Arts) and D.Litt. degree courses are also instituted in this Faculty.

Faculties: Arts, Science, Engineering and Technology.

Medium of instruction: English.

Number of Students: 5,162 (as on 30-9-69).

Chancellor: Vacant.

Vice-Chancellor: Prof. H. C. Guha.

Registrar : P. C. V. Mallik.

#### UNIVERSITY OF KALYANI

(P.O. Kalyani).

Teaching:

Courses provided at present and Degrees:—B.sc. (Ag.) Hons. 4-year integrated course; B.sc. Hons. (Animal Science) 4-year course; B.sc. Hons. in Chemistry, Physics, Botany and Zoology—3-year course; B.sc. Spl. Hons. in Botany & Zoology—1 year course; B.A. Hons. in Economics—3-year course; B.T.—one-year course; Diploma in Physical Education—1 year.

Post-graduate Courses: M.sc. in Chemistry (with special papers in Organic, Inorganic and Physical Chemistry), Physics, Zoology, Botany, Mathematics; M.sc. (Ag.) in Plant Pathology, Agronomy, Horticulture, Cytogenetics, Soil Science, Entomology, Agricultural Extension and Agricultural Economics; M.A. in Economics; M.A. in Sociology.

Medium of instruction: English.

Number of Students as of Feb. 1968: Agriculture (including Animal Science) 832, Science 437, Arts 202, Physical Education 31, B.T. 159, Research for Ph.D. in Science 26, Research for Ph.D. in Agriculture 16, Research for Ph.D. in Arts 1.

Chancellor: Governor, West Bengal; Vice-Chancellor: S.K. Mukherjee, D.Sc.; Registrar: S. N. Chakrabarti, M.Sc.

#### UNIVERSITY OF NORTH BENGAL

P.O. North Bengal University, Raja Rammohunpur, Darjeeling.

Chancellor: S. S. Dhawan, Governor of West Bengal; Vice-Chancellor: Prof. A. C. Roy; Registrar: B. K. Bajpaie.

Post-Graduate Departments: Faculty of Arts: Bengali, Commerce, Economics, English, History, Philosophy, and Political Science. Faculty of Science: Chemistry, Geography and Applied Geography, Mathematics and Physics.

Number of Colleges: Constituent Colleges: 2; Univerversity Colleges 4; Affiliated Colleges: 21.
Number of Students (1968-69):

Post-Graduate: 705, Degree Course: 12,317; Pre-University and Pre-Medical: 4,235.

# RABINDRA BHARATI UNIVERSITY

Calcutta-7

It is an affiliating and teaching University. The media of instruction are English and Bengali.

Chancellor: Governor of West Bengal.

Vice-Chancellor: Dr. (Smt.) Roma Choudhury.

Registrar: Bhaba Ranjan De.

Number of Affiliated Institutions: 30.

University Teaching Departments: 8.

Number of students (1968-69): 1,688.

#### VISVA-BHARATI

Santiniketan, West Bengal.

Founded by Rabindranath Tagore in 1921; incorporated as a Central University, 1951.

It is a unitary, teaching and residential university.

Visva-Bharati maintains the following Institutions:

Patha-Bhavana (School), Siksha-Bhavana (College of Graduate Studies), Vidya-Bhavana (College of Post-Graduate Studies and Research), Vinaya-Bhavana (Teachers' Training College), Kala-Bhavana (College of Music and Dance), Rabindra-Bhavana (College of Music and Dance), Rabindra-Bhavana (College of Study and Research in the Life and Writings of Tagore) and Palli-Siksha-Sadana (Institute of Graduate studies in Agriculture and Social Sciences). The University maintains also the following Research Departments: (1) Cheena-Bhavana, (2) Indo-Tibetan Institute, (3) Hindi-Bhavana, which organise teaching and Research in Chinese, Tibetan and Hindi respectively.

The Visva-Bharati Central Library contains 2,06,787 volumes including periodicals. There are sectional and seminar libraries attached to various departments. The University has its own hospital with a Chief Medical Officer and his assistants. The Guest House, which makes catering arrangements of its own, is open to visitors and guardians.

Besides the academic institutions, the University conducts two Departments: one for Rural Reconstruction and the other for Publication of Books.

A two-year Certificate Course in Indian and Foreign languages viz. Sanskrit, Bengali, Hindi, Oriya, Chinese, Japanese, Tibetan, French, German and English is available to Post-Graduate and Under-Graduate students. Those who have successfully completed the Certificate Course may continue another year's further study for the Diploma in the same languages.

Silpa-Sadana (Cottage Industry Training Centre) provides 2-year Certificate course and 3-year Diploma course in Weaving and Woodwork.

Siksha-Charcha (Junior Basic Teachers' Training College), sponsored by the West Bengal Government, provides one year certificate course in both theory and practice of Basic Education.

The Home-Economic Training Centre sponsored by the Govt. of West Bengal provides for one-year job training course in home science to gram sevikas.

The Family and Child Welfare Training Centre sponsored by the Central Social Welfare Board, Govt. of India offers Orientation Training Course in Family and Child Welfare Programme for the women field workers deputed from different States.

A scheme of agro-economic research is being conducted at the university under the auspices of the Ministry of Food and Agriculture, Govt. of India.

Budget for 1969-70 (Provisional):

Maintenance Expenditure	
	Rs.
Santiniketan & Sriniketan	71,53,861
Development Budget	
(a) To be met from U.G.C. Grants	26,97,604
(b) From grants other than U.G.C	73,35,336
(c) Palli Samgathana Vibhaga (Sriniketan)	20,77,401
Palli Siksha Sadana (College of Agriculture & Social Sciences)	
(a) Maintenance Budget	16,59,812
(b) Development Budget	10,05,000

Chancellor: Smt. Indira Gandhi; Vice-Chancellor: Vacant; Registrar: B. R. Basu.

#### **ASSOCIATIONS**

ALL BENGAL PHYSICAL CULTURE ASSOCIATION 5, Krishna Bihari Sen Street, Calcutta 7.

ALL-BENGAL TEACHERS' ASSOCIATION 15, Bankim Chatterjee Street, Calcutta 12.

ALL BENGAL WOMEN'S UNION 89, Elliot Road, Calcutta 16.

ALL-INDIA ASTROLOGICAL AND ASTRONOMICAL SOCIETY

"Jyotish-Samrat Bhaban", 50/2, Dharamtolla Street, Calcutta 13.

> ALL INDIA CHAIN ASSOCIATION, 29-B, Bentinck St., Calcutta 1.

ALL INDIA INVESTORS' ASSOCIATION 7, Lyons Range, Calcutta 1.

ALL-INDIA JUTE MILL BOBBIN MANUFACTURERS' ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

ALL INDIA LAWN TENNIS ASSOCIATION 90-A, Bokulbagan Road, Calcutta 25.

ALL-INDIA MARWARI FEDERATION 152-C, Mahatma Gandhi Road, Calcutta 7.

ALL INDIA RADIO MERCHANTS' ASSOCIATION 3/C, Madan St., Calcutta 13.

ALL INDIA SAW MILLS ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

ALL INDIA SHEET GLASS MANUFACTURERS
ASSOCIATION

C/o Hindustan Pilkington Glass Works Ltd., 4, Chittaranjan Avenue, Calcutta 13.

ALL INDIA SMALL-SCALE BATTERY
MANUFACTURERS ASSOCIATION
4/1B, Telipara Lane, Calcutta 4.

ALL INDIA WOMEN'S CONFERENCE
CALCUTTA BRANCH

11, Palit Street, Calcutta 19.

ARCHBISHOP'S HOUSE 32, Park Street, Calcutta 16.

AROMATIC TRADERS' ASSOCIATION Ezra Street, Calcutta 1.

ARYA SAMITY
Arya Samity Road, Behala, Calcutta 34.

THE ASIATIC SOCIETY
1, Park Street, Calcutta 16.

ASSOCIATION OF ENGINEERS 24, Netaji Subhas Road, Calcutta 1.

ASSOCIATION OF MASTER PRINTERS WEST BENGAL LTD. 32, Acharya Prafulla Chandra Road, Calcutta 9. ASSOCIATION FOR THE PREVENTION OF BLINDNESS

94, Chittaranjan Avenue, Calcutta 12.

ASSOCIATION OF RUBBER MANUFACTURERS IN INDIA

Dunlop House, 57-B, Free School Street, Calcutta 16.

ASSOCIATION OF SMALL-SCALE BATTERY INDUSTRY

114A, Shyamaprosad Mukherjee Road, Calcutta 26.

ASWINI KUMAR INSTITUTE 5, Janak Road, Calcutta 29.

AUTOMOBILE ASSOCIATION OF EASTERN INDIA

13, Ballygunge Circular Road, Calcutta 19.

AUTOMOTIVE MANUFACTURERS' ASSOCIATION India Exchange, India Exchange Place, Calcutta 1.

BALL & ROLLER BEARING MANUFACTURERS
ASSOCIATION OF INDIA
49/1, Gariahat Road, Calcutta 19.

BANGIYA BIJNAN PARISHAD 294/2/1, Acharya Prafulla Chandra Road, Calcutta 9.

BANI MANDIR WOMEN'S EDUCATION SOCIETY 2, Williams Lane, Calcutta 9.

BENGAL BONDED WAREHOUSE ASSOCIATION 25, Netaji Subhas Road, Calcutta 1.

BENGAL BRATACHARI SOCIETY 191/1, Bepin Behari Ganguly Street, Calcutta 12.

BENGAL CHEMISTS' & DRUGGISTS'
ASSOCIATION
10, Bonfield Lane, Calcutta 1.

BENGAL GALVANIZED SHEET MERCHANTS'
ASSOCIATION
20, Strand Road, Calcutta.

BENGAL GLASS MANUFACTURERS'
ASSOCIATION

P-11, Mission Row Extension, Calcutta 1.

BENGAL HOSIERY MANUFACTURERS'
ASSOCIATION

219. Bepin Behari Ganguli Street, Calcutta 12.

BENGAL JUTE DEALERS' ASSOCIATION 4, Commercial Buildings, 23A, Netaji Subhas Road, Calcutta.

BENGAL LIBRARY ASSOCIATION Central Library, Calcutta University, Calcutta 12.

BENGAL MASONIC ASSOCIATION Freemasons' Hall, 19, Park Street, Calcutta.

BENGAL MILLOWNERS' ASSOCIATION 2, Church Lane, Calcutta 1.

BENGAL MOTION PICTURE ASSOCIATION 2, Madan Street, Calcutta 13.

BENGAL PHARMACEUTICAL ASSOCIATION 182, Acharya Jagdish Bose Road, Calcutta 14.

BENGAL SILK & ART SILK MILLOWNERS'
ASSOCIATION

C/o Swadeshi Industries Ltd., 33, Netaji Subhas Road, Calcutta 1.

> BENGAL TABLE TENNIS ASSOCIATION 86, College Street, Calcutta 12.

BENGAL TAXI ASSOCIATION 157B, Dharamtolla Street, Calcutta 13.

BENGAL TEXTILE DEALERS' ASSOCIATION 30, Cotton Street, Calcutta 7.

BENGAL THEOSOPHICAL SOCIETY 4/3A, Bankim Chatterjee Street, Calcutta 12.

BENGAL TRADES ASSOCIATION
P-11, Mission Row Extension, Calcutta 1.

BENGAL TUBERCULOSIS ASSOCIATION 21, Dr. Sundari Mohan Avenue, P.O. Entally, Calcutta 14.

BHARAT CHEMICAL IMPORTERS AND DISTRIBUTORS ASSOCIATION
P-11, Mission Row Extn., Calcutta 1.

BHARAT JUTE SELLERS' ASSOCIATION 2, India Exchange Place, Calcutta 1.

BHARAT SCOUTS AND GUIDES 5, Government Place North, Calcutta 1.

BHARAT TEXTILE CHAMBER 208, Jamunalal Bazaz Street, Calcutta 7.

BHARAT SMALL RE-ROLLERS ASSOCIATION LTD. 66, G. T. Road, Liluah, Howrah.

BIBLE SOCIETY OF INDIA AND CEYLON 23, Chowringhee, Calcutta 13.

BILLIARDS ASSOCIATION & CONTROL COUNCIL OF INDIA

C/o Great Eastern Hotel, 1, 2, & 3, Old Court House Street, Calcutta 1.

BLANKET AND SHAWL TRADERS' ASSOCIATION 30, Cotton Street, Calcutta 7.

BOHURUPEE 11A, Nasiruddin Road, Calcutta 17.

BOSE INSTITUTE 93/1, Upper Circular Road, Calcutta 9.

BOTANICAL SOCIETY OF BENGAL 35, Ballygunge Circular Road, Calcutta 19.

BUCKET MANUFACTURERS' ASSOCIATION OF INDIA

India Exchange, 7th Floor, Calcutta.

BUDDHIST SOCIETY OF INDIA & BUDDHIST MISSION OF INDIA 31/1, Baghbazar St., Calcutta 3.

BUILDERS' ASSOCIATION OF INDIA (Eastern Centre)

8, Pran Krishna Mukherjee Road, Calcutta 2.

BUILDERS' HARDWARE INDUSTRIES ASSOCIATION OF INDIA

India Exchange, 7th Floor, Calcutta 1.

CALCUTTA ASSOCIATION FOR UNITED NATIONS 62, Bowbazar Street, Calcutta 12.

CALCUTTA BALED JUTE ASSOCIATION 6, Netaji Subhas Road, Calcutta 1.

CALCUTTA BLIND SCHOOL Diamond Harbour Road, Behala, Calcutta 34.

CALCUTTA CABINET MAKERS' & FURNISHERS' ASSOCIATION

254-K, Bipin Behari Ganguly St., Calcutta 12.

CALCUTTA CRICKET CLUB 19/1, Gurusaday Road, Ballygunge, Calcutta.

CALCUTTA DEAF & DUMB SCHOOL (Trg. College for the Teachers of the Deaf) 293, Acharya Prafulla Ch. Road, Calcutta 9.

CALCUTTA DOCTORS' ASSOCIATION 13-C, Jadu Pandit Road, Calcutta 6.

CALCUTTA ELECTRIC TRADERS ASSOCIATION 12, Chitpur Road,
Calcutta 1.

CALCUTTA FLOUR MILLS ASSOCIATION 6, Netaji Subhas Road, Calcutta 1.

CALCUTTA FREIGHT BROKERS ASSOCIATION Royal Exchange, 6, Netaji Subhas Road, Calcutta 1.

CALCUTTA GLASS, BOTTLE & CORK MERCHANTS' ASSOCIATION 6, Ezra Street, Calcutta 1.

CALCUTTA HIDE & SKIN TRADERS ASSOCIATION
52, Narkeldanga North Road,
Calcutta 11.

CALCUTTA HOTEL & BOARDING HOUSE ASSOCIATION

27/C, Amherst Street, Calcutta 9.

CALCUTTA HYDRAULIC PRESS ASSOCIATION 6, Netaji Subhas Road, Calcutta.

CALCUTTA IMPORT TRADE ASSOCIATION Royal Exchange, Calcutta-1.

CALCUTTA JUTE FABRICS SHIPPERS' ASSOCIATION

Royal Exchange, Calcutta 1.

CALCUTTA MATHEMATICAL SOCIETY
92 Acharya Prafulla Chandra Road, Calcutta 9.

CALCUTTA MEDICAL AID & RESEARCH SOCIETY
Jadavpur, Calcutta 32.

Kumud Sankar Ray Tuberculosis Hospital Jadavpur; S. B. Dey Sanatorium, Kurseong (Darjeeling). CALCUTTA METAL MERCHANTS' ASSOCIATION P-11, Mission Row Extension, Calcutta.

CALCUTTA MOTOR DEALERS' ASSOCIATION 16, Rajendranath Mukherji Road, Calcutta 1.

CALCUTTA NATIONAL MEDICAL INSTITUTE 32, Gorachand Road, Calcutta 14.

CALCUTTA NURSES ASSOCIATION 65-A, Dharamtolla Street, Calcutta 13.

CALCUTTA ORPHANAGE 12/1, Balaram Ghosh Street, Calcutta 4.

CALCUTTA PAPER TRADERS ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

CALCUTTA PINJRAPOLE SOCIETY 34, Armenian Street, Calcutta.

CALCUTTA PRODUCTIVITY COUNCIL 9, Syed Amir Ali Avenue, Calcutta-17.

CALCUTTA PROVISION AND TOILET DEALERS ASSOCIATION

A-101, Bagree Market, Calcutta 1.

CALCUTTA RICE MILLS ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

CALCUTTA STATISTICAL ASSOCIATION

C/o Dept. of Statistics, Calcutta Univ.

New Science Bldg., 35, Ballygunge, Circular Road,
Calcutta 19.

CALCUTTA STEVEDORES ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

CALCUTTA STOCK EXCHANGE ASSOCIATION LTD. 7, Lyons Range, Calcutta 1.

CALCUTTA TEA MERCHANTS' ASSOCIATION India Exchange, 8th floor, India Exchange Place, Calcutta 1.

CALCUTTA TEA TRADERS' ASSOCIATION
Royal Exchange, 6, Netaji Subhas Road, Calcutta.
Chairman: U. K. Patel; Vice-Chairman: A. Mukherji;
Secretary: W. M. Paris.

CALCUTTA TIMBER MERCHANTS' ASSOCIATION 65/1, Maharshi Devendra Road, Calcutta 6.

CALCUTTA TRADES ASSOCIATION 18-H, Park Street, Stephen Court, Calcutta 16.

CALCUTTA WATCH DEALERS' ASSOCIATION P-36, Radha Bazar St., Calcutta 1.

CALCUTTA YARN MERCHANTS' ASSOCIATION 89, Cross Street, Calcutta 7.

THE CALEDONIAN SOCIETY, CALCUTTA 6, Netaji Subhas Road, Calcutta 1.

CARDIOLOGICAL SOCIETY OF INDIA 3, Creek Row, Calcutta 14.

CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE Durgapur 9. CHEMICALS AND ALLIED PRODUCTS EXPORT PROMOTION COUNCIL 14/1-B, Ezra Street, Calcutta 1.

Chairman: H. L. Somany; Secretary: M. G. Joshi.

CHITTARANJAN NATIONAL CANCER RESEARCH CENTRE

37, Syamaprosad Mukherjee Road, Calcutta 26.

COSSIPORE INSTITUTE
43, Cossipore Road, Calcutta 36.
(Social Club, Library and Free Reading Room).

CYCLE MANUFACTURERS ASSOCIATION OF INDIA

India Exchange, India Exchange Place, Calcutta-1.

DAKSHINEE

'Dakshinee-Bhaban', 1, Deshapriya Park West, Calcutta 26. Tagore-Culture Society.

EARTHMOVING EQUIPMENT PARTS ASSOCIATION OF EASTERN INDIA 10/1, Princep Street, Calcutta 13.

EAST INDIA CHARITABLE TRUST 51, Chowringhee, Calcutta 16.

EAST INDIA JUTE & HESSIAN EXCHANGE LTD.
43, Netaji Subhas Road, Calcutta 1.

EAST INDIA METAL MERCHANTS ASSOCIATION

195, Mahatma Gandhi Road, Calcutta 7.

EAST INDIA OIL MILLERS' ASSOCIATION State Bank Building (Burrabazar Branch), 195, M. Gandhi Road, Calcutta 7.

EAST INDIA PHOTOGRAPHIC TRADERS' ASSOCIATION

State Bank Bldg. (Burrabazar Branch), 195, M. Gandhi Road, Calcutta 7.

EAST INDIA RICE MILLS ASSOCIATION 195, Mahatma Gandhi Road, Calcutta 7.

EASTERN REGIONAL ELECTRICAL CONTRACTORS' ASSOCIATION (INDIA) LTD. 12/1A, Lindsay St., Calcutta 16.

EMPLOYERS' ASSOCIATION India Exchange Building (Seventh Floor), India Exchange Extension, Calcutta 1.

ENGINEERING ASSOCIATION OF INDIA
Indian Exchange, Calcutta 1.

President: S. N. Rungta; Secretary-General: C. S. Pande; Secretary: Dr. R. D. Vidyarthi.

ENGINEERING EXPORT PROMOTION COUNCIL 14/1B, Ezra Street (3rd floor), Calcutta 1.

FAN MAKERS' ASSOCIATION OF INDIA India Exchange, India Exchange Place, Calcutta 1.

FEDERATION OF SMALL AND MEDIUM INDUSTRIES, WEST BENGAL P-11, Mission Row Extension, Calcutta 1. GAUDIYA MISSION

H.O.: Sri Gaudiya Math, 16A, Kali Prasad Chakravarty Street, Baghbazar, Calcutta 3.

GEOGRAPHICAL SOCIETY OF INDIA
Dept. of Geography, Calcutta University, 35, Ballygunge,
Circular Road, Calcutta 19.

GEOLOGICAL, MINING AND METALLURGICAL SOCIETY OF INDIA

Geology Dept., Calcutta University, Calcutta-19.

GUNNY TRADES ASSOCIATION 5, Clive Row, Calcutta 1.

HARIJAN SEVAK SANGH 1, Dover Lane, Calcutta 29.

HELMINTHOLOGICAL SOCIETY OF INDIA 34, Chittaranjan Avenue, Calcutta 12.

HIMALAYAN MOUNTAINEERING INSTITUTE
Jawahar Parbat, Darjeeling.

HINDU MILAN MANDIR 211, Rash Behari Avenue, Ballygunj, Calcutta. 500 Branches throughout India.

HINDU SATKAR SAMITY
HINDU PILGRIMS' PROTECTION SOCIETY
HIND SEVA SAMITY

93. Mahatma Gandhi Road, Calcutta 7.

HIRE PURCHASE ASSOCIATION Royal Exchange, 6, Netaji Subhas Road, Calcutta 1.

HOTEL & RESTAURANT ASSOCIATION OF CALCUTTA REGION Spences Hotel, 4, Wellesley Place, Calcutta 1.

HOWRAH MANUFACTURERS' ASSOCIATION 198, Bellilios Road, Howrah.

INDIAN AMATEUR BOXING FEDERATION 131/A, Akhil Mistry Lane, Calcutta 9.

INDIAN ARTS & CRAFTS EXPORTERS
ASSOCIATION

98, Chowringhee Place, Calcutta 13.

INDIAN ASSOCIATION 62, Bowbazar Street, Calcutta 12.

An Association for the promotion of political, intellectual and material advancement of the people.

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Jadavpur, Calcutta 32.

INDIAN BOARD MILLS ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

INDIAN BOLT AND NUT MANUFACTURERS' ASSOCIATION

India Exchange, 8th Floor, India Exchange Place, Calcutta.

INDIAN CARPET MANUFACTURERS'
ASSOCIATION

9B, Chowringhee Place, Calcutta 13.

INDIAN CHEMICAL MANUFACTURERS
ASSOCIATION

'India Exchange,' India Exchange Place, Calcutta 1.

Bombay Regional Office:

Sir Vithaldas Chambers, Apollo Street, Bombay 1.

INDIAN CHEMICAL MERCHANTS'
ASSOCIATION

India Exchange, India Exchange Place, Calcutta 1.

INDIAN CHEMICAL SOCIETY 92, Acharya Prafulla Chandra Road, Calcutta 9.

INDIAN CONFECTIONERY
MANUFACTURERS' ASSOCIATION
India Exchange, India Exchange Place, Calcutta 1.

INDIAN COPPER INFORMATION CENTRE 27B, Camae Street, Calcutta 16.

INDIAN CYCLE TRADERS' ASSOCIATION 67, Bentinck Street, Calcutta-1.

INDIAN ELECTRICAL MANUFACTURERS'
ASSOCIATION
India Exchange, 7th floor, Calcutta.

INDIAN ENGINEERING ASSOCIATION

6, Netaji Subhas Road, Calcutta.

INDIAN FOOTBALL ASSOCIATION
34/A, Dharamtolla St., Calcutta 13.

INDIAN FOUNDRY ASSOCIATION
India Exchange, 7th floor, India Exchange Place,
Calcutta 1.

INDIAN HEMP ASSOCIATION
India Exchange, India Exchange Place, Calcutta 1.

INDIAN INSTITUTE OF CHEMICAL ENGINEERS

Jadavpur University, Calcutta 32.

INDIAN INSTITUTE OF MANAGEMENT "Emerald Bower"

56-A, Barrackpore Trunk Road, Calcutta 50.

INDIAN INSTITUTE OF METALS 31, Chowringhre Road, Calcutta 16.

INDIAN INSTITUTE OF PERSONNEL MANAGEMENT Artistry House, 15, Park Street, Calcutta 16.

INDIAN INSTITUTE OF SOCIAL WELFARE AND BUSINESS MANAGEMENT College Square West, Calcutta 7.

INDIAN INSURANCE COMPANIES ASSOCIATION India Exchange, India Exchange Place, Calcutta 1.

INDIAN INSURANCE INSTITUTE
P-11, Mission Row Extension, Calcutta 1.

INDIAN JOURNALISTS' ASSOCIATION 249-B, Bepin Behari Ganguly Street, Calcutta 12.

INDIAN JUTE INDUSTRIES' RESEARCH ASSOCIATION 17, Taratola Road, Calcutta-53. INDIAN JUTE MILLS ASSOCIATION Royal Exchange, Calcutta.

Chairman: R. P. Goenka.

INDIAN KAPOK MILLS' ASSOCIATION 16, Satyanarain Temple Road, Salkia (District Howrah).

INDIAN LAC EXPORTERS ASSOCIATION
Royal Exchange, Calcutta.

INDIAN LAMP FACTORIES ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

INDIAN LEAD/ZINC INFORMATION CENTRE 5A, Lord Sinha Road, Calcutta 16.

INDIAN LEGAL AID SOCIETY 6/1, Lindsay Street, Calcutta 16.

INDIAN MEDICAL ASSOCIATION
Bengal State Branch
67, Dharamtolla Street, Calcutta-13.

INDIAN MEDICAL FORUM 13, Ezra Street, Calcutta 1.

INDIAN MINING FEDERATION
135, Biplabi Rashbehari Basu Road, Calcutta 1.

INDIAN MUSEUM 27, Jawaharlal Nehru Road, Calcutta 13.

INDIAN NON-FERROUS METALS MANUFACTURERS' ASSOCIATION India Exchange, India Exchange Place, Calcutta.

INDIAN PAINT ASSOCIATION India Exchange, India Exchange Place, Calcutta 1.

INDIAN PAPER MAKERS' ASSOCIATION 6, Netaji Subhas Road, Royal Exchange, Calcutta 1.

INDIAN PAPER MILLS ASSOCIATION India Exchange, India Exchange Place, Calcutta 1.

INDIAN PEDIATRIC SOCIETY 95, Dilkhusa Street, Calcutta 17.

INDIAN PENCIL MANUFACTURERS' ASSOCIATION P-11, Mission Row Extension, Calcutta.

INDIAN PHARMACEUTICAL ASSOCIATION 60/1, Chowringhee Road, Calcutta 20.

INDIAN PHILOSOPHICAL CONGRESS Visva-Bharati University, Santiniketan. Krishnagar College, Krishnagar, Nadia, West Bengal.

INDIAN PHYSICAL SOCIETY
2 & 3, Raja Subodh Mallik Road, Calcutta 32.

INDIAN PIPE MANUFACTURERS'
ASSOCIATION

India Exchange, 7th Floor, India Exchange Place, Calcutta 1.

INDIAN PLASTICS FEDERATION 134/1, Mahatma Gandhi Road, Calcutta 7.

INDIAN PRODUCE ASSOCIATION 205, Rabindra Sarani, Calcutta 7.

INDIAN PSYCHOTHERAPEUTICAL SOCIETY P-23, C.I.T. Road, Scheme No. 49, Calcutta 14.

INDIAN PUBLIC HEALTH ASSOCIATION 110, Chittaranjan Avenue, Calcutta 12.

INDIAN PUMP MANUFACTURERS' ASSOCIATION India Exchange, 7th Floor, Calcutta 1.

INDIAN RED CROSS SOCIETY
(West Bengal State Branch)

5 & 6, Government Place North, Calcutta.

INDIAN REFRACTORY MAKERS' ASSOCIATION 6, Netaji Subhas Road, Calcutta 1.

INDIAN ROPE MANUFACTURERS'
ASSOCIATION

India Exchange, India Exchange Place, Calcutta 1.

INDIAN RUBBER INDUSTRIES ASSOCIATION
24, Subhas Road,
Calcutta 1.

INDIAN RUBBER PROOFERS ASSOCIATION
41, Theatre Road, Calcutta 16.

INDIAN SCIENCE CONGRESS ASSOCIATION 64, Dilkhusa Street, Calcutta-17.

INDIAN SOAP AND TOILETRIES MAKERS'
ASSOCIATION

P-11, Mission Row Extension, Calcutta 1, INDIAN SOCIETY FOR QUALITY CONTROL

Indian Society for Quality Control India Exchange, 7th floor, Calcutta 1. INDIAN SOCIETY OF ENGINEERS 12-B, Netaji Subhas Road, Calcutta 1.

INDIAN SOCIETY OF EQUITATION AND HORSEMASTERSHIP
51, Chowringhee, Calcutta 16.

INDIAN SOCIETY OF HAEMATOLOGY 1/25, Prince Golam Mohammad Road, Calcutta 26.

INDIAN SOCIETY OF THEORETICAL AND APPLIED MECHANICS

Kharagpur.

INDIAN STATISTICAL INSTITUTE 203, Barrackpore Trunk Road, Calcutta 35.

INDIAN STRAWBOARD MANUFACTURERS' ASSOCIATION

State Bank Building (Burrabazar Branch), Calcutta 7.

INDIAN SUGAR MILLS ASSOCIATION
India Exchange, Calcutta 1.

INDIAN TEA ASSOCIATION Exchange, 6, Netaji Subhas Road, Calcut

Royal Exchange, 6, Netaji Subhas Road, Calcutta 1. Chairman: M. Lamond; Vice-Chairman: R. L. Mellor; Senior Adviser: P. J. Parr.

INDIAN TEA PLANTERS' ASSOCIATION Post Box No. 74, Jalpaiguri.

INDIAN UNION MINERALS ASSOCIATION C/o S. Lal & Co. Pvt. Ltd., 15 Chittaranjan Ave., Calcutta-13.

INDIAN WIRE INDUSTRIES ASSOCIATION 222, Rabindra Sarani, Calcutta 7.

INDIAN ZINC OXIDE MANUFACTURERS'
ASSOCIATION

India Exchange, India Exchange Place, Calcutta 1.

INDIAN WIRE ROLE MANUFACTURERS ASSOCIATION

India Exchange (8th Floor), India Exchange Place, Calcutta-1.

INDIGENOUS BELTING INDUSTRIES
ASSOCIATION

P-11, Mission Row Extension, Calcutta 1.

INDUSTRIAL FASTENERS ASSOCIATION OF INDIA

India Exchange, 7th Floor, India Exchange Place, Calcutta 1.

INK MANUFACTURERS' ASSOCIATION P-11, Mission Row Extension, Calcutta 1.

INSTITUTE OF ASIAN-AFRICAN RELATIONS 108, Raja Basanta Roy Road, Calcutta 29.

INSTITUTE OF CATERING TECHNOLOGY & APPLIED NUTRITION
21, Convent Road, Calcutta 14.

INSTITUTE OF CHILD HEALTH 95, Dilkhusa Street, Calcutta 17.

INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA 12, Sudder Street, Calcutta 16.

While the headquarters of the Institute is at Calcutta, its Regional Councils are established in Bombay, Madras, Calcutta and Delhi. There are also about 25 Chapters of Cost Accountants, i.e. associations of members and students of the Institute, functioning in different industrial centres.

INSTITUTE OF INDIAN FOUNDRYMEN 1/2, Allenby Road, Calcutta 20.

INSTITUTE OF JUTE TECHNOLOGY 35, Ballygunge Circular Road, Calcutta 19.

INSTITUTION OF CHEMISTS (INDIA) Chemical Dept., Medical College, Calcutta 12.

INSTITUTION OF ENGINEERS (INDIA) 8, Gokhale Road, Calcutta 20.

> IRAN SOCIETY 12, Kyd Street, Calcutta 16.

JUTE AGRICULTURAL RESEARCH INSTITUTE Barrackpore (W. Bengal).

JUTE BALERS' ASSOCIATION
12, India Exchange Place, Calcutta 1.

JUTE BROKERS ASSOCIATION India Exchange, Calcutta-1.

JUTE FABRIC BROKERS' ASSOCIATION Royal Exchange, Calcutta 1. LANTERN MANUFACTURERS' ASSOCIATION India Exchange (7th Floor), Calcutta.

LIGHTHOUSE FOR THE BLIND 174, Syamaprosad Mookerjee Road, Calcutta 26.

MACHINE TOOL TRADES ASSOCIATION India Exchange, India Exchange Place, Calcutta 1.

MAGNET WIRES & CABLES MANUFACTURERS ASSOCIATION

C/o Indian Cable Co., Ltd., 9, Hare Street, Calcutta 1.

MAHA BODHI SOCIETY OF INDIA 4-A, Bankim Chatterji Street, Calcutta 12.

Centres: Sarnath, Gaya, New Delhi, Buddhagaya, Bombay, Madras, Lucknow, Ajmer, Kalimpong, Cuttack and Sanchi.

> MAHILA SEVA SAMITY 8, Government Place, Calcutta 1.

MANIMELA MAHAKENDRA
Rabindra Sarobar Stadium, Block-11, Room V,
Calcutta 29.
Has 300 branches.

MARWARI ASSOCIATION 160A, Chittaranjan Avenue, Calcutta.

MARWARI RELIEF SOCIETY 391, Upper Chitpur Road, Calcutta 7.

MASTER STEVEDORES' ASSOCIATION Royal Exchange, Calcutta 1.

MICA EXPORT PROMOTION COUNCIL 14/1B, Ezra Street, Calcutta 1.

MILAN MANDIR AND RAKSHIDAL 211, Rash Behari Avenue, Calcutta 19.

MINING, GEOLOGICAL AND METALLURGICAL INSTITUTE OF INDIA
29, Chowringhee Road, Calcutta 16.

MOTOR INDUSTRIES ASSOCIATION 6, Netaji Subhas Raod, Calcutta 1.

NARKELDANGA SIR GOOROODAS INSTITUTE 27, Sir Gooroodas Road, Narkeldanga, Calcutta 11.

> NATIONAL SWIMMING ASSOCIATION Pavilion, Azad Hind Bagh, Calcutta 6.

OIL PRESSURE LAMP INDUSTRIES ASSOCIATION 138, Canning Street, Calcutta 1.

OVERSEAS GENERAL INSURERS' ASSOCIATION Royal Exchange, Calcutta 1.

P. E. N. ALL-INDIA WRITERS' ASSOCIATION
West Bengal Branch
72, Hindusthan Park, Calcutta 29.

PASTEUR INSTITUTE, SCHOOL OF TROPICAL MEDICINE

Chittaranjan Avenue, Calcutta 12.

PHYSIOLOGICAL SOCIETY OF INDIA 50/2, Dharamtolla Street, Calcutta-13.

PLYWOOD MANUFACTURERS' ASSOCIATION OF INDIA

P-11, Mission Row Extension, Calcutta 1.

PLYWOOD MANUFACTURERS' ASSOCIATION OF WEST BENGAL

22, Strand Road, Calcutta 1.

PUBLISHERS & BOOKSELLERS ASSOCIATION OF WEST BENGAL

93, M. Gandhi Road, Calcutta 7.

PURCHASING OFFICERS ASSOCIATION OF INDIA 8B, Short Street, Calcutta 16.

RAMAKRISHNA MATH AND MISSION (P. O. Belur Math, Dt. Howrah).

The Ramakrishna Math and Mission are Organisations, founded by Swami Vivekananda, for missionary, philanthropic and educational service of both sexes, irrespective of caste, creed or colour. It lays special emphasis on the spread of the harmonizing spiritual and cultural ideas of India.

The Ramakrishna Mission has 72 centres spread over India, Pakistan, Burma, Ceylon, Singapore, Fiji, Mauritius and France.

The Ramakrishna Math has 63 centres spread over India, Pakistan, Europe, U.S.A., and Argentina.

RAMAKRISHNA MISSION INSTITUTE OF CULTURE

21, Gol Park, Calcutta 29.

RAMAKRISHNA VEDANTA MATH 19-B, Raja Rajkrishna Street, Calcutta 6.

REFRIGERATION TRADES ASSOCIATION C/o Air Conditioning Corporation Ltd., 17, Taratolla Road, Calcutta 53.

> RIVER RESEARCH INSTITUTE 11A, Free School Street, Calcutta 16.

ROYAL AGRICULTURAL AND HORTICULTURAL SOCIETY OF INDIA 1, Alipore Road, Calcutta 27.

SAFETY FIRST ASSOCIATION OF INDIA (Bengal Provincial Branch) 6, Dharamtolla Street, Calcutta.

SAHA INSTITUTE OF NUCLEAR PHYSICS 92, Acharya Prafulla Chandra Road, Calcutta 9.

SALVATION ARMY 172, Lower Circular Road, Calcutta 14.

SANTI INSTITUTE
26/1/A, Sasi Bhuson Dey St., Calcutta 12.

Music—Sporting—Religious—Social Service—Cultural Sections.

SAVE THE CHILDREN COMMITTEE (INDIA)
P. 101, Lake Terrace, Calcutta 29.

SHELLAC EXPORT PROMOTION COUNCIL 14/1B, Ezra Street, Calcutta 1.

SHISHU SAHITYA PARISHAD 16, Townsend Road, Calcutta 25. SOCIETY FOR THE PROTECTION OF CHILDREN IN INDIA

2B, Camac Street, Calcutta.

SOCIETY OF ST. VINCENT DE PAUL No. 3, Dharamtolla Street, Calcutta 13.

ST. JOHN AMBULANCE BRIGADE 5, Govt. Place North, Calcutta 1.

STATIONERY & OFFICE EQUIPMENT ASSOCIATION OF INDIA P-11, Mission Row Extension, Calcutta 1.

STEEL ASSOCIATION OF INDIA India Exchange, India Exchange Place, Calcutta 1.

STEEL EXPORTERS' ASSOCIATION 18, Rabindra Sarani, Calcutta 1.

STEEL IMPORTERS' ASSOCIATION OF INDIA India Exchange, India Exchange Place, Calcutta 1.

STEEL RE-ROLLING MILLS ASSOCIATION OF INDIA

2, Brabourne Road, Calcutta-1.

TEA ASSOCIATION OF INDIA India Exchange, India Exchange Place, Calcutta 1.

President: S. K. Kanoria; Senior Vice-President: B. C. Biyani; Vice-President: Narendra Kumar; Secretary-General: C. S. Pande.

TEA CHEST FITTINGS MANUFACTURERS'
ASSOCIATION OF INDIA
9, Clive Row, Calcutta 1.

TEA PACKETERS ASSOCIATION OF INDIA P 32/33, India Exchange Place, Calcutta 1.

TEXTILE ASSOCIATION (INDIA)
WEST BENGAL BRANCH
63, Radhabazar Street, Calcutta 1.

TINPLATE FABRICATORS ASSOCIATION India Exchange, 8th Floor, India Exchange Place, Calcutta.

TUBERCULOSIS RELIEF ASSOCIATION 73, Dharamtolla Street, Calcutta 13.

UMBRELLA RIB MANUFACTURERS' ASSOCIATION India Exchange, 8th Floor, Calcutta 1.

UNITED KINGDOM CITIZENS' ASSOCIATION 51, Chowringhee Road, Calcutta 16.

UNITED TRADES UNION CONGRESS 249, Bowbazar Street, Calcutta 12.

VIVEKANANDA MISSION
1, Chitpur Bridge Approach, Calcutta 3.

VIVEKANANDA SOCIETY 21, Brindaban Bose Lane, Calcutta 6.

WEST BENGAL ADULT EDUCATION
ASSOCIATION

Students Hall, College Square, Calcutta 12.

WEST BENGAL BASKETBALL
ASSOCIATION

94, Chittaranjan Avenue. Calcutta 12.

WEST BENGAL COLD STORAGE ASSOCIATION 195, Mahatma Gandhi Road, Calcutta 7.

WEST BENGAL COUNCIL FOR CHILD WELFARE

P101, Lake Terrace, Calcutta 29.

WEST BENGAL GARMENT MANUFACTURERS & DEALERS ASSOCIATION

195, Mahatma Gandhi Road, Calcutta 7.

WEST BENGAL HOSIERY ASSOCIATION 195, Mahatma Gandhi Road, Calcutta-7.

WEST BENGAL IRON & STEEL SCRAP DEALERS' ASSOCIATION 66, Bentinck Street, Calcutta 1.

WEST BENGAL MEDICAL COUNCIL 8, Lyons Range, Calcutta.

WEST BENGAL NURSING COUNCIL Mitra Building, 8, Lyons Range, Calcutta 1.

WEST BENGAL PHARMACY COUNCIL 8, Lyons Range (3rd floor), Calcutta.

WEST BENGAL PROBATION AND AFTERCARE ASSOCIATION

5B, Maharani Swarnamoyee Road, Calcutta 12.

WEST BENGAL TEXTILE DEALERS'
ASSOCIATION

P-11, Mission Row Extn., Calcutta 1.

WEST BENGAL TOBACCO DEALERS' ASSOCIATION LIMITED 51/3, Strand Road, Calcutta 7.

WEST BENGAL VACCINE INSTITUTE AND LABORATORY

2, Convent Lane, Calcutta 15.

WINE, SPIRIT AND BEER ASSOCIATION OF INDIA

Royal Exchange, Calcutta.

WOODGOLA MERCHANTS ASSOCIATION 18, Woodgola Coal Depot, Calcutta 15.

> Y.M.C.A. COLLEGE BRANCH 86, College Street, Calcutta 12.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION 134, Surendra Nath Banerjee Road, Calcutta 13.

ZOOLOGICAL SOCIETY OF INDIA 34, Chittaranjan Avenue, Calcutta 12.

#### CHAMBERS OF COMMERCE

ASSOCIATED CHAMBERS OF COMMERCE & INDUSTRY OF INDIA

6, Netaji Subhas Road, Calcutta 1.

President: Keshub Mahindra; Deputy Presidents: A. M. Arunachalam, H. K. Srivastava; Secretary: W. M. Paris.

BENGAL CHAMBER OF COMMERCE AND INDUSTRY

Royal Exchange, P. Box No. 280, Calcutta 1. President: A. K. Sen; Secretary: W. M. Paris.

BENGAL NATIONAL CHAMBER OF COMMERCE AND INDUSTRY

P-11, Mission Row Extension, Calcutta 1.

President: A. K. Sarkar; Vice-President: Dr. B. N. Ghose; Secretary: Vacant.

BHARAT CHAMBER OF COMMERCE State Bank Building, 195, Mahatma Gandhi Road, Calcutta 7.

EASTERN CHAMBER OF COMMERCE 2, Dalhousie Sq. East, Calcutta 1.

INDIAN CHAMBER OF COMMERCE, CALCUTTA "India Exchange", India Exchange Place, Calcutta 1.

President: R. P. Goenka; Sr. Vice-President: Sanjoy Sen; Vice-President: R. B. Shah. Secretary-General: C. S. Pande.

INDO-GERMAN CHAMBER OF COMMERCE Ilaco House, 1/3, Brabourne Road, Calcutta 1.

KALIMPONG CHAMBER OF COMMERCE Kalimpong (Darjeeling).

MERCHANTS' CHAMBER OF COMMERCE 3/1/2, Armenian Street, Calcutta 1.

ORIENTAL CHAMBER OF COMMERCE 6, Clive Row, Calcutta 1.

RANIGANJ CHAMBER OF COMMERCE Raniganj (Dt. Burdwan).

# ADMINISTRATIVE PERSONNEL Calcutta

Governor

S. S. DHAVAN

#### Avisers

B. B. Ghosh, A. M. Kidwai, K. K. Sen, M. M. Basu, A. K. Ghosh.

#### Secretariat

Chief Secretary, S. Mullick, I.C.S.; Commissioner for Home Affairs, B. R. Gupta, I.A.S.; Financial Commissioner, J. L. Kundu, I.A.S.; Secretary, Refugee, Relief & Rehabilitation, B. B. Mandal, I.A.S.; Secretary, Agriculture and Community Development, M. C. Mukherjee, I.A.S.; Secretary, Commerce and Industries, A. Bose, I.A.S.; Secretary, Education Department, J. C. Sengupta; Secretary,

Department of Health, A. K. Sen, I.A.S.; Legal Remembrancer, A. K. Dey; Transport Commissioner, J. C. Talukdar, I.A.S.; Chairman, State Transport Corporation, M. M. Kushari, I.A.S.; Secretary, Relief & Social Welfare Deptt. (SW) & Co-operative Deptt., B. S. Raghavan, I.A.S.; Secretary, Animal Husbandry and Veterinary Services and Forest and Fisheries, T. Ghosh, I.A.S.; Secretary, Development & Planning (T. & C.P.) Deptt., S. Dutt Mazumdar, I.A.S.; Secretary, Irrigation & Waterways Department, A. K. Mazumdar, I.A.S.; Secretary, Land and Land Revenue and Welfare Deptt. and Scheduled Castes & Tribes Deptt., A. Niyogi, I.A.S.; Secretary, Public Works Deptt. and Housing Deptt., P. C. Banerji, I.A.S., Secretary, Labour Department, S. R. Das, I.A.S.; Vigilance Commissioner, S. Lahiri; Secretary, Food & Supplies Deptt., S. B. Ray, I.A.S.; Secretary, Development Deptt., B. C. Ganguly, I.A.S.;

Secretary, L.S.G. Deptt., H. C. Datta, I.A.S.; Secretary, Judicial Deptt., K. J. Sen Gupta.

#### Departmental Officials

Inspector General of Police, S. M. Ghosh, I.P., J.P.; Addl. Inspector General of Police, M. A. H. Masood, I.P.; Addl. Inspector General of Police, D. G. Bhattacharyya, I.P.; Commissioner of Police, Ranjit Gupta; Inspector General of Prisons, S. B. Bhattacharyya; Labour Commissioner and Registrar of Trade Unions, A. Chowdhury; Registrar of Co-operative Societies, N. Krishnamurthi; Chief Conservator of Forests, K. L. Lahiri; Director of Agriculture, Dr. A. K. Dutta; Director of Industries, U. Chatterjee; Director of Public Instruction, P. C. Mukherjee; Director of Information and Public Relations, P. S. Mathur; Director of Fisheries, M. K. Kargupta, I.A.S.; Chairman, Public Service Commission, Anderson House, Calcutta-27, S. M. Bhattacharji.

#### Eastern Railway

17, Netaji Subhas Road, Calcutta 1.

General Manager, G. P. Warrier; Sr. Dy. General Manager, A. K. Gupta; Financial Adviser and Chief Accounts Officer, D. C. Vevaina; Chief Operating Superintendent, B. L. C. Sastri; Chief Commercial Superintendent, V. V. Bhide; Chief Engineer, Kali Charan; Chief Engineer (Cons.), K. Ramani; Chief Signal and Tel. Com. Engineer, D. N. Basak; Chief Personnel Officer, S. B. Zaheer; Controller of Stores, R. K. Tandon; Chief Security Officer, S. C. Chaudhuri; Chief Mechanical Engineer, A. L. Kochhar; Chief Electrical Engineer, S. K. Kanjilal; Chief Medical Officer, Dr. J. R. Gadeock; Chief Public Relations Officer, M. N. Radha-Krishnan; Commercial Publicity Officer, B. D. Gupta.

#### South-Eastern Railway

11, Garden Reach Road, Calcutta 43.

General Manager, S. S. Mukherjee, Senior Deputy General Manager, A. K. Sarkar; Chief Engineer, P. R. Chopra; Chief Engineer, Projects and Development, G. B. Singh; Chief Mechanical Engineer, K. L. Bery; Chief Electrical Engineer, T. S. Viswanathan; Chief Engineer (Con.), S. Ramamurthi; Chief Sigl. and Telecom. Engineer (Con.), S. Romanurthi; Chief Sigl. and Telecom. Engineer (Con.), I. B. Bose; Chief Personnel Officer, A. K. Chakravarti; Controller of Stores, A. K. Rao; Financial Adviser and Chief Accounts Officer, B. Bhattacharyya; Financial Adviser and Chief Accounts Officer (Con.), R. R. Sud; Chief Operating Supdt., C. D. Chatterje; Chief Commercial Supdt., E. J. Simoes; Chief Medical Officer, Dr. S. L. Malhotra; Chief Security Officer, B. K. Roy; Chief Public Relations Officer, S. K. Khanna.

#### Railway Service Commission

Clem Browne Railway Institute, Sealdah, Calcutta 14.

Chairman, P. C. Vaish; Member-Secretary, S. Waha-buddin Ahmed.

#### High Court

Calcutta

Actg. Chief Justice, Prasanta Bihari Mukharji, Bar-at-Law; Puisne Judges, Paresh Nath Mookerjee, S. P. Mitra, Amaresh Chandra Ray, Chandra Narayan Laik, Arun Kumar Mukherjea, R. N. Dutt, B. C. Mitra, D. Basu, A. C. Gupta, Syed Sadat Abdul Masud, A. K. Das, A. N. Sen, Sisir Kumar Mukherjea, S. N. Bachi, A. N. Chakrabarti, S. C. Ghosh, R. M. Datta, N. C. Talukdar, K. L. Roy, S. C. Deb, A. K. Sinha, K. K. Mitra, S. K. Chakravarti, S. Mukharji, T. K. Basu, S. K. Datta, P. K. Banerjee, B. Banerjee, J. Sarmasarkar, A. K. Basu; Additional Judges, A. K. Sen, A. P. Das, Chillatosh Mookerjee, Amiya Kumar Mookerji, M. M. Dutt; Advocate General, S. K. Acharya; Sheriff, J. C. De; Registrar (Appellate Side), D. P. Chaatarji; Registrar (Original Side), Samiran Sen.

# GOVERNMENT OF INDIA PERSONNEL

#### PRESIDENT V. V. Giri.

#### PRESIDENT'S SECRETARIAT

Rashtrapati Bhavan, New Delhi 4.

Secretary, Dr. Nagendra Singh; Press Secretary, A. M. Abdul Hamid; Mily. Secretary & Chief Commandant, President's Bodyguard, Maj.-Gen. Amreek Singh.

### VICE-PRESIDENT

G. S. Pathak.

#### VICE-PRESIDENT'S SECRETARIAT

Secretary to the Vice-President, V. Phadke; Private Secretary, A. D. Joshi.

#### MEMBERS OF THE CABINET

Prime Minister, Minister of Atomic Energy, Minister of Home Affairs and Minister of Planning, Mrs. Indira Gandhi.

Minister of Food and Agriculture, Fakhruddin Ali Ahmed.

Minister of Steel and Heavy Engineering, B. R. Bhagat. Minister of Finance, Y. B. Chavan.

Minister of Law and Social Welfare, K. Hanumanthaiya. Minister of Railways, G. L. Nanda. Minister of Defence, Jagjivan Ram.

Minister of Parliamentary Affairs and Shipping & Transport, K. Raghuramaiah.

Minister of Education & Youth Services, Prof. V. K. R. V. Rao.

Minister of Labour & Rehabilitation, D. Sanjivayya.

Minister of Petroleum & Chemicals and Mines & Metals, Dr. Triguna Sen.

Minister of Health and Family Planning & Works, Housing & Urban Development, K. K. Shah.

Minister of Industrial Development & Internal Trade, Dinesh Singh.

Minister of Tourism & Civil Aviation, Dr. Karan Singh. Minister of External Affairs, Sardar Swaran Singh.

Minister of Information & Broadcasting and Communications, Satyanarayan Sinha.

#### MINISTERS OF STATE

Bhagwat Jha Azad (Labour, Employment & Rehabilitation); Bhakt Darshan (Education & Youth Services); D. R. Chavan (Petroleum & Chemicals and Mines & Metals); Parimal Ghosh (Health & Family Planning and Works, Housing & Urban Development); I. K. Gujral (Information & Broadcasting and Deptt. of Communications); Jagannath Rao (Law & Deptt. of Social Welfare); R. K. Khadilkar

(Minister of Supply); L. N. Mishra (Minister of Foreign Trade); B. S. Murthy (Health & Family Planning and Works, Housing & Urban Development); K. C. Pant (Home Affairs, also Minister of State, Deptts. of Electronics and Scientific & Ind. Research in the Cabinet Secretariat); Dr. K. L. Rao (Irrigation & Power); K. V. Raghunatha Reddy (Minister of Company Affairs); P. C. Sethi (Defence Production in the Min. of Defence); A. P. Shinde (Food, Agriculture, Comm. Development & Co-operation); V. C. Shukla (Finance); Prof. Sher Singh (Information & Broadcasting and Department of Communications); Mrs. Naudini Satpathy (Attached to the Prime Minister); Ram Niwas Mirdha (Home Affairs); Chaudhary Nitiraj Singh (Petroleum & Chemicals and Mines and Metals); N. S. Mahida (Defence); Om Mehta (Parliamentary Affairs).

#### **DEPUTY MINISTERS**

Rohanlal Chaturvedi (Railways); Jagannath Pahadia (Food, Agriculture, Comm. Development and Co-operation); S. C. Jamir (Food, Agriculture, Comm. Development and Co-operation); M. R. Krishna (Industrial Development & Internal Trade); Dr. (Mrs.) Sarojini Mahishi (Tourism & Civil Aviation); Mohammed Shafi Qureshi (Steel & Heavy Engineering); K. S. Ramaswamy (Home Affairs); Chowdhary Ram Sewak (Foreign Trade); Mohammad Yunus Saleem (Railways); Siddeshwar Prasad (Irrigation & Power); Bhanu Prakash Singh (Petroleum & Chemicals and Mines & Metals); Sardar Iqbal Singh (Shipping & Transport and Deptt. of Parliamentary Affairs); Surendra Pal Singh (External Affairs); K. R. Ganesh (Finance); A. K. Kisku (Education & Youth Services); Bishwanath Roy (Labour, Employment and Rehabilitation); P. Parthasarathy (Parliamentary Affairs); R. S. Panjhazari (Parliamentary Affairs).

#### PRIME MINISTER'S SECRETARIAT, NEW DELHI 11.

Secretary to the Prime Minister, P. N. Haksar; Joint Secretaries, G. Ramachandran, B. N. Tandon; Directors, K. Natwar Singh, H. Y. Sharada Prasad; Private Secretaries, S. P. Khanna (Admn.), N. K. Seshan (Personal), R. K. Goel (Public), V. P. Marwaha (Special); Social Secretary, Miss Usha Bhagat.

#### CABINET SECRETARIAT

Rashtrapati Bhavan, New Delhi 4.

Minister of State, K. C. Pant; Secretary to the Cabinet, B. Sivaraman, I.C.S.; Hon. Statistical Adviser to the Cabinet, Prof. P. C. Mahalanobis; Secretaries, Prem Krishen, V. L. Gidwani, I.C.S. (Also Employment Commissioner); Special Commissioner, G. R. Rajagopal; Additional Secretary and Chairman, Joint Intelligence Committee, R. N. Chopra; Additional Secretary, R. N. Rao; Director General of Security, Balbir Singh; Joint Secretaries, J. S. Mongia, K. V. Seshadri.

#### DEPARTMENT OF STATISTICS

Sardar Patel Bhavan, Parliament Street, New Delhi. Secretary, V. L. Gidwani, i.c.s.

#### CENTRAL STATISTICAL ORGANIZATION

Director, Dr. Uttam Chand; Director, Computer Centre, V. R. Rao.

DIRECTORATE OF NATIONAL SAMPLE SURVEY Chief Director, Dr. N. T. Mathew.

CENTRAL STATISTICAL ORGANISATION (INDUSTRIAL STATISTICS WING) 1, Council House Street, Calcutta 1.

Joint Director, G. D. Mathur.

#### RAIYA SABHA SECRETARIAT

Chairman, G. S. Pathak; Dy. Chairman, B. I. Khobaragade; Secretary, B. N. Banerjee.

#### LOK SABHA SECRETARIAT

Speaker, Dr. G. S. Dhillon; Deputy Speaker, G. G. Swell; Secretary, S. L. Shakdher.

#### DEPARTMENT OF ATOMIC ENERGY

Chhatrapati Shivaji Maharaj Marg, Bombay 1.

Minister, Mrs. Indira Gandhi.

Chairman, Atomic Energy Commission, and Secretary to the Government of India, Dr. Vikram A. Sarabhai.

Member for Finance, Dr. I. G. Patel; Members, J. R. D. Tata, P. N. Haksar, H. N. Sethna; Addl. Secretary to Govt., R. Bhaktavatsalu; Joint Secretaries to Govt., M. A. Hadi, M. A. Vellodi; Secretary to the AEC, T. N. Seshan.

Chairman, Rajasthan & Madras Atomic Power Project and Director, Power Projects Engg. Dn. and Bhabha Atomic Research Centre, Trombay, Bombay, H. N. Sethna; Officer on Special Duty and Joint Secretary, Madras Atomic Power Project, N. S. Siva; Head, Pub. Division, P. K. Nagarajan; Editor, "Nuclear India", Jagannath Sharma.

#### DEPARTMENT OF COMMUNICATIONS

Minister, Satya Narayan Sinha; Ministers of State, Prof. Sher Singh, I. K. Gujral; Secretary, N. C. Shrivastava, I.C.S.

#### Posts & Telegraphs Board

Chairman (Ex-Officio), N. C. Shrivastava, I.C.S. (D.G.P. & T.); Senior Members, L. K. Narayanswamy (Posts); C. A. Cornelius (Telecom. Operations); S. D. Nargolwala (Finance); Members, Shanti Swarup (Admn.); Madan Kishore (Banking & Insurance); N. K. Sengupta (Telecom. Development); Secretary, G. P. Mital; Public Relations Officer, H. N. Verma.

#### Heads of Circles

Postmaster-General, V. P. Kanetkar (Andhra Circle), C. S. S. Rao (Assam Circle), K. L. Bhola (Bihar Circle), S. R. Bhashyam (Gujarat Circle), S. N. Ranganathan (Kerala Circle), M. B. Sarangapani (Mysore Circle), B. Lal (Maharashtra Circle), S. B. Velankar (M.P. Circle), A. N. Biswas (Orissa Circle), G. S. Bhatia (Punjab Circle), Daljinder Singh (Rajasthan Circle), C. A. Dhayananthan (Tamil Nadu Circle), M. Janakiraman (U.P. Circle), M. R. Krishnan (West Bengal Circle). Director of Postal Services, New Delhi I, I. J. Burman. Director, P. & T., J. & K. Circle, V. R. Venugopal.

#### Heads of Administrative Offices

General Manager, Bombay Telephones, K. D. Vaidya; General Manager, Calcutta Telephones, Vacant; General Manager, Delhi Telephones, I. K. Gupta; General Manager, Madras Telephones, C. J. Clement; Gen. Manager, Projects, P. & T., Calcutta 27, T. N. Srivastava.

### Overseas Communications Service

Hqrs. Office:

Industrial Assurance Bldg., Bombay 20.

Director-General, K. M. Balchandani; Chief Engineer, B. S. Dutt; Director (SC), R. Parthasarathy; Dy. Director-General (Traffic), (Radio House, Chhatrapati Shivaji Maharaj Marg, Bombay 1), G. D. Gokarn; Directors: A. E. Husein (C.T.I., Bombay 1), S. Sreenivasachar (Beam Wireless Station, Dighi, Poona 15), P. G. Damle (N. I. C. Bldg., Parliament St., New Delhi), G. Seshadri (Poddar

Court, 18, Rabindra Sarani, Calcutta 1), Engineers-in-Charge, V. N. Basha (Batliboi House, 98-A, Armenian St., Madras); E. S. Sewjee (Beam Wireless Stn., Dhond); M. V. Krishnaswamy (Satellite Earth Stn., Arvi-Dt. Poona).

# DEPARTMENT OF COMPANY AFFAIRS Shastri Bhavan (5th Floor), Dr. Rajendra Prasad Road, New Delhi 1

Minister, K. V. Raghunatha Roddy; Secretary, Department of Company Affairs & Chairman, Company Law Board, R. Prasad, I.C.S.; Joint Secretary, Department of Company Affairs & Member, Company Law Board, G. A. Shah; Director of Investigation & Inspection, S. Venkataraman; Director, Research & Statistics, Baldev Datta.

#### NORTHERN REGION

Regional Director, Kanpur, S. M. Dugar; Registrar of Companies, Kanpur, P. R. Mukhopadhyay; Registrar of Companies, Delhi, F. N. Sanyal; Registrar of Companies, Julundur, B. K. Chatterjee; Registrar of Companies, Jaipur, P. S. Mathur; Registrar of Companies, Srinagar, Harkaran Singh.

#### WESTERN REGION

Regional Director, Bombay, M. V. Warerkar; Registrar of Companies, Bombay, S. C. Bafna; Registrar of Companies, Gwalior, R. K. Gupta; Registrar of Companies, Ahmedabad, J. G. Gatha; Registrar of Companies, Goa, R. V. Medhi.

#### EASTERN REGION

Regional Director, Calcutta, P. B. Menon; Registrar of Companies, Calcutta, P. K. Mallick; Registrar of Companies, Shillong, S. P. Tayal; Registrar of Companies, Cuttack, K. G. Ananthakrishnan; Registrar of Companies, Patna, S. S. Seth; Registrar of Companies, Port Blair, R. K. Ahuja.

#### SOUTHERN REGION

Regional Director, Madras, T. J. Gondhalekar; Registrar of Companies, Madras, S. M. Yousuf; Registrar of Companies, Hyderabad, S. Narayanan; Registrar of Companies, Ernakulam, A. G. Sirsi; Registrar of Companies, Bangalore, S. P. Khanna; Registrar of Companies, Pondicherry, N. Krishnamurthi.

### DEPARTMENT OF PARLIAMENTARY AFFAIRS

90, Parliament House, New Delhi 2.

Minister, K. Raghuramaiah; Minister of State, Om Mehta; Dy. Ministers, Sardar Iqbal Singh, P. Parthasarathy, R. S. Panjhazari; Secretary, H. N. Trivedi.

#### DEPARTMENT OF SOCIAL WELFARE

Minister, K. Hanumanthaiya; Minister of State, Jagannath Rao; Dy. Minister, Mohammed Yunus Saleem.

Addl. Secretary, P. P. J. Vaidyanathan; Director General, Backward Classes Welfare and ex-officio Joint Secretary, K. G. S. Pisharody.

# Office of the Commissioner for Scheduled Castes and Scheduled Tribes.

West Block No. 1, Wing No. 7, 1st Floor, Ramakrishnapuram, New Delhi 22.

Commissioner for Scheduled Castes and Scheduled Tribes, Prof. N. K. Bose.

Deputy Commissioners for Scheduled Castes and Scheduled Tribes, Vimal Chandra; O. K. Moorthy.

Central Social Welfare Board, Jeevan Deep Building, Parliament Street, New Delhi

Chairman, Mrs. Neera Dogra; Secretary, S. Ghosh.

### Employees' State Insurance Corporation, ESIC Bldg., Kotla Road, New Delhi.

Director General, T. C. Puri, I.C.S.; Insurance Commissioner, V. R. Natesan; Medical Commissioner, Dr. M. J. Bhat; Director of Administration, V. A. Mutatkar; Director (O & M), D. D. Sethi; Administrative Officer, R. S. Shukla.

Regional Offices: ESIC Building, 5/1 Grant Lane, Calcutta-12; "Marble Hall" 25, Sterling Road, Nungambakkam, Madras-32; ESIC Building, Colaba, Bombay, 5-BR; Ashram Road, Ahmedabad-9; ESIC Building, Kotla Road, New Delhi-1; ESIC Bhawan, Sarvodaya Nagar, Kanpur-5; Bramha Vihar, 5, New Palasia, Indore 1; 5-9-23, Hill Fort Road, Hyderabad-4; Hathibabu Ka Bagh, Station Road, Jaipur; ESIC Building, Block No. 3, Sector 19-A, Madhya Marg, Chandigarh-19; ESIC Building, North Swaraj Round, Trichur; ESIC Building, 13, Kumara Park, East Estension, Bangalore-1; Lakhmir Bhawan, Budh Marg, Patna; Grantha Prakashni, 201, Sutahat, Cuttack-1; Uzanbazar, Hill Side, P.O. Gauhati-3 (Assam).

#### DEPARTMENT OF SUPPLY

Minister, R. K. Khadilkar.

Directorate General of Supplies and Disposals
(Headquarters Office)

N.I. Bldg., Parliament Street, New Delhi

Director-General of Supplies & Disposals, P. C. Bhagat.

ADMINISTRATION BRANCH

Dy. Director-General (Administration), V. Doraiswamy.

#### SUPPLIES WING

Dy. Directors-General, H. V. Karve (K), N. K. Thadani (I), K. J. Shenoy (S).

DIRECTORATE OF SUPPLIES AND DISPOSALS 6, Esplanade East, Calcutta.

Dy. Director-General, J. Maneksha.

DIRECTORATE OF SUPPLIES AND DISPOSALS Sapt Building, Graham Road, Ballard Estate, Bombay.

Director of Supplies & Disposals, B. C. Sharma.

DIRECTORATE OF SUPPLIES (TEXTILES)
5th Floor, New Central Govt. Office Bldg.,
New Marine Lines, Bombay.

Director of Supplies (Textiles), F. W. Stevens.

DIRECTORATE OF SUPPLIES AND DISPOSALS, 35, Haddows Road, Madras 6.

Director of Supplies and Disposals, S. C. Agarwal.

DIRECTORATE OF SUPPLIES & DISPOSALS, Kanpur.

Director, P. Chakravarti.

INSPECTION WING
(HEADQUARTERS OFFICE)

L.I.C. Bldg., Parliament Street, New Delhi.

Dy. Director-General (Inspection), G. K. Ahuja.

Inspection Circles: 1, Ganesh Chandra Avenue, Calcutta 13; Aayaker Bhavan Annexe, New Marine Lines,

Bombay 20; 35, Haddows Road, Madras 6; Jamshedpur 7; Burnpur; 4/286 Nawabganj, Kanpur; Block No. 13, Jamnagar House, New Delhi; Tokyo, Japan (C/o Indian Embassy, Tokyo).

#### Printing and Stationery Department, 'B' Wing, Nirman Bhawan, New Delhi

Chief Controller of Printing and Stationery, P. K. Sen; Controller of Administration, P. G. Garg; Controllers of Printing, A. C. Das Gupta, C. E. James (Norms).

#### MINISTRY OF DEFENCE

Minister, Jagjivan Ram; Ministers of State, P. C. Sethi (Defence Production), N. S. Mahida; Secretary, H. C. Sarin; Secretary (Defence Production), Govind Narain; Secretary (Defence Supplies); G. L. Sheth; Additional Secretary, S. K. Mukherjee; Joint Secretaries, M. M. Sen, H. T. Sadhwani, N. D. Buch, J. P. Kacker, S. M. Agarwal, L. S. Lulla, S. Krishnaswami, M. P. Cariappa, D. K. Bhattacharya, V. Subramanyam, and H. B. Lall; Scientific Adviser, Dr. B. Nag Chaudhuri.

# DEFENCE FORCES Indian Army

Chief of the Army Staff, Gen. S. H. F. J. Manekshaw, M.O.; Vice Chief of the Army Staff, Lt.-Gen. K. S. Katoch, M.O.; Dy. Chief of the Army Staff, Lt.-Gen. R. S. Noronha; General Officer Commanding-in-Chief, Eastern Command, Lt.-Gen. J. S. Aurora; General Officer Commanding-in-Chief, Southern Command, Lt.-Gen. G. G. Bewoor; General Officer Commanding-in-Chief, Western Command, Lt.-Gen. K. P. Candeth; General Officer Commanding-Chief, Central Command, Lt.-Gen. P. S. Bhagat; Adjutant-General, Lt.-Gen. Har Prasad; Quartermaster-General, Lt.-Gen. J. K. Khanna; Master-General of the Ordnance, Lt.-Gen. K. N. Dubey; Military Secretary, Maj. Gen. B. N. Sarkar; Engineer-in-Chief, Lt.-Gen. R. A. Loomba; Signal Officer-in-Chief, Lt.-Gen. I. D. Verma; Director of Supplies and Transport, Lt.-Gen. D. S. Kalha; Director of Clectrical and Mechanical Engineers, Lt.-Gen. C. Sundara Rao.

#### Indian Navy

Chief of the Naval Staff, Admiral S. M. Nanda, Vice-Chief of the Naval Staff, Vice Admiral (Ag.) J. Cursetji; Flag Officer Commanding-in-Chief, Western Naval Command, Vice Admiral N. Krishnan; Flag Officer, Commanding-in-Chief, Eastern Naval Command, Rear Admiral K. R. Nair; Flag Officer Commanding Western Fleet, Rear Admiral V. A. Kamath; Commodore Commanding Southern Naval Area, Commodore Inder Singh; Chief of Material, Rear Admiral K. L. Kulkarni; Chief of Personnel, Vacant; Asst. Chief of the Naval Staff, Commodore D. R. Mehta.

#### Indian Air Force

Chief of Air Staff, Air Chief Marshal P. C. Lal; Vice Chief of the Air Staff, Air Marshal Shiv Dev Singh; Deputy Chief of the Air Staff, Air Marshal O. P. Mehra; Air Officer-in-Charge Maintenance, Air Marshal Y. V. Malse; Air Officer-in-Charge Administration, Air Vice Marshal T. S. Virk; Air Officer Commanding-in-Chief, Western Air Command, Air Marshal M. M. Engineer; Air Officer Commanding-in-Chief, Central Air Command, Air Vice Marshal H. Moolgavkar, Air Officer Commanding-in-Chief, Eastern Air Command, Air Marshal H. N. Chatterjee; Air Officer Commanding-in-Chief, Maintenance Command, Air Vice Marshal H. C. Dewan; Air Officer Commanding-in-Chief, Training Command, Air Vice Marshal S. Srihari.

#### Directorate-General, Ordnance Factories 6, Esplanade East, Calcutta 1.

Director General, R. M. Muzumdar; Addl. Directors-General, S. S. Jauhari, M. M. Thomas, L. B. Thairani.

### Directorate General of National Cadet Corps West Block No. 4, Ramakrishnapuram, New Delhi 22

Director-General, Maj.-Gon. M. G. Hazari.

#### Office of the D.G., A.F.M.S., D.H.Q. P.O., New Delhi 11

Director-General, Armed Forces Medical Services, Lt.-Gen. S. N. Chatterjee; Deputy Director General, Maj.-Gen. K. K. Menon.

#### Directorate of Public Relations (Ministry of Defence)

 $D.P.R.,~{\rm B.~P.}$  Mathur;  $D.D.P.R.,~{\rm Colonel~V.}$  Longer,  $A.D.P.R.,~{\rm Commander~U.}$  Narsingh.

#### Hindustan Aeronautics Ltd., Bangalore Division, Bangalore 17.

Managing Director, Air Vice Marshal A. S. Rikhy; Financial Controller, N. Rajan; Deputy General Managers: H. K. Karve (Engines), Gp. Capt. S. C. Keshu (Aircraft), Gp. Capt. H. D. Mehra (Commercial), Gp. Capt. C. G. Kharas (Overhaul); Chief Designer, S. C. Das; Chief Administrative Manager, A. B. Datar.

#### Institute of Armament Technology, Girinagar POONA 25.

#### MINISTRY OF EDUCATION & YOUTH SERVICES

Minister, Prof. V. K. R. V. Rao; Minister of State, Bhakt Darshan; Deputy Minister, A. K. Kisku; Secretary, S. Chakravarti; Secretary to Govt. and D.G., C.S.I.R., Dr. Atma Ram; Educational Adviser (T) & Ex-Officio, Additional Secretary, G. K. Chandiramani; Joint Secretaries, T. R. Jayaraman, Kanti Chaudhuri; Jt. Educational Advisers, L. S. Chandrakant, Dr. P. D. Shukla and A. B. Chandiramani; Director, Planning and Coordination, Rd. S. N. Saraf; Adviser on Libraries, B. S. Kesavan; Adviser, J. P. Naik.

#### Central Board of Secondary Education 17-B, Indraprastha Marg, New Delhi 1

Chairman, Dr. P. D. Shukla; Secretary, Dr. R. P. Singhal; Dy. Secretary, B. Mahajan; Education Officer: L. N. Aggarwal.

### National Archives of India, Janpath, New Delhi National Library, Belvedere, Calcutta 27

Dept. of Adult Education
National Institute of Education,
National Council of Educational Research & Training
37, Friends Colony, Mathura Road, New Delhi 14.

#### National Fitness Corps Directorate

West Block No. 8, Wing No. 7, First Floor, Rama Krishna Puram, New Delhi-22.

Director-General, P. Dayal, Col. (Retd.); Director, Dr. K. V. Varki.

# University Grants Commission University Grants Commission Building, Bahadur Shah Zaffar Marg, New Delhi-1.

Chairman, Prof. D. S. Kothari; Secretary, Dr. P. J. Philip; Jt. Secretaries, R. K. Chhabra, Dr. D. Shankar Narayan.

# Botanical Survey of India, 14, Madan Street, Calcutta 13.

Director, Dr. S. K. Mukherjee; Jt. Director, Dr. K. Subramanyam.

Regional Offices:—Western Circle, Poona; Northern Circle, Dehra Dun; Central Circle, Allahabad; Southern Circle, Coimbatore, Eastern Circle, Shillong.

#### Anthropological Survey of India, Indian Museum, 27, Jawaharlal Nehru Marg, Calcutta 13.

Director & Anthropological Adviser to the Govt. of India, Dr. D. K. Sen.

# Archaeological Survey of India, New Delhi 11.

Director-General of Archaeology, B. B. Lal; Jt. Dir.-Gen. of Archaeology, M. N. Deshpande; Director, School of Archaeology, K. Deva; Director, Exploration, B. K. Thapar; Director, Monuments, Mrs. D. Mitra; Director, Administration, Mahmood Ali.

# Indian Institute of Technology, Kharagpur.

Chairman, Sir Biren Mukherjee; Director, Prof. S. K. Bose.

#### Council of Scientific & Industrial Research Rafi Marg, New Delhi.

Vice-President, Dr. V. K. R. V. Rao; Director-General, Dr. Atma Ram; Secretary, K. G. Krishnamurthi.

CENTRAL INDIAN MEDICINAL PLANTS ORGANISATION, N.B.G. COMPOUND, LUCKNOW.

Director-in-Charge, Dr. K. Ganapathi.

#### CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION

Sector 30, Chandigarh 20.

Director, Dr. P. S. Gill.

# CENTRAL BUILDING RESEARCH INSTITUTE, ROORKEE

Director, Dinesh Mohan; Administrative Officer, Rajendra Narain.

CENTRAL DRUG RESEARCH INSTITUTE Chattar Manzil Palace, Lucknow.

Director, Dr. M. L. Dhar.

# CENTRAL ELECTROCHEMICAL RESEARCH INSTITUTE

Cecrinagar, P.O. Karaikudi, 3.

Director, Dr. H. V. K. Udupa.

#### CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE Pilani.

Director, Dr. Amarjit Singh; Administrative Officer, A. N. Zutshi.

# CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE

Cheluvamba Mansion, Mysore 2.

The main function of the CFTRI is to promote optimal utilization of all the food resources so as to attain quantitative and qualitative self-sufficiency in food, achieve better nutritional standards and contribute to the economic growth of the country through the use of modern food technology.

The FAO International Food Technology Training Centre located at the Institute trains students from India and the Far East for the M.Sc. Degree in Food Technology of the Mysore University.

Director, Dr. H. A. B. Parpia.

CENTRAL FUEL RESEARCH INSTITUTE P.O., F.R.I., Dhanbad, Bihar.

Director, Dr. A. Lahiri.

# CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE

P.O. Jadavpur University, Calcutta 32.

Director, K. D. Sharma.

CENTRAL LEATHER RESEARCH INSTITUTE Adyar, Madras 20.

Director, Dr. Y. Nayudamma; Adm. Officer, J. Guruswami.

#### CENTRAL PUBLIC HEALTH ENGINEERING RESEARCH INSTITUTE Nehru Marg, Nagpur 3.

Director, Prof. S. J. Arceivala.

CENTRAL ROAD RESEARCH INSTITUTE Delhi-Mathura Road, New Delhi 20.

Director, Bh. Subbaraju.

# CENTRAL SALT & MARINE CHEMICALS RESEARCH INSTITUTE Bhavnagar 2.

Director, Dr. D. S. Datar.

#### NATIONAL AERONAUTICAL LABORATORY Kodihalli, Bangalore 17.

Scientific investigation of the problems of flight with a view to their practical application to the design, construction and safe operation of aircraft in India. High speed wind tunnels and other facilities for research and development in aerodynamics, structures and materials have been set up—facilities for research in propulsion are being set up.

Director, Dr. S. R. Valluri.

NATIONAL ATLAS ORGANISATION 4, Kiran Sankar Roy Road, Calcutta 20.

Director, Prof. S. P. Chatterjee.

NATIONAL MUSEUM Janpath, New Delhi 1.

#### NATIONAL BOTANIC GARDENS Lucknow

NATIONAL CHEMICAL LABORATORY Poona 8.

Director, Dr. B. D. Tilak; Dy. Director, Dr. J. Gupta.

#### NATIONAL GEOPHYSICAL RESEARCH INSTITUTE Hyderabad 7.

Director, Dr. Hari Narain; Dy. Director, Dr. A. Roy.

NATIONAL METALLURGICAL LABORATORY Jamshedpur 7.

Scientist-in-Charge, P. I. A. Narayanan.

NATIONAL PHYSICAL LABORATORY Hillside Road, New Delhi 12.

Director, Dr. A. R. Verma.

# INDIAN INSTITUTE OF EXPERIMENTAL MEDICINE

4, Raja S. C. Mullick Road, Calcutta 32.

Director, Prof. R. N. Chakravarti.

NATIONAL INSTITUTE OF OCEANOGRAPHY Miramar, Panaji (Goa).

Director, N. K. Panikkar.

#### Indian School of Mines, Dhanbad. Central Mining Research Station Barwa Road, Dhanbad.

#### Survey of India, Headquarters, Dehra Dun, U.P.

Surveyor General, Brigadier J. A. F. Dalal; Deputy Surveyors General, Colonel S. Choudhuri, J. C. Sikka; Indian Photo-interpretation Institute, Dehra Dun: Dean, Colonel C. M. Sahni; Map Publication Directorate, Hathibarkala, Dehra Dun: Director, Col. D. N. Sharma, Atri Harnal; Northern Directorate, Dehra Dun: Director, Colonel Y. L. Khular; Eastern Circle 13, Wood Street, Calcutta: Director, Colonel M. L. Chopra; Southern Circle 22, Richmond Road, Bangalore: Director, Colonel B. Sarin; Centre for Survey Training & Map Production, Hyderabad, Senior Director, Colonel N. K. Sen; Western Circle, Abu: Director, Colonel Y. Ramachandran; Central Circle, Jabalpur: Director, Colonel K. L. Khosla; Decean Circle, Hyderabad: Director, Colonel P. Rout; Survey (Air), New Delhi: Director, Colonel N. B. Nayar; North Western Circle, Chandigarh: Director, Colonel M. M. Datta; Goodetic and Research Branch, Dehra Dun: Director, J. K. Chatterjee.

#### Zoological Survey of India, Jabukusam House, 34, Chittaranjan Avenue, Calcutta 12.

Director, Dr. A. P. Kapur; Deputy Directors, Dr. B. S. Chuhan, S. Khera; Administrative Officer, R. K. Ghosh.

# MINISTRY OF EXTERNAL AFFAIRS

New Delhi 11.

Minister, Sardar Swaran Singh; Deputy Minister, Surendra Pal Singh; Foreign Secretary, T. N. Kaul; Secretary, Kewal Singh; Additional Secretaries, S. Krishnamurthi, Dr. Krishna Rac, P. N. Menon; Joint Secretaries, R. D. Sathe, Narendra Singh, Miss C. B. Muthamma, Eric Gonsalves, Prithi Singh (Chief of Protocol), D. Abraham, M. Lucose, A. K. Ray; Directors, Manjit Singh, Har Mandar Singh, F. S. Dewars, K. D. Sharma, S. P. Chagota, D. L. Sinai, S. K. Singh, B. K. Basu, B. N. Bose.

# CENTRAL PASSPORT & EMIGRATION ORGANISATION

Director (PV) & C.P.O., P. S. Kotda Sangani; R.P.Os., C. Bhalla (New Delhi); B. M. Lal (Madras); A. G. Kazi (Bombay); B. S. Pradhan (Calcutta); B. S. Mathur (Lucknow).

#### MINISTRY OF FINANCE

Minister, Y. B. Chavan; Minister of State, V. C. Shukla; Dy. Minister, K. R. Ganesh.

#### Department of Economic Affairs

Secretary, Dr. I. G. Patel; Additional Secretary, M. G. Kaul; Chief Economic Adviser, Dr. Ashok Mitra; Joint Secretaries, C. S. Swaminathan, A. R. Shirali, A. T. Banbawale, Y. T. Shah, N. R. Reddy, P. D. Kasbekar.

#### Department of Expenditure

Secretary, P. Govindan Nair; Secretary (Exp.), M. R. Yardi; O.S.D., H. N. Roy; Addl. Secretaries, S. D. Nargolwala, B. B. Lall; Jt. Secretaries, A. P. V. Krishnan, G. K. Bhanot, S. K. Majumdar, S. Vasudevan, P. N. Jain, B. N. Maheswari, S. R. Mehta, Y. Krishna, P. K. Kaul.

#### Department of Revenue & Insurance

Officer on Special Duty, Shiv Naubh Singh; Gold Control Administrator & Joint Secretary, Jasjit Singh; O.S.D. & Ex-Officio Joint Secretaries, A. Rajagopalan, M. S. Nadkarni; Joint Secretary, A. V. Venkateswaran.

### CENTRAL BOARD OF EXCISE AND CUSTOMS

Chairman, Central Board of Excise and Customs and Ex-Officio Additional Secretary, D. P. Anand; Members, M. G. Abrol, X. P. Kampani, K. Narasimhan.

#### CENTRAL BOARD OF DIRECT TAXES

Chairman, Central Board of Direct Taxes and Ex-Officio Addl. Secretary, R. N. Mutto; Members, R. D. Shah, K. E. Johnson, M. B. Palekar, and M. A. Shah.

#### Office of the Controller of Insurance, Kennedy Cottage, Simla 4

Controller of Insurance, C. S. Anantapadmanabhan.

#### Comptroller and Auditor-General of India, Bahadur Shah Zaffar Marg, New Delhi-1.

Comptroller and Auditor General of India, S. Ranganathan; Deputy Comptroller & Auditor General, A. K. Mukherji; Addl. Dy. Comptroller & Auditor General (Rlys.) and Ex-Officio Director of Railway Audit, R. K. Khanna; Addl. Dy. Comptroller & Auditor General (Rep.), H. B. Bhar; Addl. Dy. Comptroller & Auditor General (Head Qrs.), R. P. Ranga; Chairman, Audit Board & Ex-Officio Addl. Dy. Comptroller & Auditor-General (Comm.), H. K. Maitra.

#### India Government Mint, Mint Road, Bombay 1.

Mint Master, V. J. Joshi; Asstt. Mint Master, G. R. Kahate; Works Manager, Capt. C. V. Rao; Labour Officer, M. S. Vaswani; Dy. Works Manager (Melting), F. R. Tanksalwalla.

#### India Government Mint, Calcutta 53

Master of the Mint, P. K. Tikku; Dy. Master, B. M. Mistry; Works Manager, S. Rajagopalan.

#### India Government Mint, Hyderabad, A. P.

Mint Master, D. C. Mukherjea; Bullion Registrar, Qudratulla Beg; Dy. Works Manager, H. W. Harding.

### India Security Press, Nasik Road

Gen. Manager, India Security Press and Controller of Stamps, M. S. Pathak; Deputy Masters, N. P. Sarnaik, K. S. Augamachary, M. V. Char; Adm. Officer, A. R. Krishnaswamy, Dy. Controller of Stamps, T. K. Gupte.

#### National Savings Commissioner for India Post Box No. 96, Nagpur

National Savings Commissioner for India, Vacant; Joint National Savings Commissioner, R. G. Khedekar. Director (Hq.), D. B. Prasad; Regional Directors, K. Ganesan (Andhra Pradesh, Hyderabad), A. Chaudhury, (Assam, Shillong), Vacant, (Bihar, Patna), L. N. Mathur, (Delhi), M. A. Malek, (Gujarat, Ahmedabad), A. H. Siddiqui, (J. & K., Jammu), M. J. Prabhu, (Kerala, Trivandrum), J. H.

Kothari, (Madhya Pradesh, Indore), G. Ramachandran, (Madras), Vacant, (Maharashtra, Bombay), S. R. Narasimpur, (Mysore, Bangalore), S. S. Tewari, (Orissa, Cuttack), S. M. Mathur, (Punjab, Jullundur), Ajit Singh, (Rajasthan, Jaipur), D. R. Singh, (Uttar Pradesh, Lucknow), M. Mojumder, (West Bengal, Calcutta).

#### Narcotics Department, Morar, Gwalior 6.

Narcotics Commissioner, B. S. Chawla; Asstt. Narcotics Commissioner, H. B. Dass (Hqrs.); Uttar Pradesh Unit, Ghazipur: Deputy Narcotics Commissioner, U. N. Prasad; Madhya Pradesh Unit, Neemuch, M.P.: Asstt. Narcotics Commissioner, P. R. Kanwar; Rajasthan Unit, Kota: Asstt. Narcotics Commissioner, P. K. Kaul.

#### Reserve Bank of India

Central Office, Post Box 406, Bombay 1.

Governor, S. Jagannathan; Deputy Governors, P. N. Damry, R. K. Harari; Executive Directors, R. K. Seshadri, K. C. Mittra, V. G. Pendharkar; Chief Manager, K. N. Mehta; Chief Accountant, R. C. Sachdeva; Secretary, M. Narasimham; Legal Adviser, R. M. Halasyam; Chief Officers, Department of Banking Operations & Development, M. S. Nadkarni (Banking Operations), K. Varnasy (Inspections); Chief Officer, Agricultural Credit Department, C. D. Datey; Controller, Exchange Control Department, R. P. Chatterjee; Officer-in-Charge, Dr. P. J. J. Pinto.

INDUSTRIAL DEVELOPMENT BANK OF INDIA (Wholly owned subsidiary of the Reserve Bank of India)
Reserve Bank Building, Mint Road, Bombay 1.

Chairman, S. Jagannathan; General Manager, P. K. Dasgupta.

#### State Bank of India

Apollo Street, Bombay 1. Central Office:

Chairman, R. K. Talwar; Vice-Chairman, Vacant; Managing Director, T. R. Varadachary; Ahmedabad Circle: Secretary & Treasurer, A. B. Majumdar; Bengal Circle: Secretary & Treasurer, P. C. D. Nambiar; Bombay Circle: Secretary & Treasurer, J. N. Saxena; Delhi Circle: Secretary & Treasurer, H. C. Sarkar; Hyderabad Circle: Secretary & Treasurer, K. D. Shandilya; Kanpur Circle: Secretary & Treasurer, V. G. Mahadevan; Madras Circle: Secretary & Treasurer, R. L. Magon.

#### Life Insurance Corporation of India

Central Office: 'Yogakshema', Jeevan Bima Marg, Bombay 20.

Chairman, T. A. Pai; Managing Directors, N. V. Nayudu, V. H. Vora; Executive Director (Personnel), M. V. Sohonie; Chief of the Inspection, Organisation and Methods Department, J. Banorjea; Chief of the General Insurance Department, K. L. Gupta; Chief of Investment Deptt., P. M. Dalal; Manager, E.D.P. & Chief Actuary, J. T. Ranadive; Public Relations Officer, S. P. Nanda; Chief Engineer, Brig. Shemsher Singh; Zonal Manager, Bombay, G. H. Thakore; Zonal Manager, Delhi, K. R. Puri; Zonal Manager, Kanpur, R. B. Pradhan; Zonal Manager, Calcutta, H. L. Bhatia; Zonal Manager, Madras, R. M. Mehta.

# MINISTRY OF FOOD, AGRICULTURE, COMMUNITY DEVELOPMENT & COOPERATION

Minister, Fakhruddin Ali Ahmed; Ministers of State, Anna Sahib Shinde; Dy. Ministers, Jagannath Pahadia, S. C. Jamir.

#### DEPARTMENT OF AGRICULTURE

Secretary, B. R. Patel; Additional Secretaries, S. J. Majumdar, M. A. Quraishi, J. C. Mathur; Director General, I.C.A.R. and Ex-officio Additional Secretary, Dr. S. P. Pal; Inspector General of Forests, and Ex-officio Additional Secretary, R. C. Soni, Joint Secretaries, Godwin Rose, S. M. H. Burney, A. Prakash, M. K. Mukherji, D. B. Kulkarni, B. B. Vohra, Saran Singh; Agricultural Commissioner, Dr. A. S. Chemma; Jt. Commissioner (Plan Co-ord.) & Economics & Statistical Adviser, J. S. Sarma; Animal Husbandry, Commissioner, C. Krishna Rao.

# DEPARTMENT OF COMMUNITY DEVELOPMENT & COOPERATION

Secretary, B. R. Patel; Additional Secretary, M. A. Quraishi; Joint Secretary, Dr. N. A. Agha.

#### National Institute of Community Development Rajendranagar, Hyderabad 30.

#### DEPARTMENT OF FOOD

Secretary, K. P. Mathrani; Joint Secretaries, R. S. Talwar, H. K. Tandon, R. Balasubramanian; Dy. Director-General of Food, K. P. Jain; Chief Directors, Mangal Bihari (S. & V.), Brig. D. S. Bolani (Purchase).

#### Central Inland Fisheries Research Institute, Barrackpore (Dt. 24 Parganas)

Divisions: Pond Culture Division, Cuttack; Riverine Division, Allahabad; Estuarine Division, Barrackpore. Units: Central Inland Fisheries Research Unit, Hazaribagh; Krishna Godavari Unit, Rajahmundry-3; Small Reservoirs Unit, Rewa (M.P.); Cold Water Fisheries Research Unit, Srinagar; Central Inland Fisheries Research Unit, Bhagalpur; Tank Fisheries Unit, Bangalore; Sunderbans Survey Unit, Kakdwip; Soil Chemistry Unit, Strand Road, Calcutta 7; Estuarine Fisheries Research Units: (1) Pulicat Lake, Ponneri, Madras 11, (2) Kakdwip, West Bengal.

Director & Head of the Dept., Dr. V. G. Jhingran.

#### Central Marine Fisheries Research Institute Marine Fisheries, P.O. Mandapam Camp (Tamil Nadu)

#### Central Institute of Fisheries Technology P.B. No. 1039 Chittoor Road, Ernakulam, Cochin 11

Sub-Stations: Veraval (Gujarat), Kakinada (Andhra Pradesh), Burla (Orissa). Units: Bombay, Calicut, Gobindsagar (Punjab) and Goa.

Director, Dr. V. Krishna Pillai.

#### Central Rice Research Institute, Cuttack 6, Orissa Central Tractor Organisation, New Pusa, New Delhi 12

#### Directorate of Marketing and Inspection Head Office, N. H. IV, Faridabad

Agricultural Marketing Adviser to the Government of India, S. K. Bedekar, i.a.s.; Deputy Agricultural Marketing Adviser, R. N. Chaturvedi; Director of Administration, Kailash Chandra.

#### Branch Head Office, New Secretariat Bldg., Nagpur

Joint Agricultural Marketing Adviser, V. P. Anantanarayanan; Deputy Agricultural Marketing Adviser, Pritam Singh; Director of Laboratories, Dr. J. S. Pruthi.

#### Forest Research Institute & Colleges, P.O. New Forest, Dehra Dun

President, R. C. Kaushik; Registrar, Vacant; Publicity & Liaison Officer, Girish Chandra.

#### Forest Research Laboratory Malleswaram, Bangalore 3.

#### Directorate of Cotton Development 14, Nicol Road, Ballard Estate, Bombayy 1.

Director, Avtar Singh; Deputy Director, M. V. Pavate (Economics and Statistics), K. Ramachandran (Development), L. S. Joshi (Marketing and Planning), K. T. Janbandhu (Development).

#### Directorate, of Tobacco Development 3-A, Eldams Road, Teynampet, Madras 18

Director, Dr. W. G. Waljunkar; Dy. Dir. (Marketing) H. Krishnamurthy.

#### Indian Council of Agricultural Research Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi.

Director General and Vice-President, Dr. B. P. Pal; Deputy Director General (Crop Science), Dr. A. B. Joshi; Deputy Director General (Education & Centre State Relations), Dr. O. P. Gautam; Deputy Director General (Soils, Agronomy & Engineering), Dr. J. S. Kanwar; Deputy Director General (Animal Science), Dr. K. K. Iya; Secretary: K. P. A. Menon; Statistical Adviser, Chief Publicity & Public Relations Officer, K. E. Sankaran.

# COTTON TECHNOLOGICAL RESEARCH LABORATORY

Adenwala Road, Matunga, Bombay 19 DD.

Director: Dr. V. Sundaram.

#### National Dairy Research Institute, Karnal (Haryana)

Director of Dairy Research, Noshir N. Dastur, Adm. Officer, Prem Kumar.

Regional Stations: Bangalore, Kalyani (Univ. Campus) — W. Bengal, Bombay (Aarey Milk Colony, Bombay 65).

#### National Sugar Institute, Kanpur Indian Institute of Sugarcane Research, Rae Bareli Road, P.O. Dilkusha, Lucknow 2

# Sugarcane Breeding Institute

Coimbatore 7.

CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR.

#### Directorate of Lac Development Circular Road, Ranchi, Bihar

Director, R. C. Mohanty; Dy. Director, C. D. Pandey; Asst. Director, A. K. Sharan.

#### Indian Veterinary Research Institute, Mukteswar, Kumaon, U.P.

Director, Dr. C. M. Singh. Asstt. Dir., & Controller, Div. of Standardization, C. Seetharaman; Registrar, Jaswant Singh.

#### Directorate, Sugar & Vanaspati, Jamnagar House, New Delhi

Chief Director, Mangal Bihari; Addl. Chief Director, N. S. Jain; Officer on Special Duty, R. K. Badhwar; Director (Sugar Control), A. L. N. Moorthy; Director (Vanaspati), F. G. T. Menezes.

#### MINISTRY OF FOREIGN TRADE

Minister, L. N. Mishra; Dy. Minister, Chowdhry Ram Sewak; Secretary, K. B. Lall, I.C.S.; Addl. Secretary, C. S. Ramachandran, I.C.S.; Joint Secretaries, K. S. Raghupathi, A. C. Banerjee, P. K. Samal, Davinder Nath, B. N. Swarup, S. Venkatesan.

#### Office of the Chief Controller of Imports and Exports, New Delhi.

Chief Controller, R. J. Rebello, I.A.S.; Joint Chief Controllers, Dr. S. P. Chablani, T. M. B. Nedungadi, M. L. Garg, Miss P. Lal, M. H. Zinjani.

# OFFICES OF THE JT. CHIEF CONTROLLERS OF IMPORTS & EXPORTS

Central Licensing Area, Indraprastha Estate, New Delhi; C.G.O. New Bldg., New Marine Lines, Bombay 20; 4, Esplanade, East, Calcutta 1; Custom House Laboratory Bldgs., Madras 1. Other Offices: Dy. Chief Controller of Imports & Exports, T. D. Road, Ernakulam, Cochin 11; Controller of Imports & Exports, Desai Bldg., Bhupendra Road, Rajkot; Controller of Imports & Exports, Amritsar; Asstt. Controller of Imports & Exports, Shillong.

#### Office of the Controller of Enemy Firms and Enemy Trading & Custodian of Enemy Property

Kaiser-I-Hind Bldg., Currimbhoy Road, P.B. No. 689, Bombay I.

Controller of Enemy Firms and Enemy Trading and Custodian of Enemy Property, M. K. Rangachari.

## Forward Markets Commission, 'Everest', 3rd Floor, 100, Marine Drive, Bombay-2

Chairman, R. B. Waghaiwalla; Member, S. V. Kogekar; Secretary, K. S. Mahadevan.

# Rubber Board, Kottayam (Kerala State)

Chairman, T. V. Swaminathan, I.A.S.; Director of Research, K. C. Ananth; Development Officer, K. M. Joseph; Secretary, T. V. Joseph.

# Tea Board, 14, Brabourne Road, Calcutta 1

Chairman, A. K. Roy, I.A.S.; Dy. Chairman, Prem Kumar, I.A.S.; Secretary, P. V. Ramaswamy; Director of Tea Development, S. S. Nandeolyar; Director of Tea Promotion, Bimal Bose; Controller of Licensing, I. B. Ghosh.

### Coffee Board, P. Box No. 302, Bangalore 1

Chairman, I. B. Ghosh; Secretary, A. N. Balaram; Chief Coffee Marketing Officer, B. Krishna Murthy; Director of Propaganda, V. Balu; Development Officer, H. T. Ranga Setty, Director of Research, R. L. Narasimhaswamy.

# Coir Board, Post Box 1752, Ernakulam South, Cochin 16

Chairman, Col. V. V. Dev; Secretary, T. Devidas; Director, Central Coir Research Institute, G. N. Prabhu; Chief Research Officers, John Chandy (Statistics), K. B. Unnithan (Economics).

### Office of the Textile Commissioner, New C. G. O. Bldg., New Marine Lines, P.B. No. 11500, Bombay 20.

Textile Commissioner, M. A. Rangaswamy; Addl. Textile Commissioner, S. K. Bagchi; Jt. Textile Commissioner, R. C. Saksena; Industrial Adviser, I. B. Dutt; Adviser (Cotton) R. Viswanath.

#### REGIONAL OFFICES

Calcutta, Coimbatore, Madras, Kanpur and Amritsar.

#### All-India Handloom Board, Secretariat, P.B. No. 11500, New Central Govt. Office Bldg., New Marine Lines, Bombay 20.

Chairman, M. A. Rangaswamy; Vice-Chairman, R. C. Saksena; Hon. Adviser, Handlooms, Smt. Pupul Jayakar; Secretary, H. N. Satyanarayana.

### WEAVERS' SERVICE CENTRES

Bombay, Madras, Calcutta, Varanasi, Bangalore Indore, Kancheepuram and Mangalgiri.

INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY SALEM and VARANASI.

#### Department of Commercial Intelligence and Statistics, 1, Council House Street, Calcutta 1

Director-General of Commercial Intelligence and Statistics, Dr. S. G. Rao; Dy. Directors-General, J. B. Chakrabarty, A. S. K. V. S. Prakasa Rao, R. N. Ghosh, V. Bhanu Koti.

#### Tariff Commission, Central Govt. Offices Bldgs., 101, Maharshi Karve Road, Bombay 20

Chairman, B. N. Banerji; Members, F. H. Vallibhoy, Pramod Singh; Secretary, Dr. P. V. Gunishastri.

#### Trade Marks Registry, Central Govt. Bldg., Maharshi Karve Road, Bombay 20

Controller General of Patents, Designs and Trade Marks, Dr. S. Vedaraman; Jt. Registrar of Trade Marks, V. G. Nair; Deputy Registrar, M. D. Dhanbhoora; Dy. Registrar of Trade Marks, Calcutta, P. Narayanan, Asst. Registrar of Trade Marks, V. R. Keshavraj (Madras), V. H. Mehta (Delhi).

#### Central Silk Board, Meghdoot, 95-B, Marine Drive, Bombay 2

Chairman, D. Devaraj Urs; Secretary, S. R. Ullal; Deputy Secretary, (Tech.), A. R. S. Gopalachar; Assistant Secretary (Tech.), T. S. Sundaramurthy; Publicity Officer, K. I. Ahmed; Assistant Secretary (Admn.), M. V. Abhyankar.

#### All India Handicrafts Board, Block 7 (West) Ramakrishna Puram, New Delhi-22

Chairman, Anil K. Chanda; Vice-Chairman, Smt. Kitty Shiva Rao; Member Secretary & Dev. Commissioner for Handicrafts, S. K. Guha; Directors of Handicrafts, Bharat Sahay, D. Sreenivasan; Director of Crafts Museum, Ajit Mookerjee.

# MINISTRY OF HEALTH, FAMILY PLANNING & WORKS, HOUSING & URBAN DEVELOPMENT

Minister, K. K. Shah; Ministers of State, Parimal Ghosh, B. S. Murthy.

#### DEPARTMENT OF HEALTH & FAMILY PLANNING

Secretary, B. P. Patel; Addl. Secretary, A. N. Kidwai; Joint Secretaries, R. N. Madhok (Health), Gian Prakash, (Health), P. S. Appu (Family Planning); Honorary Adviser in Homoeopathy, Dr. K. G. Saxena; Honorary Dental Adviser, Col. N. N. Bery; Commissioner, Family Planning, Dr. (Miss) L. V. Phatak; Adviser, P.H.E., A. K. Roy.

# DEPARTMENT OF WORKS, HOUSING AND URBAN DEVELOPMENT

Secretary, P. R. Nayak, I.C.S.; Joint Secretaries, B. L. Chak, I.A.S., P. Prabhakar Rao, I.A.S., Kartar Singh, I.A.S.

#### Directorate-General of Health Services

Director-General of Health Services, Dr. P. K. Duraiswami, Addl. Director-General of Health Services, Dr. J. B. Srivastav; Dy. Directors-General of Health Services, Vacant (Smallpox), Dr. J. K. Thanawala (Health Adm.), Dr. P. Diesh (Central Govt. Health Scheme); Dr. J. C. Sachdev (Medical Care & Medical Edn.).

Advisers, (Tuberculosis) Dr. N. K. Menon, (V.D.), Dr. D. N. Mulay.

### All-India Institute of Hygiene and Public Health 110, Chittaranjan Avenue, Calcutta 12

Director, Dr. M. N. Rao; Dy. Dir., I. K. Sen; Administrative Officer, B. Pal.

### Central Drugs Laboratory, 3 Kyd Street, Calcutta 16

#### Central Drugs Standard Control Organisation, Ministry of Health, New Delhi

Drugs Controller, (India), P. S. Ramachandran; Dy. Drugs Controller, Dr. S. S. Gothoskar; Asstt. Drugs Controller, B. L. Naik.

East Zone Office, Calcutta, Dy. Drugs Controller, S. H. Merchant; West Zone Office, Bombay, Dy. Drugs Controller, R. Balasubramanyam; North Zone Office, Ghaziabad, Assistant Drugs Controller, Dr. V. A. Moghe; South Zone Office, Madras, Assistant Drugs Controller, Dr. Prem Kumar Gupta.

### Central Research Institute, Kasauli

#### All-India Institute of Medical Sciences Ansari Nagar, New Delhi 16

### National Institute for Communicable Diseases 22, Alipore Road, Delhi 6

Director, Dr. N. G. S. Raghavan; Dy. Directors, Dr. A. K. Krishnaswami, Dr. B. L. Wattal, Dr. Satya Prakash, Dr. S. Pattanayak, Dr. S. C. Arya, Dr. P. C. Basu (National Filaria Control Programme).

Southern India Branch, Coonoor; Plague Investigation Fd. Stn., Kolar; Filariasis Trg. Centres, Calicut, Rajahmundry and Varanasi; Pilot Project for the Control of B. Malayi Filariasis in Kerala.

#### Central Public Works Department (Central Office, New Delhi)

Engineer-in-Chief, M. L. Nanda; Director of Administration, Kailash Prakash; Director of Horticulture, J. B. Mathur.

#### Department of Explosives, Old High Court Buildings, Nagpur

Chief Inspector of Explosives in India, S. C. Roy; Dy. Chief Inspector of Explosives, M. P. Mukherji; Senior Inspectors of Explosives, H. Office, Nagpur, K. Sankaran; South Circle, Madras, I. N. Murthy; East Circle, Calcutta, V. A. Chandrasekharan; West Circle, Bombay, B. N. De; North Circle, Agra, J. K. John; Ins. of Explosives, Central Circle, Gwalior, K. S. Subramanyam.

#### MINISTRY OF HOME AFFAIRS

Minister, Mrs. Indira Gandhi; Ministers of State, K. C. Pant, Ram Niwas Mirdha; Dy. Minister, K. S. Ramaswamy; Hindi Adviser, R. D. Sinha 'Dinkar'; Secretary, L. P. Singh, I.C.S.; Secretary (Services), H. Lal; Spl. Secretary, M. G. Pimputkar; Joint Secretary & Establishment Officer, V. Kumar; Joint Secretaries, J. C. Agarwal, Asoka Sen, H. K. L. Capoor, J. M. Lalvani, A. D. Pande, K. R. Pradhu, T. C. A. Srinivasavardan, R. D. Thapar, Uma Shankar, B. Venkataraman, B. G. Deshmukh; Dir. of Trg. & Jt. Secretary, B. C. Mathur; Central Vigilance Commissioner, S. Dutt.

#### Registrar General Kotah House Annexe, 2/A, Mansingh Road, New Delhi 11

Registrar General & Ex-Officio Jt. Secretary, A. Chandrasekhar, I.A.S.; Dy. Registrars-General, V. K. Ramabhadran (Vital Statistics), K. D. Balla, I.A.S. (Census), Dr. B. K. Roy Burman (Social Studies).

#### NATIONAL ACADEMY OF ADMINISTRATION, CHARLEVILLE, MUSSOORIE.

Director, D. D. Sathe, I.C.S.; Jt. Director, T. N. Chaturvedi, I.A.S.

#### CENTRAL BUREAU OF INVESTIGATION, HEADQUARTERS OFFICE FARIDKOT HOUSE, LYTTON ROAD, NEW DELHI 1.

Director, CBI & IGP, SPE, F. V. Arul, I.P.; Addl. Director, CBI & SPL, IGP, SPE, D. Sen; Jt. Directors, CBI & IGP, SPE, P. Kandaswamy, I.P.S., M. P. Singh, I.C.S.

#### **Enforcement Directorate**

North Block, Room No. 265, Central Secretariat, New Delhi.

Director, M. G. Wagh, I.P.; Additional Director, A. J. Rana; Delhi Zonal Office — Reserve Bank of India, 1st Floor, New Delhi; Bombay Zonal Office — Janmabhoomi Chambers, Walchand Hirachand Marg, Bombay 1; Calcutta Zonal Office — 8, Lindsay Street, Calcutta-16; Madras Zonal Office — Shastri Bhavan, III Block, 35, Haddows Road, Madras-6; Other Offices: No. 15, 10th Main Road, Builtup Area; Vasant Nagar, Bangalore; Chandra Colony, Ellis Bridge, Ahmedabad-6; Room No. 4, Old Merchants, Willingdon Island, Cochin-3; Central Excise Office, Central Revenue Building, Madurai-2.

#### Commissioner for Linguistic Minorities in India 40, Hamilton Road, Allahabad 2

Commissioner, Smt. M. Chandrasekhar; Dy. Commissioner, L. B. Thanga, I.A.S.

#### **Monopolies Commission**

Chairman, Justice A. Alagiriswami, Members, Dr. H. K. Paranjape, D. Subramaniam, Secretary, D. P. Roy.

#### MINISTRY OF INDUSTRIAL DEVELOPMENT, INTERNAL TRADE

Minister, Dinesh Singh; Deputy Minister, M. R. Krishna; Secretary, (Industrial Development), T. Swaminathan; Secretary, (Heavy Industries), B. D. Pande; Additional Secretary, K. Balachandran; Joint Secretaries, R. V. Subramanian, N. J. Kamath, R. K. Talwar, K. D. N. Singh, Abid Husain and C. Balasubramanian.

#### The Patent Office 214, Acharya Jagadish Bose Road, Calcutta

Controller General of Patents, Designs & Trade Marks, Dr. S. Vedaraman; Jt. Controller, of Patents & Designs, R. V. Pai.

#### Small-Scale Industries, Nirman Bhavan, Maulana Azad Road, New Delhi 11

Development Commissioner, K. L. Nanjappa; Joint Development Commissioner, Lal Khama.

#### Small Industries Service Institute, Opp. Okhla Industrial Estate, New Delhi 20

Small Industries Service Institute, Kurla-Andheri Road, Saki Naka, Bombay 72

#### Small Industries Service Institute, 4, Camac Street, Calcutta 16

Small Industries Service Institute, 65-1, Grand Southern Trunk Road, Guindy, Madras 32 Khadi and Village Industries Commission, Irla Road, Vile Parle (West), Bombay 56

Chairman, U. N. Dhebar; Vice-Chairman, K. Arunachalam; Member-Secretary, Som Dutt; Member, Manmohan Chaudhary; Financial Adviser, T. M. George; Chief Executive Officer, S. R. Mukerji; Controller of Accounts & Inspection, N. S. Bhende; Dy. Chief Executive Officer, P. V. Shrikanta Rao; Director of Publicity, J. N. Verma.

#### Heavy Electricals (India) Limited, Bhopal 22

Chairman & Managing Director, S. Swayambu; General Manager, T. V. Parthasarathy; Chief Adm. Officer, Baldev Singh; Commercial Manager, F. Haque; Works Manager, M. S. Padmanabhan; Commercial Engineer, K. M. Sinclair; Secretary, R. C. Gupta.

#### Hindustan Cables Ltd., P.O. Hindustan Cables, Dist. Burdwan, W. Bengal

Managing Director, I. K. Gupta; Chief Technical Manager, P. Mukundan; Chief Operational Manager, S. K. Roy, Chief Comm. & Admn. Manager, S. P. Banerji; Secretary, D. D. Banerjee.

#### Hindustan Machine Tools Limited, H.M.T., P.O., Bangalore 31

Chairman & Managing Director, S. M. Patil; General Managers, K. R. S. Gowda (HMT-I & II-Bangalore), P. S. Banerjee (HMT-III PINJORE), V. K. Lyer (HMT-IV-Kalamassery), B. Ramachandra (HMT-V-Hyderabad), and M. N. Madhav Murty (HMT Watch Factory, Bangalore); Chief Commercial Manager, M. Nageswara Rao; (Controller of Finance & Accounts), C. S. Satyanarayana; Joint General Manager (Foreign Operations), R. Yogeshwar; Sales Manager, N. K. Krishnan Kutty; Chief, Project Planning & Development, K. S. Namdev Rao.

#### Office of the Salt Commissioner, P. Box No. 139, Jaipur

Salt Commissioner, K. L. Gambhir; Dy. Salt Commissioner, B. K. Rov.

Deputy Salt Commissioners, C. L. Malhotra (Exchange Bldg., Sprott Road, B. Estate, Bombay 1), S. R. Bose (Sastri Bhavan, P.B. No. 706, Madras 6), Asstt. Salt Commissioner, E. S. Phadatare (13, Lindsay St., 6th Flr., Calcutta 16).

# MINISTRY OF INFORMATION AND BROADCASTING

Minister, Satya Narayan Sinha; Ministers of State, I. K. Gujral, Prof. Sher Singh; Secretary, K. K. Dass; Joint Secretaries, A. S. Gill, S. K. Ghose; Registrar of Newspapers, K. N. Bamzai; Director, Publications Division, C. L. Bhardwaj; Director of Field Publicity, G. N. S. Raghavan; Director of Song & Drama Division, Lt.-Col. H. V. Gupte; Director, Research & Ref. Dn., Shankar Dayal; Director, Song & Drama Dn., Lt. Col. H. V. Gupte; Director, Photo Dn., T. Kasi Nath.

# DIRECTORATE OF ADVERTISING & VISUAL PUBLICITY

B. BLOCK, CURZON ROAD, NEW DELHI 1

Director, Brig. R. Sreenivasan; Joint Director, Y. R. Mehta.

# Central Board of Film Censors, "Bharat Bhuvan," 91, Walkeshwar Road, Bombay 6

Chairman, M. V. Desai; Regional Officer, K. D. Dixit; Add. Regional Officer, Amar Varma; Regional Office, New A.I.R. Bldgs., Eden Gardens, Calcutta 1; Regional Office, 35, Haddows Road, Madras 6.

#### Films Division

24, Pedder Road, Bombay 26.

Controller of the Films Division, K. L. Khandpur; Chief Producer, Mohan Wadhwani; Public Relations Officer, V. N. Gulavani.

# Directorate-General, All-India Radio

Akashwani Bhavan, Parliament Street, New Delhi

Director General, A. K. Son; Chief Engineer, S. S. Aiyar; Deputy Director General (Programmes), Miss M. Masani; Deputy Director General (Admn.), Bir Bal; Deputy Director General (Television), S. N. Murti; Deputy Director General (Comm. & Inspection), P. C. Chatterji.

#### ALL INDIA RADIO STATIONS

Station Directors, K. P. Shungloo (Delhi), P. V. Krishnamoorthy (Calcutta), D. N. Dixit (Bombay), S. V. Natarajan (Madras), D. K. Sengupta (Lucknow), S. B. Singh (Patna), Smt. S. R. Venkataraman (Nagpur), U. L. Baruah (Gauhati), S. A. Thakore (Ahmedabad), V. S. Sastry (Trivandrum), M. S. Gopal (Tiruchirapalli), A. L. Maini (Stinagar), R. C. Rajasekhar (Bangalore), R. N. Das (Cuttack), Mohd. Yusuf (Jaipur), B. M. Lal (Kurseong), G. K. Menon (Panaji), N. Iqbal Singh (Port Blair), T. R. Murlidharan (Kohima), B. B. Bhonsale (Poona), M. G. Vaidya (Bhopal), S. B. Saharya (Allahabad), V. Lakshminarasimhan (Calicut), K. K. Mathur (Imphal), A. R. Shinde (Bhuj), M. B. Nagarkar (Indore), Ashfaq Husain (Vijayawada), P. Balagurumurthi (Hyderabad), V. B. Agarwal (Jammu), A. N. Kaul (Simla), V. Krishnaswamy (Shillong), G. H. Vyas (Jullundur), A. K. Das (Dibrugarh).

Assistant Station Directors, M. A. Khan (Dharwar); P. Dharmagnani (Rajkot); K. B. Ramteke (Ranchi); S. P. Adya (Mathura); N. R. Tandon (Pondicherry); P. G. K. Menon (Chandigarh); A. S. Murti (Jeypore); A. M. Rasheed (Sambalpur); S. Krishnaswamy (Aijal); B. S. Bahl (Teju); Directors, Central Sales Unit, G. P. S. Nayar, (Bombay); S. N. Prasad (Pasighat).

#### **Press Information Bureau**

Sastri Bhavan, Dr. Rajendra Prasad Road, New Delhi. Principal Information Officer, M. L. Bharadwaj; Directors of Public Relations, K. K. Nair, G. Govindan, B. P. Mathur (Defence Wing-South Block), N. Sethi; Senior Deputy Principal Information Officer, Madan Gopal; Deputy Principal Information Officers, B. R. Bowry, G. Trivedi, S. A. J. Zaidi, U. C. Tewari, V. F. D'Souza, P. N. Tripathi, L. Y. Chandoke, S. Srinivasachar.

Bombay Office: (United India Bldg., Sir Pherozshaw Mehta Road, Bombay 1) — Calcutta Office: (A.I.R. Bldg., Eden Gardens, Calcutta 1) — Madras Office: (Sastri Bhavan, Block II, Grd. Flr., 35, Haddows Road, Madras 6) — OTHER OFFICES: G. T. Road, Opp. Nehru Garden Jullundur City; No. 112-G, Brigade Road, Bangalore; Mayfair Extn. Bldg., Lal Bagh, Lucknow; Kumari Mandir, Warriam Road, Ernakulam South, Cochin 16; Phalick Ch. Road, Uzanbazar, Gauhati 3; No. 3, Cantonment Road, Calcutta 1; Residency Road, Opp. Pratap Park, Srinagar; Brajbansisadan Buddha Marg, Patna 1; G. K. 36/7, Chowk, Varanasi; Theatre Panchsheel Bldg.,

1st Floor, Wardha Road, Nagpur; Ruby House, Subhas Marg, C-Scheme, Jaipur; No. 4-1-519, Troop Bazar, Abids Circle, Hyderabad 1; Akhandanand Hall, Bhadra, Ahmedabad; Old Municipal Bldg., Bhopal; Chitrakuti, Tilak Road, Poona 9; Jail Road, Jammu; Sreevalsom, 437/12, Opp. A.I.R., Triyandrum; Daulat Building, Panaji.

OF EDUCAT

# MINISTRY OF IRRIGATION AND POWER

Minister, Dr. K. L. Rao; Dy. Minister, Siddheshwar Prasad; Secretary, V. V. Chari, I.A. & A.S.; Joint Secretary (A), K. G. R. Iyer, I.A.S.; Commissioner for Indus Waters and ex-officio Joint Secretary, P. R. Ahuja; Commissioner (GB) and ex-officio Joint Secretary, N. C. Saksena.

# Central Board of Irrigation and Power, Curzon Road, New Delhi.

# Central Water and Power Commission (Water Wing) R. K. Puram, New Delhi 22.

Chairman S. K. Jain; Member, Y. K. Murthy; Secretary, S. Babington.

# Central Water and Power Commission (Power Wing), Bikaner House, Shahjahan Road, New Delhi.

Vice-Chairman, K. A. Dave; Member, Ipe Matha (Commercial); Directors, K. C. Krishnamoorthy, K. Mrityunjayan, T. V. Thandani, V. S. Rao, K. S. Bhardwaj.

OTHER OFFICES: R. K. Puram, New Delhi 22; Jamnagar House, New Delhi; 386, Sadashivanagar, Bangalore 6; Regional Load Survey Offices: 34, Mahim Haldar St., Kalighat, Calcutta 26; 2nd Floor, Kitab Mahal, Dadabhoy Naoroji Road, Bombay 1. Power Research Institute, Bangalore 1; Power Research Institute, Switchgear Developing & Testing Stn., Piplani, Bhopal 1; Steam Power Personnel Trg. Institute, Neyveli (S. India); Thermal Power Stn. Personnel Trg. Institute, Durgapur.

## Damodar Valley Corporation, Anderson House, Alipore, Calcutta 27.

Chairman, N. E. S. Raghavachari, I.c.s.; General Manager, D. Mookerjea.

# MINISTRY OF LABOUR, EMPLOYMENT & REHABILITATION

## Department of Labour & Employment

Minister, D. Sanjivayya; Minister of State, B. J. Azad; Dy. Minister, Bishwanath Roy; Secretary, P. M. Nayak, I.C.S.; Addl. Secretary, I. D. N. Sahi, I.C.S.; DGET/Joint Secretary, H. K. Malik, I.C.S.; Joint Secretaries, Dr. S. T. Merani, I.A.S., T. S. Sankaran, I.A.S., R. Anandakrishna, I.A.S.

#### Department of Rehabilitation

Secretary, G. S. Kahlon, I.A.S.; Joint Secretaries, H. K. Tandon, S. K. Gangopadhyay, Gopeshwar Nath; Director, Inder Sahai; Central Director of Rehabilitation, Madras, U. Vaidyanathan; Chairman, Dandakaranya Development Authority, Koraput (Orissa), Dr. Mono Mohan Das; Chief Administrator, Dandakaranya Project, Korapur, (Orissa), S. C. Roy; Chief Settlement Commissioner and Custodian General of Evacuee Property, S. K. Gangopadhyay.

# Planning Commission Yojana Bhavan, Parliament Street, New Delhi.

Chairman, Mrs. Indira Gandhi; Dy. Chairman, Dr. D. R. Gadgil; Members, B. Venkatappiah, R. Venkatraman,

Pitamber Pant; Secretary, Ashok Mitra; Advisers (Programme Administration) and ex-officio Additional Secretaries, S. Vohra, P. K. J. Menon, P. P. Agarwal, R. V. Raman; Joint Secretaries, V. M. Bhide, Saiyid Hamid, S. S. Puri, G. C. Baveja, J. M. Kitchlu; Advisers, K. B. Rao, Dr. Harbans Lal.

# Directorate-General of Employment and Training Shram Bhavan, Rafi Marg, New Delhi-1.

D.G.E. & T. & Joint Secretary, S. K. Mallick, i.c.s.; Directorate of Employment Exchanges: Directors, K. B. Sharma, A. S. Lall (Addl.); Directorate of Training: Director, Col. S. G. Pendse.

#### Coal Mines Provident Fund Commissioner, Dhanbad.

Coal Mines Provident Fund Commissioner, Prakash Chandra.

Dy. Commissioner, R. Kumar; Regional Commissioners, S. A. Moiz, B. K. Sinha, R. K. Verma, O. P. Sharma.

# Office of the Central Provident Fund Commissioner, 5, West Patel Nagar, New Delhi 8.

Central Provident Fund Commissioner, R. R. Savoor; Dy. Provident Fund Commissioner, P. S. Dhotrekar; Regional Provident Fund Commissioners, V. Hemachandra Rao, U. K. Bajpai, S. P. Mehrotra.

# Labour Bureau Cleremont, Simla 4.

# Mines Dhanbad.

Director-General of Mines Safety, R. G. Deo; Deputy Director-General, H. B. Ghose.

Directors of Mines Safety: S. N. Ramanathan (Southern Zone, Oorgaum), M. Subramanyam (Mines Development), S. S. Prasad (Central Zone, Nagpur), S. D. Prasad (N.C. S.M., Dhanbad), B. M. Bhat (Safety Standard), G. S. Marwaha (Eastern Zone, Sitarampur).

## OFFICE OF THE CHIEF LABOUR COMMISSIONER (C), SHRAM SHAKTI BHAVAN, RAFI MARG, NEW DELHI-1.

Chief Labour Commissioner, O. Venkatachalam; Dy. Chief Labour Commissioners, S. C. Gupta, O. Maheepati, R. J. T. D'Mello; Administrative Officer, Balwant Singh; Regional Labour Commissioner (Verification), M. R. Raju.

# INDIAN INSTITUTE OF LABOUR STUDIES B. 1/41 SAFDARJANG DEVELOPMENT AREA, NEW DELHI-16.

Director, P. N. Razdan; Dy. Directors, S. K. Gokhale, T. R. Malhotra.

# Central Board for Workers' Education

1400, West High Court Road, Gokulpeth, Nagpur. Chairman, Dr. S. T. Merani; Director, Dr. M. A. Chansarkar.

# Coal-mines & Mica Mines Labour Welfare Fund Organisation, Jagjivan Nagar, P.O. Dhanbad

Welfare Commissioner, S. N. Pande, I.A.S.; Dy. Welfare Commissioners, A. P. Connolly, N. M. Khanwarsi.

# Directorate-General of Factory Advice Service & Labour Institutes, Off Eastern Express Highway, Sion, Bombay 22.

Director General, Brig. G. R. Chainani; Dy. Director General, B. J. Ramrakhiani.

#### CENTRAL LABOUR INSTITUTE

Directors, Dr. S. S. Rajaswamy (Research), H. J. Bakru (Trg.), Dy. Dir. P. R. Surendranathan (Safety Centre).

Regional Labour Institute, Patipukar, Lake Town, Calcutta-55. Regional Director, P. J. Makhijani. Regional Labour Institute, Sarvodaya Nagar, Kanpur-4. Regional Director, A. K. Chakrabarty. Regional Labour Institute, Adyar, Madras-20. Regional Director, M. U. Rao.

#### MINISTRY OF LAW

Minister, K. Hanumanthaiah; Minister of State, Jagannath Rao.

## DEPARTMENT OF LEGAL AFFAIRS

Secretary, Rustom S. Gae; Joint Secretaries and Legal Advisers, K. S. Pandalai, S. Balakrishnan, G. Venkatasubramaniam, Anand Swarup Chaudhri, S. S. Kar (At Branch Secretariat, Calcutta), P. G. Gokhale (at Branch Secretariat, Bombay) P. B. Venkatasubramanian, P. V. Swarlu; Chairman Law Commission, K. V. K. Sundaram.

#### OTHER OFFICERS

Attorney-General of India, Nirein De; Solicitor-General of India, Jagdish Swarup.

#### LEGISLATIVE DEPARTMENT

Joint Secretaries & Leg. Counsels, N. D. P. Namboodiripad, K. K. Sundaram, S. K. Maitra; Chairman, Official Language (Leg.), Commission, R. N. Sharma.

# Election Commission, Talkatora Road, New Delhi 1.

Chief Election Commissioner, S. P. Sen Verma; Dy. Election Commissioners, P. I. Jacob, P. Roy; Secretaries, K. S. Rajagopalan, A. N. Sen.

# Income-Tax Appellate Tribunal

(HEADQUARTERS, BOMBAY)

Central Govt. Offices Building, 101, Maharshi Karve Road, Bombay 20.

President, K. Sadagopachari; Registrar, G. N. Jerath.

Benches at: 23-A, Thornhill Road, Allahabad; Shastri Bhavan, Dr. Rajendra Prasad Road, New Delhi; New Income-Tax Building, 22, Nungambakkam High Road, Madras 34; 50-A, Gariahat Road, Calcutta 19; 3-5-900, Himayatnagar, Hyderabad-29; Incometax and Central Excise Bldg., Gardiner Road, Patna-1; Fadia Chambers, 4th Floor, Ashram Road, Ahmedabad; Elengical House, 1/2, Cunningham Road, Bangalore; Satgamaya, XXIII/375-A, Mahatma Gandhi Road, Ernakulam, Cochin-11; 34-B, New Palasia Road No. 2 Indore; Bangalow No. 45, Sector 5, Chandigarh; Bank of India Building, 2nd floor, Kingsway, Nagpur.

# MINISTRY OF PETROLEUM & CHEMICALS & MINES & METALS

Minister, Dr. Triguna Sen; Ministers of State, D. R. Chavan, C. Nitiraj Singh; Dy. Minister, Bham Prakash Singh.

# DEPT. OF PETROLEUM & CHEMICALS

Secretary, B. Mukherji; Spl. Secretary, E. N. Mangat Rai; Joint Secretary, Department of Chemicals, M. Ramakrishnayya; Joint Secretary, Department of Petroleum, M. V. Rajwade.

# Oil and Natural Gas Commission

Post Box No. 20, Tel Bhavan, Dehra Dun.

Chairman, L. J. Johnson, I.c.s.; Director of Adm. & Chief of Vigilance & Control, Brig. S. C. Vyas (Offg.);

Directors: Col. K. B. Menon (Stores & Purchase), S. N. Sengupta (Geophysics), S. P. Joshi (Finance & Accounts), S. N. Talukdar (Geology), N. Vishvanathan (Planning & Control), V. V. Sastri (Institute of Petroleum Exploration, Kaulagarh Road, Dehra Dun). Chief Engineer (Civil), N. C. Chakraborty; Secretary, K. K. Dhar.

Projects: Western Region, Makarpura Road, Baroda 9; Nawagan Project, Yodha's Premises, Ellis Bridge, Ahmedabad 9; Ahmedabad Project, Junction of Kaba Kalol Road, Sabarmati, Ahmedabad 5; Offshore Drilling Project, 136, Sir Patni Road, Bhavnagar; Ankleshwar Project, Ankleshwar; Cambay Project, P.O. Kansari (Via Anand); Mehsana Project, Near Aerodrome Road, Mehsana; Eastern Region, P. O. Nazira (Dt. Sibsagar — Assam); Cauvery Project, 21-A, Prakash Mudali St., T. Nagar, Madras 17; Jaisalmer Project, 8, Residency Road, Jaisalmer, Port Canning Project, 24, Parganas District — W. Bengal; Surin Matgarh Project, House No. 7, Block B, Section C, Gandhi Nagar, Jammu-Tawi.

Indian Oil Corporation

254-C, Dr. Annie Besant Road, Prabhadevi, Bombay 25.

Chairman, N. N. Kashyap, I.C.S.; Financial Director, P. K. Rau; Public Relations Officer, B. V. Ranganath; Secretary, B. D. Puri.

#### MARKETING DIVISION

Managing Director, Kamaljit Singh; General Manager, S. D. Bhambri; Dy. General Manager, J. C. Goyle, T. Kumaran; Operations Manager, M. Lakshmanan; Commercial Manager, J. Jayaraman; Manager, Management Services, S. B. Budhiraja; Engineering Manager, R. M. Basrur; Chief Technical Engineer, K. Sitharama Rao; Planning, Research & Statistics Manager, R. Gurumurthy; Materials Manager, K. Rajgopaul; Manager, Personnel & Administration, B. K. Bakshi; Manager, Supply & Distribution, C. Y. V. Rao; Branch Manager, Bombay, M. A. Ananth; Branch Manager, Calcutta, Bimal Kapoor; Branch Manager, Delhi, B. M. Lal; Branch Manager, Madras, D. N. Sharma.

Branches: Western Branch: Clarke Road, Mahalaxmi, Bombay 34; Northern Branch: Indian Oil Bhavan, New Delhi-1; Eastern Branch: "Gagan Tara", 13, Camac Street, Calcutta-16; Southern Branch: "Khivraj Mansion", 150A, Mount Road, Madras 2.

# REFINERIES DIVISION Link House, 1st Floor, Mathura Road, New Delhi-1.

Managing Director, C. R. Das Gupta; Financial Controller, B. M. Prabhu; Technical Adviser, Dr. J. S. Ahluwala; Chief Administrative Officer, O. P. Sehgal; Chief Personnel Officer, V. P. Baliga. Gauhati Office: Gauhati Refinery, P. O. Noonmati, Gauhati (Assam); General Manager, D. L. Purkaystha; Barauni Office: Barauni Refinery Project, P.O. Oil Refinery, Dt. Monghyr; General Manager, R. N. Bhatnagar; Gujarat Refinery: P.O. Jawaharnagar, Baroda; General Manager, Vacant; Haldia Refinery Project, P.O. Midnapur, Kolaghat; General Manager, Balwant Singh (Camp: New Delhi).

## Indian Drugs & Pharmaceuticals Ltd. N-13, New Delhi South Extension, Part I, New Delhi-49.

Chairman & Managing Director, Jagjit Singh; Financial Adviser & Chief Accountants Officer, R. K. Chandrasekharan; Chief Sales Manager, Dr. P. Balwani; Secretary, Vikramajit; Chief of Public Relations, Krishna Chandra.

At the Projects

Gen. Manager, Antibiotics Plant, Rishikesh, S. Samaddar; Gen. Manager, Synthetic Drugs Plant, Hyderabad, Dr. L. K. Behl; Gen. Manager, Surgical Instruments Plant, Madras, Brig. M. A. Nayudu.

# THE FERTILIZER CORPORATION OF INDIA LTD. Head Office—F-43, South Extension Area, Part I, Ring Road, New Delhi-49

Chairman and Managing Director, Satish Chandra; Director (Projects), K. C. Sharma; Director (Finance), O. K. Ghosh; Director (Production), Dr. S. K. Mukherjee; Secretary, P. B. Jajodia; Planning & Development Division, Central Technical Organization, Sindri, Director (Technical), Dr. K. R. Chakravorty; Unit—Sindri, General Manager, B. K. Khanna; Unit—Nangal, General Manager, K. V. Antony; Unit—Trombay, General Manager, M. N. S. Bhagavan; Division—Namrup, General Manager, M. L. Leekha; Division—Durgapur, General Manager, N. B. Tandolkar; Division—Barauni, General Manager, R. S. Kachwaha; Eastern Marketing Zone, General Manager, R. Hasan.

#### Geological Survey of India, 27, Jawaharlal Nehru Road, Calcutta 13.

Director-General, M. S. Balasundaram; Deputy Director General (Headquarters), V. Subramanyam; Director (Administration), J. Swaminathan; Deputy Director-General: M. K. Roychowdhury (Northern Region-3 Gokale Marg, Lucknow); S. P. Nautiyal (Western Region-Prithviraj Marg, Jaipur); C. Karunakaran (Southern Region-5-5-449, Mukarram Jahi Rd., Hyderabad-1); D. R. S. Mehta (Eastern Region-5 Middleton St., Calcutta-16). Director-in-charge: P. V. Rao (Central Region-New Secretariat Bldg., Nagpur 1).

## DEPARTMENT OF MINES AND METALS

Secretary, N. Subrahmanyam, I.C.S.; Joint Secretaries, T. N. Lakshminarayanan, I.A.S., G. R. Ramanathan, I.A.S., K. S. Ramachandran, I.A.S.; Coal Mining Adviser, K. S. R. Chari.

#### Indian Bureau of Mines, Nagpur.

Controller, K. S. Mahapatra; Regional Controllers of Mines, Nagpur: Dr. S. C. Singal, I. M. Aga; Ajmer, D. M. Sen; Calcutta, G. V. Rao; Hyderabad, K. S. Nair; Bangalore, S. Balabopal.

# Coal Controller 1, Council House Street, Calcutta

Coal Controller, K. K. Ray; Dy. Coal Controller (Production), G. D. Ghatak.

#### MINISTRY OF RAILWAYS

Minister for Railways, Gulzari Lal Nanda; Dy. Ministers, R. L. Chaturvedi, M. Yunus Saleem; Railway Board: Chairman & Ex-Officio Principal Secretary to Government of India, B. C. Ganguly; Financial Commissioner & Ex-Officio Secretary to Govt. of India, K. S. Sundara Rajan; Members & Ex-Officio Secretaries, N. S. Swaminathan (Transportation), K. C. Sood (Engineering), P. Sahai (Mechanical), D. U. Rao (Finance Accounts), S. W. Shiveshwarkar (Director-General, Vigilance); Additional Members, T. N. Dar (Commercial); N. K. Mehra (Works), J. B. Rao (O.S.D., Freight Structure), G. Venkatasubramaniam (Jt. Secy. & Legal Advr.), K. V. Kasturi Rangan (Staff); K. S. Bhandari (Finance), K. Vaidyanathan (Mechanical); Secretary, C. S. Parameswaran.

## Research, Designs & Standards Organisation, Alambagh. Lucknow 5.

Director-General, M. Srinivasan; Dy. Director General, A. Sukumaran.

# Railway Rates Tribunal

1, Pughs' Road, Madras 28.

Chairman, S. Barman; Members, K. S. Sonachalam. K. J. Chandy ; Secretary, K. S. Shankaraiya.

# Chittaranjan Locomotive Works, Post Chittaranjan, District Burdwan, West Bengal.

General Manager, H. M. Chatterjee; Chief Mechanical Engineers, T. C. Cheddda; S. C. Mishra.

# Integral Coach Factory

Perambur, Madras 38.

General Manager, R. Rajagopalan; Financial Adviser and Chief Accounts Officer, M. Sundar Raj; Chief Mechanical Engineer, S. N. Mathur; Public Relations Officer, V. R. Ramanathan.

# MINISTRY OF SHIPPING AND TRANSPORT

Minister, K. Raghu Ramaiah; Dy Minister, Sardar Minister, K. Raghu Ramaiah; Dy Minister, Sardar Iqbal Singh; Secretary, S. K. Datta, I.C.S.; Jt. Secretary, Chairman, Inter-State Transport Commission, K. Narayanan; Jt. Secretary, R. Thirumalai; Director-General (Road Development) and Addl. Secretary, S. N. Sinha; Development Adviser, R. R. Sukhrani; Secretary, Border Roads Development Board and Ex-Officio Joint Secretary, S. K. Chhibber; Chief Controller of Chartering and Ex-Officio Joint Secretary, E. Kolet; Director General of Border Roads, Major-Gen. J. S. Bawa; Chairman, National Shinping Board, M. V. Krishnappa. Shipping Board, M. V. Krishnappa.

# MAJOR PORT AUTHORITIES

Chairman, Calcutta Port Commissioners, N. C. Sen Gupta, I.C.s.; Chairman, Madras Port Trust, A. Venka-tesan, I.A.s.; Chairman, Bombay Port Trust, L. M. Nadkarni; Chairman, Cochin Port Trust, K. P. K. Menon; Chairman, Kandla Port Trust, Commodore S. K. Chatterjee ; Chairman, Visakhapatnam Port Trust, H. Sambamurti, I.A.S.; Chairman, Mormugao Port Trust, V. Srinivasachar, I.A.S.; Chief Engineer and Administrator, Mangalore Harbour Project, H. K. Panditaradhya; Chief Engineer and Administrator, Tuticorin Harbour Project, P. Sivalingam; Chairman, Paradip Port Trust, R. N. D. Ambrose, I.A.S.

# Directorate General of Shipping, Jahazrani Bhavan, Walchand Hirachand Marg, Bombay 1

Director-General of Shipping, R. Doraiswamy, I.A.S.; Sr. Director-General of Shipping, Y. S. Kasbekar I.A.S.; Deputy Directors-General of Shipping, G. S. Banerji I.A.S., T. K. Sarangan, N. K. Gopalan Nair, P. N. Anand.

# TECHNICAL OFFICERS

Nautical Adviser to the Government of India, Capt. M. S. Patel; Chief Surveyor with the Government of India, B. K. Gupta.

LAL BAHADUR SHASTRI NAUTICAL & ENGINEERING COLLEGE Hay Bunder, Tank Road, Bombay 33.

# DIRECTORATE OF MARINE ENGINEERING TRAINING

P. 19, Taratolla Road, Calcutta, 53. Branch: Hay Bunder, Tank Road, Bombay 33. Director, T. K. T. Srisailam.

# MERCANTILE MARINE DEPARTMENT

Central Govt. Offices Bldg., South Wing, Queen's Road. Bombay 1.

Principal Officer, Registrar of Indian Ships and Chairman, Deck Passenger Welfare Committee, K. Parthasarathy; Other Offices: CALCUTTA: Marine House, Hastings, Calcutta 22. Madras—Old High Court Bldgs., Madras. VISAKHAPATNAM. COCHIN. JAMNAGAR: "Tej Prakash Bhuvan", Pandit Nehru Road, Jamnagar. Panaji & MORMUGAO, GOA.

#### SEAMEN'S WELFARE OFFICE

Nou Bhavan, Nicol Road, Ballard Estate, Bombay.

Principal Seamen's Welfare Officer, B. K. Shroff; CALOUTTA—Marine House, Hastings, Calcutta 22; Principal Seamen's Welfare Officer, N. C. Trivedi; MADRAS— Old High Court Bldg., Madras 1; Seaman's Welfare Officer, V. Ranganathan.

# Lighthouse and Lightships Department

East Block X, Level IV, Ramakrishnapuram, New Delhi

Director General of Lighthouses & Lightships and Chief Inspector of Lighthouses in India, Commodore G. S. Kapoor, I.N.

Engineers, K. R. Bose (Calcutta), S. L. Kapoor (Jamnagar), R. S. Srivathsan (Calcutta); Directors of Lighthouses & Lightships, E. U. Rao, I. G. Argunani (Hqrs), B. R. Karnik (Calcutta), C. V. Chaubal (Port Blair), N. R. Gopalswami (Madras), K. V. Mohan Rao (Panaji), M. D. Basu (Bombay), J. N. Mandkar (Jamnagar); Adm. Officer, C. V. S. Murty.

# MINISTRY OF STEEL & HEAVY ENGINEERING

Minister, B. R. Bhagat; Dy. Minister, Mohd. Shafi Qureshi; Secretary, R. C. Dutt; Joint Secretaries, P. Sabanayagam, O. N. Mishra, Maheshwar Prasad; Director, J. C. Luther; Sr. Industrial Adviser, Hari Bhushan.

# Hindustan Steel Ltd., P.O. Hinoo, Ranchi 2, Bihar State.

Chairman, K. T. Chandy; Director (Personnel), R. P. Billimoria; Director (Commercial), H. Bhaya; Director Relations Officer, Shanker Mitra; Public Relations Officer, M. S. Srinivasan.

# Iron & Steel Control Organisation, 33, Netaji Subhas Road, Calcutta 1.

Iron and Steel Controller, S. C. Mukherjee; Price & Accounts Officer, S. N. Roy Choudhury; Dy. Iron & Steel Controller, P. R. Nair.

# MINISTRY OF TOURISM & CIVIL AVIATION Sardar Patel Bhavan, Parliament Street, New Delhi.

Minister, Dr. Karan Singh; Dy. Minister, Dr. Smt. Sarojini Mahishi; Secretary, N. Sahgal; Director-General of Civil Aviation, G. C. Arya ; Jt. Director-General, C. R. Rao; Deputy Directors-General, S. Ramamrithan, B. S. Gidwani; Director-General of Tourism, S. K. Roy.

# AIR ROUTES AND AERODROMES ORGANIZATION

Controllers of Aerodromes, M. H. Limaye (Bombay); Joginder Singh (Madras); J. N. Dhar (New Delhi); P. K. Ramachandran (Dum Dum).

# COMMISSION OF RAILWAY SAFETY B-125, Nirala Nagar, Lucknow.

Commissioner of Railway Safety, P. B. Aibara; Dy. Commissioners, P. M. N. Murthy (Hqrs.), S. S. Lall (S. & T.), C. S. P. Sastry (E. & T.); Additional Commissioners: P. B. Aibara (W. Circle — Bombay), G. S. Pandor (N. E. Circle—Calcutta), Arya Bhushan (S. E. Circle — Calcutta), C. R. Sule (N. Circle—Lucknow), H. S. Hart (S. Circle—Bangalore).

# India Meteorological Department, Headquarters, Lodi Road, New Delhi 3

## OFFICE OF THE DIRECTOR-GENERAL OF OBSERVATORIES

Director-General of Observatories, Dr. P. Koteswaram; Dy. Director-General of Observatories (Adm.), P. Y. Rao; Director, Aviation Services, S. Mazumdar; Director, Seismology, Vacant; Director, N. Hemisphere Analysis Centre, Dr. P. K. Das; Director, Telecommunications, S. K. Das.

Dy. Directors-General of Observatories: Miss A. M. Mani (Instruments—New Delhi), Vacant (Forecasting—Meteorological Office, Ganeshkhind Road, Poona 5), K. N. Rao (Climatology and Geophysics—Meteorological Office, Ganeshkhind Road, Poona 5).

Directors: Dr. R. Ananthakrishnan (Institute of Tropical Meteorology, Ram Drug House, Ganeshkhind Road,

Poona 5), C. R. V. Raman (Agricultural Meteorology, Meteorological Office, Ganeshkhind Road, Poona 5), Dr. N. Ramalingam (Regional Meteorological Centre, New Delhi), N. C. Rai Sircar (Regional Meteorological Centre, Alipore, Calcutta), M. Rama Rao (Regional Meteorological Centre, Bombay 5), N. M. Philip (Regional Meteorological Centre, Madras), K. S. Venkatraman (Regional Meteorological Centre, Civil Aerodrome, Sonegaon, Nagpur), B. N. Bhargava (Colaba and Alibag Observatory, Bombay 5), Dr. M. K. Vainu Bappu (Astrophysical Observatory, Kodaikanal), U. R. Acharya (Instruments, Meteorological Office, Ganeshkhind Road, Poona 5), J. Das Gupta (Radio Meteorology, Meteorological Office, New Delhi 3), George Alexander (Indian Ocean Southern Hemisphere Centre, Meteorological Office, Poona 5), M. S. V. Rao (Training, Meteorological Office, Poona 5), M. S. V. Rao (Training, Meteorological Office, Poona 5)

# SUPREME COURT OF INDIA Tilak Marg, New Delhi

Chief Justice of India, M. Hidayatullah; Judges, Justice J. C. Shah; Justice S. M. Sikri; Justice J. M. Shelat; Justice V. Bhargava; Justice G. K. Mitter; Justice C. A. Vaidialingam; Justice K. S. Hegde; Justice A. N. Grover; Justice A. N. Ray; Justice Pingle Reddy Jagan Mohan; Justice Inder Dev Dua.

Registrar, C. V. Rane.

# UNION PUBLIC SERVICE COMMISSION

# Dholpur House, P. Box 186, Shahjahan Road, New Delhi 4

Chairman, K. R. Damle; Members, R. C. S. Sarkar, Hari Sharma, Dr. A. R. Kidwai, Maj. Gen. P. C. Gupta, Dr. M. L. Shahare, D. P. Kohli, Prof. H. N. Ramachandra Rao; Secretary, Rajendra Lal; Controller of Exams, Harish Chandra.

# INDIAN DIPLOMATIC REPRESENTATIVES ABROAD

#### **EMBASSIES**

AFGHANISTAN: Ambassador: A. N. Mehta. Address: Embassy of India, Malai Wat, Kabul.

ALGERIA: Ambassador: Mohammed Yunus. Address: Embassy of India, 119 ter, Rue Didouche Maurad, Algiers.

ARGENTINA: Ambassador (also Ambassador to Paraguay and Ambassador to Uruguay): B. K. Sanyal. Address: Embassy of India, Lavalle (3rd Floor), Buenos Aires.

AUSTRIA: Ambassador: V. C. Trivedi. Address: Embassy of India, 1, Openning, Vienna 1.

BELGIUM: Ambassador (concurrently Ambassador to Luxembourg): B. R. Patel.\* Address: Embassy of India, 121, Avenue Moliere, Brussels 18.

BOLIVIA: Ambassador (concurrently Ambassador to Brazil and Venezuela): Prithi Singh. Resident in Rio de Janeiro.

BRAZIL: Ambassador (also Ambassador to Bolivia & Venezuela): Prithi Singh. Address: Embassy of India, Rua Barao de Flamengo 22, Aptos 801-802, Rio de Janeiro.

 $\operatorname{BULGARIA}: Ambassador:$  Dr. Gopal Singh. Address: Embassy of India, Sofia.

BURMA: Ambassador: Baleshwar Prasad. Address: Embassy of India, Oriental Assurance Bldgs., 545-47, Merchant Street, Rangoon.

BURUNDI (Kingdom of): Ambassador (also Ambassador to the Republic of Rwanda & High Commissioner to Uganda): R. R. Sinha. Resident in Kampala.

CAMBODIA: Ambassador: Dr. S. Gupta. Address: Embassy of India, Phnom Penh.

CAMEROUN & DAHOMEY REPUBLICS: Ambassador (also Ambassador to Togo & High Commissioner to Nigeria): S. G. Ramachandran. Resident in Lagos.

CHILE: Ambassador (concurrently Ambassador to Colombia & Peru): K. L. Mehta. Address: Embassy of India, 871, Triana, Santiago.

CHINA: Minister & Charge-d'affaires: B. C. Mishra. Address: Embassy of India, 8, Kwang Hua Lu, Peking.

COLOMBIA: Ambassador (also Ambassador to Chile & Peru): K. L. Mehta. Resident in Santiago (Chile).

CONGO: Ambassador (also Ambassador to Gabon & Congo-Brazzaville): Surendra Singh of Alirajpur. Address: Embassy of India, 18, Avenue 8 eme Armee, Kinshasa.

COSTA RICA: Ambassador: V. K. Ahuja. Address: Resident in New York (Consulate-General India, New York).

CUBA: Ambassador (concurrently Ambassador to Panama and Mexico): B. K. Massand. Resident in Mexico City.

CZECHOSLOVAKIA: Ambassador: S. H. Desai. Address: Embassy of India, Valdstejnska 6, Prague 1.

<sup>\*</sup>Additionally the Ambassador is India's Special Representative for Economic, Financial and Commercial Affairs, and is also accredited to the European Economic Community and the European Coal and Steel Community.

DENMARK: Ambassador: M. R. Thadani. Address: Embassy of India, 8-11, Amergertory, Copenhagen.

ETHIOPIA: Ambassador: O. V. Alagesan. Address: P.O. 528, Addis Ababa.

FINLAND: Ambassador: C. J. Stracey. Address: Embassy of India, Kansakoulukatu, 5 B 14, Helsinki 10.

FRANCE: Ambassador: D. N. Chatterjee. Address 1 Embassy of India, 15, Rue Alfred Dehodencq, Paris, 16e.

GABON: Ambassador (also Ambassador to Congo & Brazaville-Congo): Surendra Singh of Alirajpur. Resident in Kinshasa.

GERMANY (Federal Republic of): Ambassador: Khub Chand. Address: Embassy of India, 262, Adenaurallee, Bonn.

GREECE: Ambassador (also Ambassador to Yugoslavia): Rikhi Jaipal, Resident in Belgrade.

GUINEA: Ambassador (also Ambassador to Mali): Prem Shankar. Address: Embassy of India, Kebe Bldg., 3rd Floor, Conakry 1.

HUNGARY: Ambassador: Miss C. B. Muthanna. Address: Embassyof India, Buzavirag Utca 14, Budapest II.

INDONESIA: Ambassador: N. B. Menon. Address: Embassy of India, P. Box No. 118, 44 Kebon Serih, Djakarta.

IRAN: Ambassador: M. A. Rahman. Address: Embassy of India, 166, Avenue Saba Shomali, Tehran.

IRAQ: Ambassador: Mahboob Ahmed. Address: 22/12AI, Taha Najeeb Pasha, Adhamiya, Baghdad.

IRELAND: Ambassador: S. V. Patel. Address: 58, Upper Leeson Street, Dublin 4.

ITALY: Ambassador (also High Commissioner to Malta): J. K. Atal. Address: Embassy of India, via Francesco Dense, 36, Rome.

IVORY COAST: Ambassador (also Ambassador to Senegal, Mauritania & Upper Volta & High Commissioner to Gambia: Hari Krishna Singh. Resident in Dakar.

JAPAN: Ambassador: Vincent H. Coelho. Address: Embassy of India, No. 2, 2-Chome, Kudan, Minami Chiyodaku, Tokyo.

JORDAN: Ambassador: Akbar Khaleeli. Address: Ambassy of India, Amman.

KUWAIT: Ambassador: S. K. Chowdhry @. Address: Embassy of India, King Road No. 1, Dasmah, Kuwait.

LAOS: Ambassador: A. S. Gonsalves. Address: Indian Embassy, P.O. Box No. 225, Vientiane.

LEBANON: Ambassador (also High Commissioner to Cyprus): A. K. Dar. Address: Embassy of India, Sahamarani Bldg., 31, Kantari St., Beirut.

LIBERIA: Ambassador (also High Commissioner to Ghana and Sierra Leone): A. S. Mehta. Resident in Acera.

LIBYA: Ambassador (also Ambassador to U.A.R. & Yemen): I. J. Bahadur Singh. Resident in Cairo.

LUXEMBOURG: Ambassador (also Ambassador to Belgium): B. R. Patel. Resident in Brussels.

MALAGASY: Ambassador: Vacant\*. Address: P.O. Box 1787, Tananarive.

MALI: Ambassador (also Ambassador to Guinea): Prem Shankar. Resident in Conakry.

MAURITANIA: Ambassador (also Ambassador to Senegal, Ivory Coast and Upper Volta and High Commis-

@ Ambassador's Jurisdiction extends to Bahrain, Dubai & Muscat.

sioner to Gambia): Hari Krishna Singh. Resident in Dakar.

MEXICO: Ambassador (also Ambassador to Cuba & Panama): B. K. Massand. Address: Embassy of India, Avenida, Tennyson, 67 Col. Polango, Mexico 5, D.F. Station: Mexico City.

MONGOLIA: Ambassador (also Ambassador to U.S. S.R.): D. P. Dhar. Resident in Moscow.

MOROCCO: Ambassador (also Ambassador to Tunisia): V. Madhavan Nair. 11, Rue Descartes, Rabat. Station: Rabat.

NEPAL: Ambassador: Raj Bahadur. Address: Embassy of India, G.P.O. Box 292, Kathmandu.

NETHERLANDS: Ambassador: J. N. Dhamija. Address: Embassy of India, Buitenrustwag 2, The Hague.

NORWAY: Ambassador: J. K. Ganju. Address: Embassy of India, 48, Professor Dahls Gate, Oslo.

PANAMA: Ambassador (also Ambassador to Cuba & Mexico): B. K. Massand. Resident in Mexico City.

PARAGUAY: Ambassador (also Ambassador to Argentina and Uruguay): B. K. Sanyal. Resident in Buenos Aires.

PERU: Ambassador (also Ambassador to Chile and Columbia): K. L. Mehta. Resident in Santiago.

PHILIPPINES: Ambassador: B. Deva Rao. Address: Embassy of India, 1856, B. Bocobo Street, Malate, Manila.

POLAND: Ambassador: Natwar Singh. Address: Embassy of India, No. 16, Niegolewskiego, Warsaw 86.

RUMANIA: Ambassador: Thiruvengada Than Address: 16, Aleea Stefan Gheorghin, Bucharest.

RWANDA (Republic of): Ambassador (also Ambassador to the Kingdom of Burundi & High Commissioner to Uganda): R. R. Sinha. Resident in Kampala.

SAUDI ARABIA: Ambassador: T. T. P. Abdullah. Address: Embassy of India, Sulaiman-Al-Turkey House, Al Sharafia, Boghdadia, Jeddah.

SENEGAL: Ambassador (also Ambassador to Ivory Coast, Mauritania & Upper Volta & High Commissioner to Gambia): Hari Krishna Singh. Address: Embassy of India, P. Box 398, Dakar.

SOMALIA: Ambassador: Muni Lal. Address: Embassy of India, P. Box 955, Mogadishu.

SOUTHERN YEMEN (Republic of): Ambassador: J. L. Malhotra. Address: Embassy of India, Aden.

SPAIN: Ambassador: S. Bikram Shah. Address: Calle Marques de Urquijo, 38, Madrid.

SUDAN: Ambassador: K. L. Dalal. Address: P. Box No. 707, Khartoum.

SWEDEN: Ambassador: P. R. S. Mani. Address: Embassy of India, V. Tradgardsgatan 15, Stockholm.

SWITZERLAND: Ambassador (concurrently accredited as Ambassador to the Vatican): M. Azim Husain. Address: Embassy of India, 20, Kalcheggeweg, 3000 Berne.

SYRIAN ARAB REPUBLIC: Ambassador: V. A. Kidwai. Address: Embassy of India, 40/46, Yasin Nuwai Lati Bldg., Avenue Adnan Malka Imm., Damascus. THAILAND: Ambassador: Dr. P. K. Banerjee. Address: Embassy of India, 139, Pan Road, Bangkok.

TOGO: Ambassador (also Ambassador to Cameroun and Dahomey Republics and High Commissioner to Nigeria): S. G. Ramachandran. Resident in Lagos.

<sup>\*</sup> Also Consul-General to Comores & Reunion Islands.

TUNISIA: Ambassador (also Ambassador to Morocco): V. Madhavan Nair. Resident in Rabat, Morocco.

TURKEY: Ambassador: U. S. Bajpai. Address: Embassy of India, No. 50, Kizilirmak Sokak, Kocatepe, Ankara.

UNITED ARAB REPUBLIC: Ambassador (concurrently Ambassador to Libya & Yemen): I. J. Bahadur Singh. Address: Embassy of India, 5, El Sharia E, Maahad El Swissri, Zamalak, P.O. Box 718, Cairo.

UNITED STATES OF AMERICA: Ambassador: L. K. Jha. Address: Embassy of India, 2107 Massachusetts Avenue, N. W. Washington 8, D. C.

UPPER VOLTA: Ambassador (also Ambassador to Senegal, Mauritania and Ivory Coast & High Commissioner to Gambia): Hari Krishna Singh. Resident in Dakar.

URUGUAY: Ambassador (also Ambassador to Argentina and Paraguay): B. K. Sanyal. Resident in Buenos Aires.

U.S.S.R.: Ambassador (concurrently accredited as Ambassador to Mongolia): D. P. Dhar. Address: Embassy of India, Nos. 6 and 8, Ulitsa Obuka, Moscow.

VATICAN: Ambassador (concurrently accredited as Ambassador to Switzerland): M. Azim Hussain. Resident in Berne.

VENEZUELA: Ambassador (concurrently accredited as Ambassador to Brazil & Bolivia): Prithi Singh. Resident in Rio de Janeiro.

YEMEN: Ambassador (also Ambassador to U.A.R. and Libya): I. J. Bahadur Singh. Resident in Cairo.

YUGOSLAVIA: Ambassador (concurrently accredited as Ambassador to Greece): Rikhi Jaipal. Address: Embassy of India, Proleter Skeh Brigada 9, Belgrade.

#### HIGH COMMISSIONS

AUSTRALIA: High Commissioner: A. M. Thomas. Address: 92, Mugga Way, Red Hill, Canberra. Dy. High Commissioner, G. Raj (Caltex House, 10th Floor, 167-187 Kent St., Sydney).

CANADA: High Commissioner: A. B. Bhadkamkar. Address: 200, McLaren Street, Ottawa 4.

CEYLON: High Commissioner: Y. K. Puri.† Address: 7, Kollupitiya Station Road, Colombo-3. Asstt. High Commissioner, P. P. Iyer (72, Peradeniya Road, Kandy).

CYPRUS: High Commissioner (also Ambassador to Lebanon): A. K. Dar. Resident in Beirut.

GAMBIA: High Commissioner (also Ambassador to Senegal, Ivory Coast, Mauritania & Upper Volta): Hari Krishna Singh. Resident in Dakar.

GHANA: High Commissioner (also Ambassador to Liberia and High Commissioner to Sierra Leone): A. S. Mehta. Address: P. Box 3040, Accra.

GUYANA: High Commissioner: D. Hejmadi. Address: 78, Church Street, George Town.

JAMAICA: High Commissioner (also High Commissioner to Trinidad & Tobago & Consul-General to Surinam): L. N. Ray. Resident in Port of Spain.

KENYA: High Commissioner: Gurbachan Singh. Address: Jeevan Bharati Bldg., Harambee Avenue, Nairobi.

MALAWI: High Commissioner: M. M. Khurana. Address: High Commission of India, P. Box No. 398, Blantyre.

MALAYSIA: High Commissioner: K. Chandrasekharan Nair. Address: P. Box No. 59, 19, Malacca St., Kuala Lumpur.

MALTA: High Commissioner (concurrently Ambassador to Italy): J. K. Atal. Resident in Rome.

MAURITIUS: High Commissioner: D. S. Kamtekar. Address: Fere Felix de Valois Street, Port Louis, Mauritius.

NEW ZEALAND: High Commissioner: P. S. Naskar. Address: 49, Willis Street, Wellington. Station: Wellington.

NIGERIA: High Commissioner (also Ambassador to Cameroun, Dahomey and Togo Republics): S. G. Ramachandran. Address: Private Mail Bag 2322, Lagos, Nigeria.

PAKISTAN: High Commissioner: B. K. Acharya. Address: High Commission of India, 482-F, Sector G-6/4, Islamabad. Dy. High Commissioner, S. E. Joshi (Ag.), India House, 3, Bonus Road, Karachi. Dy. High Commissioner: P. K. Guha. Address: 6/3, Topkhana Road, Dacca 2.

SIERRA LEONE: High Commissioner (also High Commissioner to Ghana and Ambassador to Liberia): A. S. Mehta. Resident in Accra.

SINGAPORE: High Commissioner: Prem Bhatia. Address: India House, 31, Grange Road, Singapore.

TANZANIA: High Commissioner: V. C. Vijaya Raghavan. Address: 28, Independence Avenue, Dar-es-Salaam.

TRINIDAD & TOBAGO: High Commissioner (concurrently accredited as High Commissioner to Jamaica, Barbados, Antigua, Grenada, Dominica, St. Kitts, St. Lucia, St. Vincent, Anguilla, and as Consul-General to Surinam): L. N. Ray. Address: P. Box No. 530, Port of Spain (Trinidad).

UGANDA: High Commissioner (also Ambassador to the Kingdom of Burundi & Republic of Rwanda): R. R. Sinha. Address: Bank of India Bldg., Kampala Road, Kampala.

UNITED KINGDOM: High Commissioner: A. B. Pant, Deputy High Commissioner: P. N. Kaul. Address: India House, Aldwych, London, W.C. 2.

ZAMBIA: High Commissioner: J. C. Kakar. Address: High Commission of India, P.O. Box 2111, Lusaka.

#### SPECIAL MISSIONS

BHUTAN: Political Officer (also Political Officer in Sikkim): K. S. Bajpai, Address: Resident in Gangtok.

SIKKIM: Political Officer in Sikkim (also Political Officer in Bhutan): K. S. Bajpai. Address: Gangtok via Siliguri (West Bengal).

(a) VIETNAM (South): Chairman, I.C.S.C. and Leader of Indian Delegation: S. K. Bhutani. Address: International Commission for Supervision and Control in Indo-China, Saigon.

(b) LAOS: Chairman, I.C.S.C. and Leader of Indian Delegation: Dharam Deva. Address: International Commission for Supervision and Control in Indo-China, Vientiane.

UNITED NATIONS: Permanent Representative of Government of India at the United Nations Headquarters (with rank of Ambassador): Samarendra Sen. Address: Permanent Mission of India to the United Nations, New India House, 3-East 64th Street, New York. Station: New York.

<sup>†</sup> Also Ambassador to Maldives.

#### COMMISSIONS

FIJI: \*Commissioner of the Government of India: A. P. Venkateswaran. Address: G.P.O. Box 405, Nina Street, Suva.

HONG KONG: Commissioner for the Government of India: V. Siddharthachary. Address: Tower Court, 11th Floor, Hysan Avenue, Hong Kong.

#### CONSULATES-GENERAL & CONSULATES

ATHENS: Consul: L. E. Vafiadias. Address: Consulate of India, 1, Valaoritou St.

BARCELONA (SPAIN): Consul: Louis Valeriano Gonzalez. Address: Consulate of India, Barcelona.

BASRAH (Iraq): Consul: M. L. Puri.

BERLIN: Consul-General: P. Johari. Address: Consulate-General of India, Joachimstaler Strasse, 28 (First Floor), Berlin 15.

CANARY ISLANDS: Consul; C. Boolchand. Address: Consulate of India, Las Palmas.

COMORES: Consul-General (also Ambassador to Malagasy Republio): Vacant. Resident in Tananarive.

COPENHAGEN: Consul-General for India: Victor B. Strand. Address: 36, Kronprinsessegade 36, Copenhagen.

FRANKFURT: Consul-General (Consular jurisdiction includes the State of Hessen, and Saarland): Suresh Kumar. Address: Consulate-General of India, Wilhelm-Leuschner Strasse, 93 (2nd floor), Frankfurt.

FRENCH SOMALILAND: Consul: S. J. Kothari. Address: Consulate of India, Djibouti.

GENEVA: Consul-General (concurrently accredited as Permanent Representative to the Permanent Mission of India to the U.N. Office in Geneva): N. Krishnan. Address: Consulate-General of India, Place Edesaux-Vives, Geneva.

GENOA (Italy): Consul: Jack Clerici. Address: Consulate of India.

GHENT (Belgium): Consul-General, Robert Desprechins. Address: Consulate-General of India.

HAMBURG: Consul-General: Mohinder Singh. Address: 14, Burchardstrasse, Sprinkenhof, 2000 Hamburg 1. Consular jurisdiction includes the States of Hamburg, Bremen, Schleswig Holstein and Lower-Saxony.

HAWAII (Honolulu): Consul: Mrs. J. Watumull. Address: Consulate of India, 2227-A, Kalakava Avenue, Honolulu.

JALALABAD (Afghanistan): Consul for India: M. L. Chowdhry. Address: Consulate of India, Jalalabad.

KANDAHAR (Afghanistan): Consul for India: R. S. Singh. Address: Consulate of India, Kandahar.

KOBE: Consul-General: R. B. Ghatge. Address: Consulate-General of India, 94, Kitano-Cho, 2-Chome, Ikuta-Ku.

KHORRAMSHAHR: Consul: R. N. Joshi. Address: Consulate of India, Khorramshahr.

KOREA (Democratic People's Republic of): Consul-General: A. W. B. Vaz. Address: Consulate-General of India, Pyong Yong.

KOREA (Republic of): Consul-General: S. J. S. Chhatwal. Address: Consulate-General of India, 4th floor, Sam Bo Bldg., No. 157-1 Sae-Jong Ro, Chongro-Ku, Seoul.

MANDALAY: Consul: G. R. Iyengar. Address: Consulate of India.

MEDAN: Consul: D. S. Khosla. Address: Consulate of India, 19, Dj, Uskup Agung A. Sugiopranoto, Medan (Indonesia).

MONTEVIDEO (Uruguay): Consul: Adolfo Vegeh. Address: Consulate of India, Plaza Zabala 324, Montevido.

MUNICH: Consul-General: P. H. Von Mitter-Wallner. Address: Consulate-General of India, 27, Residenzate Strasse, Munich 2.

MUSCAT : Consul-General : M. L. Suri.

NEW YORK: Consul-General for India: V. K. Ahuja. Address: Consulate-General of India, 3-East, 64th Street, New York. N.Y. 10021. (Also Ambassador to Costa Rica).

ODESSA (U.S.S.R.): Consul: M. K. Roy. Address: Consulate of India, 31, Kirov Street.

OHIO (Cleveland): Consul: Col. George P. Bickford. Address: Consulate of India, 1144, Union Commerce Bldg., Cleveland.

PANAMA: Consul: I. S. Randhawa. Address: Consulate of India.

SAN FRANCISCO: Consul-General for India: Vacant. Address: Consulate-General of India, 215, Market Street, San Francisco 5.

SAN MARINO (Republic of): Consul-General: C. Das Gupta. Resident in Rome (Indian Embassy).

STUTTGART: Hon. Consul-General: Dr. R. Kissel. Address: Consulate-General of India, 17, Charlottenplatz.

SURINAM: Consul-General (also High Commissioner to Trinidad and Tobago and Jamaica): L. N. Ray. Resident in Port of Spain. (Consulate-General of India, Paramaribo).

VIET NAM (Democratic Republic of): Consul-General: Dr. K. S. Shelvankar. Address: 58, Tran Hung Dao, Hanoi.

VIET NAM (South): Consul-General: Shiam Sunder Nath. Address: Consulate-General of India, Duong Tu-Do, Saigon.

#### VICE-CONSULATES

ZAHIDAN: Vice-Consul for India: Raghubir Saran. Address: Vice-Consulate of India, Zahidan, East Iran, via Tehran.

<sup>\*</sup> Jurisdiction extends to the UN Trust Territory of Caroline and Marshal Islands; Nauru; Solomon Islands; New Hebrides; Gilbert and Elice Islands; Tonga Islands; New Caledonia; and Society Islands.

# INDIAN TRADE COMMISSIONS ABROAD

#### **EUROPE**

U.K. and IRELAND: Minister (Economic): High Commission of India in U.K., Aldwych, London, W.C. 2.

FRANCE: First Secretary (Commercial): Embassy of India, 15, Rue Alfred Dehondency, Paris 16.

ITALY: First Secretary (Commercial): Embassy of India, via Francesco, Denze 36, Rome.

EAST GERMANY: Trade Representative, R. Ranganathan, East Berlin (G.D.R.).

WEST GERMANY: Counsellor (Com.): Embassy of India, 262, Adenaurallee, Bonn.

STATE OF HAMBURG, BREMEN AND SCHELES-WIG HOLSTEIN: Consul-General of India: 14, Burchardstrasse, Sprinkenhof, Hamburg.

STATE OF HASSE: Consul-General of India: Wilhelm-Leuschner-Strasse 93 (2nd floor), Frankfurt.

BELGIUM: First Secretary (Com.): Embassy of India, 121, Avenue Moliere, Brussels 18.

SWEDEN: First Secretary (Com.): Embassy of India, Vastra Tradgardsgetan, 15, Stockholm.

CZECHOSLOVAKIA: Third Secretary (Com.): Embassy of India, Valdstejnska, 6, Mala Strana, Prague 1.

SWITZERLAND: Second Secretary (Com.): Embassy of India, 20, Kalcheggweg, 3000, Berne.

YUGOSLAVIA and GREECE: First Secretary (Com.): Embassy of India, Prolelerskeh, Brigode 9, Belgrade.

U.S.S.R.: Counsellor (Com.): Embassy of India, 6 & 8, Ulitsa Obuka, Moscow.

POLAND: First Secretary (Com.): Embassy of India, No. 16, Niegolew-Skiego, Warsaw.

RUMANIA: Second Secretary (Commercial): Embassy of India, 41, Aleea Alexandru, Bucharest.

HUNGARY: Second Secretary (Commercial): Embassy of India, Buzavirag Utca, Budapest 11.

## UNITED STATES OF AMERICA

U.S.A.: First Secretary (Commercial): Embassy of India, 2107 Massachusetts Avenue, N. W. Washington 8 D.C.

Consul: Consulate General of India, 215, Market Street, San Francisco 5.

First Secretary (Commercial): Consulate-General of India, 3, East 64th Street, New York, N.Y. 10021.

#### CANADA

CANADA: Second Secretary (Commercial): High Commission of India, 200, Maclaren Street, Ottawa-4.

BRITISH COLUMBIA: Indian Trade Commissioner: 924, Standard Building, W-Hastings Street, Vancouver-B.C.

# AUSTRALIA AND NEW ZEALAND

AUSTRALIA: Indian Trade Commissioner: Caltex House, 10th Floor, 167-87, Kent Street, Sydney.

NEW ZEALAND: High Commission of India: 49, Willis Street, Wellington (New Zealand).

## **AFRICA**

NIGERIA, CAMEROUN, TOGO, DAHOMEY and NIGER: First Secretary: High Commission of India, Private Mail Bag 2322, Lagos, Nigeria.

U.A.R. and LIBYA: Counsellor (Commercial): Embassy of India, Post Box No. 718, Cairo.

KENYA and ZANZIBAR: First Secretary (Commercial): High Commission for India, Harambee Avenue, Jeevan Bharti, P. Box No. 30074, Nairobi (Kenya).

TANZANIA: Third Secretary (Commercial): High Commission for India, 2, Inglis Street, Box No. 2684, Noor Manzil, Dar-es-Salaam (Tanzania).

ALGERIA: First Secretary (Commercial): Embassy of India, 119-ter Rue Didouche Maurad, Algiers.

SENEGAL: First Secretary (Commercial): Embassy of India, Dakar.

MOROCCO: Third Secretary (Commercial): Embassy of India, 11, Rue Descartes, Rabat, Morocco.

SUDAN: First Secretary (Commercial): Embassy of India, Post No. 707, Khartoum.

ETHIOPIA: First Secretary (Commercial): Embassy of India, Post No. 528, Addis Ababa.

TUNISIA: First Secretary (Commercial): Embassy of India, No. 6, Bis Rue Massena, Tunis.

GHANA, LIBERIA and SIERRA LEONE: First Secretary (Commercial): High Commission of India, P. Box No. 3040, Accra.

UGANDA: Commercial Attache: High Commission of India, Bank of India Bldg., Kampala Road, Kampala.

JORDAN: First Secretary (Commercial/C.D.A.): Embassy of India, Amman.

## ASIA

JAPAN: First Secretary (Commercial): Embassy of India, 11-90, No. 2-Chome, Kudan, Minami, Chiyoda-Ku, Tokyo.

CEYLON: First Secretary (Commercial): Nadaraja Building, Kollupitiya Station Road, Colombo-3.

BURMA: Second Secretary (Commercial): Embassy of India, Oriental Assurance Buildings, 547-47, Merchant Street, P.O. Box 751, Rangoon.

PAKISTAN: Second Secretary (Commercial): High Commission of India, India House, 3, Bonus Road, Karachi.

EAST PAKISTAN: Second Secretary (Commercial): Deputy High Commission, 6/3, Topkhana Road, Dacca.

THAILAND: First Secretary (Commercial): Embassy of India, 139, Pan Road, Bangkok.

SAUDI ARABIA: Second Secretary (Commercial): Embassy of India, Sulaimiman-al-Turkey House, Al-Sharafia, Boghdadia, Jeddah.

IRAQ: Second Secretary (Commercial): Embassy of India, 22/12A1, Tahari Street, Waziriah, Baghdad.

SYRIAN ARAB REPUBLIC: Second Secretary (Commercial): Embassy of India, Yusin Yovainatti Bldg., Adnan Malka Avenue, Damascus.

LEBANON, JORDAN and CYPRUS: First Secretary (Commercial): Embassy of India, 31, Kantari Street, Beirut.

N.B.—In places where there are no Commercial Representative, our Diplomatic and Consular Officers look after India's trade interests.

INDONESIA: Second Secretary (Commercial): Embassy of India, P. Box No. 118-44, Kebon Serih, Djakarta.

PHILIPPINES: Second Secretary (Commercial): Embassy of India, 1856, B. Bocobo Street, Malate, Manila.

ADEN: Embassy of India, Steamer Point, Aden.

BAHRAIN: Government of India Trade Agency, Indian Display Centre, Government Road, Manama, Bahrain. DUBAI: Indian Trade Agency, Post Box 737, Dubai.

IRAN: First Secretary (Commercial): Embassy of India, 3589/7 Avenue Saba Shomali, Teheran.

HONG KONG: First Secretary (Commercial): Commission for India, Tower-Court, 11th Floor (Near Sunning House), Hysan Avenue, Hong Kong.

CAMBODIA: Second Secretary: Embassy of India, Phnom Penh.

SOUTH KOREA, Consulate-General of India, Seoul.

# FOREIGN DIPLOMATIC REPRESENTATIVES IN INDIA

**EMBASSIES** 

AFGHANISTAN: Ambassador: Dr. Abdul Hakim Tabibi, Address: 9-A, Ring Road, Lajapatnagar III, New Delhi 24.

ALGERIA: Ambassador: Ali Lakhdari. Address: 13, Sundar Nagar, New Delhi 11.

ARGENTINA: Ambassador: Vacant. Address: C-27/28, South Extension Part II, New Delhi 49.

AUSTRIA: Ambassador: Dr. Johanna Nestor. Address: 3A, Nyaya Marg, Diplomatic Enclave, New Delhi 21.

BELGIUM: Ambassador: Charles Kerremans. Address: 7, Golf Links, New Delhi 3.

BRAZIL: Ambassador: Wladimir De Amaral Murtinho. Address: 8, Aurangzeb Road, New Delhi 11.

BULGARIA: Ambassador: Nayden P. Belchev. Address: 198, Golf Links Area, New Delhi 3.

BURMA: Ambassador: U Hla Maw. Address: Burma House, 3/50-F, Shantipath, Chanakyapuri, New Delhi 21.

CAMBODIA: Ambassador: Nong Kimny. Address: 25, Golf Links, New Delhi 3.

CHILE: Ambassador: Julio Barrenechea P. Address: C108, New Delhi South Extn. Part II, New Delhi 16.

CHINA: Ambassador: Vacant, Address: 50-D, Shanti Path, Chanakyapuri, New Delhi 21.

COLOMBIA: Ambassador: Vacant. Address: 22, Jor Bagh, New Delhi 3.

CONGO (Democratic Republic of): Ambassador: Martin Fortune Ipoto. Address: 5, Golf Links, New Delhi 3.

CUBA: Ambassador: Vacant. Address: 56, Ring Road, Lajpatnagar-III, New Delhi 24.

CZECHOSLOVAKIA: Ambassador: Richard DVORAK. Address: 25, Aurangzeb Road, New Delhi.

DENMARK: Ambassador: Hans Adolf Biering. Address: 6, Golf Links Area, New Delhi 3.

ETHIOPIA: Ambassador: Vacant. Address: 29, Prithviraj Road, New Delhi 11.

FINLAND: Ambassador: Wilhelm Schreck. Address: 42, Golf Links, New Delhi 3.

FRANCE: Ambassador: Count Jean Vyau de Legarde. Address: 2, Aurangzeb Road, New Delhi 11.

GERMANY, FEDERAL REPUBLIC OF: Ambassador: Guenter Diehl. Address: No. 6, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 21.

GREECE: Ambassador: John Yannakakis. Address: 188, Jor Bagh, P. Box 3058, New Delhi 3.

HOLY SEE: Apostolic Pronuncio: The Most Rev. Joseph Marie Lemieux. Address: Niti Marg, Chanakyapuri, New Delhi 21.

HUNGARY: Ambassador: Dr. Peter Kos. Address: 15, Jor Bagh, New Delhi 3.

INDONESIA: Ambassador: Mohammad Razif. Address: 50-A, Chanakyapuri, New Delhi 21.

IRAN: Ambassador: Mohammed Reza Amirteymour. Address: 37, Golf Links, New Delhi 3.

IRAQ: Ambassador: Al-Saeed K. Al-Hindawi. Address: 33, Golf Links, New Delhi 3.

IRELAND: Ambassador: Valentin Iremonger. Address: 13, Jor Bagh, New Delhi 3.

ITALY: Ambassador: Dr. Maurizio de Strobel di Fratta e Campocigno. Address: 7, Jor Bagh, New Delhi, 3.

JAPAN: Ambassador: Atsushi Uyama. Address: Plot Nos. 4 & 5, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 11.

JORDAN: Ambassador: Vacant. Address: 120, Malcha Marg, Chanakyapuri, New Delhi 21.

KUWAIT: Ambassador: Issa A. Al-Essa. Address 1 19, Friend Colony West, New Delhi 14.

LAOS: Ambassador: Vacant. Address: 4, Circular Road, Chanakyapuri, New Delhi 21.

LEBANON: Ambassador: Mchammed Fathalla. Address: 3, Panch Sheel Marg, Chanakyapuri, New Delhi 21.

MEXICO: Ambassador: Carlos Gutierrez-Macias. Address: 136, Golf Links, New Delhi 3.

MONGOLIAN PEOPLE'S REPUBLIC: Ambassador: Tsevengombyn Demiddavag. Address: 34, Golf Links, New Delhi 3.

MOROCCO: Ambassador: Abdallah Lamrani. Address: 199, Jor Bagh, New Delhi 3.

NEPAL: Ambassador: Bhim Bahadur Pandey. Address: Barakhamba Road, New Delhi 1.

NETHERLANDS: Ambassador: A. F. Calkoen. Address: 6/50F, Shanti Path, Chanakyapuri, New Delhi 11.

NORWAY: Ambassador: Haakon Nord. Address: Kautilya Marg, Chanakyapuri, New Delhi 21.

PERU: Ambassador: Eduardo Sarmiento C. Address: D-290, Defence Colony, New Delhi 3.

PHILIPPINES: Ambassador: Leon Ma. Guerrero. Address: 50-N, Nyaya Marg, Chanakyapuri, New Delbi 21.

POLAND: Ambassador: Romuald Spasowski. Address: 22, Golf Links, New Delhi 3.

RUMANIA, SOCIALIST REPUBLIC OF: Ambassador: Petre Tanasie. Address: 48, Golf Links, New Delhi 3.

SAUDI ARABIA: Ambassador: Shaikh Anas Youssef Yassin. Address: 1, Eastern Avenue, Maharani Bagh, New Delhi 14. SOUTHERN YEMEN: Ambassador: Vacant. Address: B-59, Greater Kailash-I, New Delhi 48.

SPAIN: Ambassador: Guillermo Nadal. Address: 12, Prithviraj Road, New Delhi 11.

SUDAN: Ambassador: Hassaon Mohammed El-Amin. Address: 6, Jor Bagh, New Delhi 3.

SWEDEN: Ambassador: Prof. Gunnar Heckscher. Address: Nyaya Marg, Chanakyapuri, New Delhi 11.

SWITZERLAND: Ambassador: Dr. August R. Lindt. Address: Nyaya Marg, Chanakyapuri, New Delhi 21.

SYRIAN ARAB REPUBLIC: Ambassador: Mouham-mad Al-Kassar. Address: 10, Panch Sheel Marg, Chanakyapuri, New Delhi 21.

THAILAND : Ambassador : Prem Purachatra. Address : 56-N, Nyaya Marg, Chanakyapuri, New Delhi 21.

TURKEY: Ambassador: Mahmut Dikerdem. Address: No. 27, Jor Bagh, New Delhi 3.

UNION OF SOVIET SOCIALIST REPUBLICS: Ambassador: Nikolai M. Pegov. Address: Shanti Path, Chanakyapuri, New Delhi 21.

UNITED ARAB REPUBLIC: Ambassador: Mohamed Amin Helmy II. Address: 55, Sunder Nagar, New Delhi 11.

UNITED STATES OF AMERICA: Ambassador: Kenneth B. Keating. Address: Shanti Path, Chanakyapuri, New Delhi 21.

URUGUAY: Charge d'Affaires: José D. Lissidini. Address: D-138, Defence Colony, New Delhi 3.

VENEZUELA: Ambassador: Dr. Pedro Abreu. Address: 145, Golf Links, New Delhi 3.

YUGOSLAVIA: Ambassador: Dr. Slavko Komar. Address: 3/50G, Niti Marg, Chanakyapuri, New Delhi 21.

#### **HIGH COMMISSIONS**

AUSTRALIA: High Commissioner: Patrick Shaw. Address: 1/50G, Shanti Path, Chanakyapuri, New Delhi 11.

BRITAIN: High Commissioner: The Rt. Hon. Sir Morrice James. Address: Shanti Path, Chanakyapuri, New Delhi 21.

Deputy High Commissioner: Vacant. Address: 1, Hochi Minh Sarani, Calcutta 16.

Deputy High Commissioner: M. H. G. Rogers. Address: Mercantile Bank Building, Mahatma Gandhi Road, Bombay 1.

Deputy High Commissioner: V. C. Martin. Address: Local Library Authority Bldg., 150-A, Mount Road, Madras 2.

CANADA: High Commissioner: James George, Address: Chancery: 4, Aurangzeb Road, New Delhi 11; Information & Commercial: 13, Golf Links, New Delhi 3; Film Library: 194, Golf Links, New Delhi 3.

CEYLON: High Commissioner: Vacant. Address: 27, Kautilya Marg, Chanakyapuri, New Delhi 21.

GHANA: High Commissioner: B. K. Owusu-Ansah. Address: 2, Golf Links, New Delhi 3.

KENYA: High Commissioner: Leo P. Odero. Address: 41, Golf Links, New Delhi 3.

MALAYSIA: High Commissioner: Raja Aznam bin Raja Haji Ahmad. Address: 3, Link Road, Jangpura, New Delhi 14.

Asst. High Commissioner: G. K. Alfred Kumaraseri. Address: 110/1, Mount Road, Teynampet, Madras.

MAURITIUS: High Commissioner: Rabindrah Ghurburrun. Address: B/10, Malcha Marg, Chanakyapuri, New Delhi 21.

NEW ZEALAND: High Commissioner: B. S. Lendrum. Address: 39, Golf Links, New Delhi 3.

 ${\tt NIGERIA: High\ Commissioner: John\ Ndubeze\ Ukegbu.}$   $Address: 169/170, \, {\tt Jor\ Bagh,\ New\ Delhi\ 3.}$ 

PAKISTAN: High Commissioner: Sajjad Hyder. Address: 2-50-G, Shanti Path, Chanakyapuri, New Delhi 21.

Deputy High Commissioner: A. F. M. Abul Fateh. Address: 9, Circus Avenue, Calcutta 5.

Asstt. High Commissioner: Abdul Ahsan. Address: Hotel Natraj, Marine Drive, Bombay 20.

SINGAPORE: High Commissioner: P. Coomaraswamy. Address: 16, Ring Road, Lajpatnagar IV, New Delhi 24.

TANZANIA: High Commissioner: Sebastian Chale. Address: E-106, 'Hill View', Greater Kailash, New Delhi 48.

TRINIDAD & TOBAGO: *High Commissioner*: Ashford Sinanan. *Address*: Suite 203, Claridges Hotel, New Delhi 11.

UGANDA: High Commissioner: Vacant. Address: 11, Golf Links, New Delhi 3.

## CONSULAR OFFICES

AFGHANISTAN: Consul-General: Abdul Kayoum Azizi. Address: 115, Walkeshwar Road, Bombay 6.

AUSTRIA: Hon. Consul: Dr. Walter Konrad. Address: "The Beacon", Foreshore Road, Bombay 1.

BELGIUM: Vice-Consul-in-Charge: Th. De Greeff. Address: "Morena", 11, Carmichael Road, Cumballa Hill, Bombay 26.

Vice-Consul-in-Charge: Andre Haeck. Address: 6, Camac Street, Calcutta 17.

Consul (Honorary): M. Nevens. Address: 1-E, Spurtank Road, Chetput, Madras 31.

BOLIVIA: Hon. Consul-General: J. K. Gora. Address: 7, Wellesley Palace, Calcutta 1.

BRAZIL: Honorary Consul: J. R. Antonio Viegas. Address: 8/6, Alipore Park Road, Calcutta 27.

BURMA: Consul-General: Daw Kin Mae Wynn. Address: 46/C, Chowringhee Road, Calcutta 16.

Vice-Consul: U Ba Htay. Address: 3, Murray Gate Road, Teynampet, Madras 18.

COSTA RICA: Consul-General: I. A. Makani: Address: Standard Bldg., 346, Dadabhoy Naoroji Road, Bombay 1.

Vice-Consul: Roy E. Chambers. Address: 6-A, Waddels Road, Madras 10.

CZECHOSLOVAKIA: Consul-General: Jaroslav Cisar. Address: "Marcopia", 5, Pedder Road, Cumballa Hill, Bombay 26.

Consul-General: Jaroslav Kafka. Address: 127, Southern Avenue, Calcutta 29.

DENMARK: Hon. Consul-General: E. B. Mogensen. Address: Eros Cinema Building, 124-D, Maharshi Karve Road, Bombay 20.

Hon. Consul: J. Svane-Christensen. Address: 18-G, Park Street, Calcutta 16.

Hon. Consul: S. Larsen (Ag.). Address: 8, Montieth Lane, Egmore, Madras 8.

DOMINICAN REPUBLIC: Consul-General (Hon.): H. H. Ismail. Address: 208, D. Wachha Road, Mistry Court, Opp. C.C.I., Bombay 20.

ECUADOR: Consul: Kalyan Sen. Address: 13, Camac Street, Calcutta 17.

In Charge of Consular Affairs, H. H. Ismail, Mistry Court, 208, D. Wachha Road, Bombay 20.

EL SALVADOR: Consul: Karanjaksha Bonerjee. Address: 12, P. K. Tagore Street, Calcutta 6.

In Charge of Consular Affairs, H. H. Ismail, Mistry Court, 208, D. Wachha Road, Bombay 20.

ETHIOPIA: Hon. Consul-General: Ismail M. Kanga, Address: Crescent Chambers, Tamarind Lane, Fort, Bombay.

FINLAND: Hon. Consul: Vacant. Address: Chartered Bank Building, Post Box No. 73, Mahatma Gandhi Road, Bombay 1.

Hon. Consul: S. R. Stephens. Address: P. O. Box 209, 2, Netaji Subhas Road, Calcutta.

FRANCE: Consul-General: Mejid Kebaili. Address: Vulcan Insurance Building, 5th Floor, Churchgate Reclamation, Bombay 20.

Consul-General: Henri Beffeyte. Address: 26, Park Mansion, Park Street, Calcutta 16.

Consul-General: Henri Durieux. Address: 2, Rue de la Marine, Pondicherry.

Consular Agent: Christian Revel. Address: 6/75, Calvethy Road, Cochin-1.

GERMANY (Federal Republic): Consul-General: Dr. Otto Soltmann. Address: Dugal House, 5th Floor, Road No. 3, Backbay Reclamation, Bombay 20.

Consul-General: Dr. Ruprecht Rauch. Address: Ilaco House, 1/3, Brabourne Road, Calcutta 1.

Consul-General: Vacant. Address: Mico Bldg., 14, Commander-In-Chief Road, Egmore, Madras 8.

GREECE: Consul-General: A. D. Mango. Address: Ralli House, 21, Ravelin St., Bombay 1.

Consul-General: J. K. Gora. Address: Wellesley House, 7, Wellesley Place, Calcutta.

HAITI: Hon. Consul: Murari Churn Law. Address: No. 2, Bidhan Saranee, Calcutta 6.

HONDURAS REPUBLIC: In charge of Consular Affairs: A. R. H. Ismail. Address: Mistry Court, 208, D. Wachha Road, Bombay 20.

INDONESIA: Consul: R. Daroman. Address: 17, Altamount Road, Cumballa Hill, Bombay 26.

IRAN: Consul-General: Abbas Nadjm. Address: Baldota Bhavan, 117, Maharshi Karve Road, Bombay 20

IRAQ: Consul-General: Hammad Al-Hardan. Address: "Panorama", 203, Walkeshwar Road, Bombay 6.

ISRAEL: Consul: Yaacov Morris. Address: 50, Pedder Road, Cumballa Hill, Bombay 26.

ITALY: Consul-General: Dr. Giovanni D'Aloja. Address: 3, Raja Santosh Road, Alipore, Calcutta 27.

Consul-General: Dr. Domenico Arpea. Address: Vaswani Mansion, Dinshaw Wachha Road, Bombay 20.

JAPAN: Consul-General: I. Katakami. Address: 12, Pretoria Street, Calcutta 16.

Consul-General: T. Hitomi. Address: Kashmir House, 19, L. D. Ruparel Marg, Malabar Hill, Bombay 6.

Consul-General: M. Tsuchiya. Address: No. 20, Nungumbakkam High Road, Madras 34.

JORDAN: Consul: Fakirmohamed K. Mistry. Address: Mistry Court, Dinshaw Vachha Road, Bombay-20.

KOREA (Democratic People's Republic of): Consul-General: Pak Ri Hyun. Address: 11, Barakhamba Road, New Delhi 1.

KOREA (Republic of): Consul-General: Dr. Woonsang Choi. Address: 5, Mansingh Road, New Delhi 11.

KUWAIT: Consul-General: Faisal Essa Yousuf. Address: Vaswani Mansions, Flat No. 2, 120, Dinshaw Vachha Road, Bombay 20.

LEBANON: Consul: Govind R. Hada. Address: 36, Ganesh Ch. Avenue, Calcutta 13.

LIBERIA: Consul-General: P. K. Bonerjee. Address: 7-2-P, Jamir Lane, Calcutta 19.

MONACO: Consul-General (Hony.): R. Chattaram. Address: D-1 Defence Colony, New Delhi 3.

NEPAL: Consul-General: Maj.-Gen. P. S. Lama. Address: 19, Woodlands, Sterndale Road, Alipore, Calcutta 27.

NETHERLANDS: Consul-General: E.E.S. de Jongh. Address: 3rd Floor, "International", 16 Maharshi Karve Road, Bombay-20. P.O. Box 260, Bombay-1.

Consul-General: R. Barendsen. Address: 5 & 7, Netaji Subhas Road, Calcutta 1.

Consul: A. Stewart. Address: Chordia Mansion, 150/A-2, Mount Road, Madras-2.

Consul: S. S. Koder. Address: Princess Street, Fort, Cochin 1.

NICARAGUA: Hon. Consul: J. K. Rege; Hon. Vice-Consul, C. J. Rege. Address: Alice Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

NORWAY: Consul-General: A. Smith-Moyer. Address: Nowroji Mansion, 31, Wodehouse Road, P. Box No. 294, Bombay 1.

Consul: Jorgen Svane-Christensen. Address: 18-G, Park Street, Calcutta 16.

Ag. Consul: Bjarne Aabakken. Address: P. B. No. 1137, Ernakulam. (Cochin).

Consul: R. C. Shearer. Address: Post Box No. 42, Madras.

PANAMA: Consul-General: Pablo Luiz Manzanares. Address: Flat No. B, 8th Floor, "Giri Raj," Altamount Road, Bombay 26.

PERU: Incharge of the Consulate-General: J. R. Antonio Viegas. Address: 8/6, Alipore Road, Calcutta 27.

In-Charge of the Consulate: Jose F. Torres-Muga. Address: Radia House, 6, Rampart Row, Bombay 1.

PHILIPPINES: Hon. Consul-General: K. M. Modi. Address: Liberty Building, 41/42, Marine Lines, Bombay 20.

Hon. Consul-General: K. R. Patel. Address: 10-B, Lall Bazar St., Calcutta 1.

POLAND: Consul: J. Brolski. Address: Manavi Apartment, 36, Ridge Road, Malabar Hill, Bombay 6.

Consul: Z. Tomczyk. Address: 13, Camac Street, Calcutta 16.

SAN MARINO: Consul-General (Hony.): Bhai Mohan Singh. Address: 15-A, Aurangzeb Road, New Delhi 11.

SPAIN: Vice-Consul: Napoleon Fernandez. Address: 'Oceana'', 153, Marine Drive, Bombay 20.

Vice-Consul: Pritindra Nath Ray Chowdury. Address: 10, Old Post Office Street, Calcutta 1.

Vice-Consul: Gilbert Augustine Pais. Address: "Lawdale", 5, Nimmo Road, San Thome, Mylapore, Madras.

SUDAN: Consul-General: Abdel Wahab Tamim. Address: Flat No. 5, Mistry Court, Dinshaw Wachha Road, Bombay 20.

SWEDEN: Consul-General: Akbar Hydari. Address: Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay.

Vice-Consul: A. F. Mody. Address: Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay.

Consul: A. C. Daphtary. Address: 7, Wellesley Place, Calcutta.

Consul: G. Rundberg. Address: 1/155, Mount Road, Madras 2.

SWITZERLAND: Consul-General: O. Rist. Address: Manek Mahal, 90, Veer Nariman Road, Bombay 20.

Consular Agent: R. Nievergelt. Address: C/o. Patel Volkart Ltd., P.O. Box No. 3, Cochin.

SYRIA: Consul-General: Sobhi Elejel. Address: Belha Court, Strand Road, Fort, Bombay 1.

THAILAND: Ag. Consul-General: Yongyudh Indara-prasirt. Address: 18-B, Mandeville Gardens, Ballygunge, Calcutta 19.

TURKEY: Consul-General: Rahim Karim Mistry, J.F. 208, Dinshaw Wachha Road, Bombay 20.

Hon. Consul-General: M. A. A. Kashani, Address: "Nilhat House", 11, Rajendra Nath Mukherjee Road, Calcutta-1.

Hon. Consul-General: M. Mustafa Hussain, J.P. Address: 115, Lloyds Road, Cathedral P.O., Madras 6.

UNITED STATES OF AMERICA: Consul-General: Daniel M. Braddock. Address: "Lincoln House", 78, Bhulabhai Desai Road, Bombay 26.

Consul-General: Herbert Gordon. Address: 5/1, Harrington Street, Calcutta 16.

Consul-General: Thomas M. Recknagel. Address: Mount Road, Madras 6.

U.S.S.R.: Consul-General: N. V. Aksenov, Address: "Palm Beach", 42, Nepean Sea Road, Malabar Hill, Bombay-6.

Consul-General: Vadim A. Zharkov. Address: 31, Shakespeare Saranee, Calcutta 16.

Consul-General: G. I. Kaverin. Address: 3rd Left Street, Rly. Service Commission Road, Madras 6.

VIETNAM (Democratic Republic of): Consul-General: Nguyen Hoa. Address: 62, Golf Links Area, New Delhi 3.

VIETNAM (Republic of): Consul-General: Vacant. Address: 72, Sunder Nagar, New Delhi 11.

YUGOSLAVIA (Federal Socialist Republic of): Consul-General: Dejan Popovic. Address: 120/4, Vaswani Mansion, Dinshaw Wachha Road, Bombay 20.

Consul-General: Stjepan Trampuz. Address: 6, Ballygunge Park Road, Calcutta.

# U. N. & OTHER BODIES IN INDIA

# UNITED NATIONS 21, Kasturba Gandhi Marg, New Delhi

United Nations Development Programme (UNDP)

The United Nations Development Programme, is the world's largest multi-national source of pre-investment assistance and technical co-operation. It makes available to the developing nations the combined knowledge, expertise and experience of the United Nations family of agencies.

Resident Representative : John McDiarmid.

The World Food Programme, a joint organ of the UN and the FAO, aims at economic and social development through aid in the form of food. The resources of the Programme are derived from voluntary contributions in commodities, services and cash pledged by States Members of the United Nations and Members and Associated Members of FAO.

Project Representative, John McDiarmid; Project Officer, Ewart P. Reid.

United Nations Information Centre

The United Nations Information Service maintain a close working relationship with national and local infor-

mation media, educational institutions, governmental information services and non-governmental organisations on matters relating to the dissemination of information about the United Nations and the specialized agencies.

Director: Rudolf Stajduhar.

Office of the United Nations High Commissioner for Refugees (UNHCR) 1, Ring Road, Kilokri, New Delhi.

UNHCR assists the Government of India in the formulation of projects, under the High Commissioner's 1969 Programme, for the settlement of Tibetan refugees in India.

Representative: Frederik L. Pijnacker Hordijk.

#### U. N. CHILDREN'S FUND (UNICEF)

Address:—Regional Office for Afghanistan, Ceylon, India, Maldive Islands, Nepal and Mongolia, UNICEF House, 11, Jorbagh, New Delhi-3.

West India Office: Ravindra Mansion, Dinshaw Wachha Road, Bombay-20. East India Office: 26 Lee Road, Calcutta-20. South India Office: Ex-Legislators' Hostel, Mount Rd., Madras-2.

UNICEF'S primary concern is the strengthening of national services for children and youth in developing countries through long-range programmes e.g., providing equipment for primary health centres, developing rural water supply, improving nutrition through milk plants and applied nutrition projects, and stimulating science education and social services etc.

Director for South Central Asia: Gordon Carter.

# INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT 7, Sardar Patel Marg, New Delhi.

Resident Representative: Orville J. McDiarmid.

# INTERNATIONAL LABOUR OFFICE (AREA OFFICE), MANDI HOUSE, NEW DELHI

Estd. in 1928. It was reorganised, early in 1970, into an Area Office covering India, Ceylon, Nepal and the Maldive Islands. The Area Office maintains contacts and relations with governmental agencies, organisations and institutions in the region and workers' and employers' organisations. It explores the needs for technical assistance and assists in the preparation of projects within the ILO's fields of competency and in their implementation. It collects and disseminates information that is of interest to the region and/or to headquarters and relevant to ILO activities. The office also prospects candidates for ILO assignments abroad. It has a good reference library and undertakes the sale of ILO publications.

Director - Vacant.

United Nations Educational, Scientific and Cultural Organisation: Office of the Chief of Mission in India, and the Field Science Office for South Asia, 40-B, Lodi Estate. New Delhi-3.

Chief of Mission & Director, Field Science Office for South Asia: Dr. Salah El-Din Tewfik.

# FAO of the United Nations 1, Ring Road, Kilokri, New Delhi 14.

FAO Representative in India, Cedric Day.

World Health Organization Regional Office for South-East Asia: World Health House, Indraprastha Estate. Ring Road, New Delhi 1.

Regional Director: Dr. V. T. H. Gunaratne.

# AFRO-ASIAN RURAL RECONSTRUCTION **ORGANIZATION**

C/117-118, Defence Colony, New Delhi-3.

To launch concrete and wherever possible co-ordinated action to reconstruct economy of the rural people of Afro-Asian countries and to revitalize their social and cultural life. Members: Governments of African and Asian countries.

Pres.: Yung Joon Kim (Korea).

# LEAGUE OF ARAB STATES MISSION 27, Sardar Patel Marg, New Delhi-11.

Chief Representative and Head of Mission: Abbas Seif El-Nasr.

# FOREIGN TRADE COMMISSIONS IN INDIA

# **AUSTRALIA**

New Delhi: N. L. Harris, Commercial Counsellor and Trade Commissioner, 1/50 G. Shantipath, Chanakyapuri, New Delhi. P.O. Box 3033. Bombay: K. Sarup, Marketing Officer, Mercantile Bank Building, 52/56 Mahatma Gandhi Rd., Bombay 1, P.O. Box 217. Calcutta: P. C. Narayanan, Marketing Officer, Brooke House, 9, Shakespeare Sarani, Calcutta 16.

#### BRITAIN

Delhi:—J. A. Turpin, C.M.G., Minister (Economic and Commercial). Address: British High Commission, Shantipath, Chanakyapuri, New Delhi-11. Calcutta:— R. G. Marlow, First Secretary (Commercial). Address: 1, Ho Chi Minh Sarani, Calcutta-16. Bombay :- R. L. B. Cornack, First Secretary (Commercial). Address: Mercantile Bank Building, Mahatma Gandhi Road, Fort, Bombay-1. Madras :- A. J. Waple, First Secretary (Commercial). Address: 150-A, Mount Road, Madras 2.

#### CANADA

New Delhi: - Commercial Counsellor. Address: Office of the High Commissioner for Canada, 13, Golf Links, New Delhi 3.

#### CEYLON

Ceylon Govt. Trade Commissioner: Ceylon House, Bruce Street, Fort, Bombay.

# **NEW ZEALAND**

Address: New Zealand High Commission, 39. Golf Links, New Delhi 3.

#### AUSTRIA

Austrian Trade Representative in India: Dr. W. Konrad. Address: The Beacon, Foreshore Road, P.O. Box 1385, Bombay 1. Delhi Office: The Austrian Trade Representative in India, Dr. G. Diezinger, 4A, Bhagwandass Road, New Delhi 1.

#### BULGARIA

Economic & Commercial Counsellor: R. Milev. Address: 50, Golf Links Area, New Delhi 3. Trade Commissioner at Bombay: I. G. Yolov. Address: Flat No. 11, Peacock Palace, 69, Bhulabhai Desai Road, Bombay-26. Trade Commissioner at Calcutta: D. Miluchev. Address: 6-A, Middleton Street, 5th Floor, Calcutta-16.

# CZECHOSLOVAKIA

Economic & Commercial Counsellor & Trade Representative: Valdimir Kirsbaum. Address: 65, Golf Links Area, New Delhi 3. Trade Commissioner: Dr. R. Hlavaty. Address: Kasturi Bldgs., Jamshedji Tata Road, Bombay I.
Trade Commissioner: F. Jurceka. Address: 24-B, Park Street, 4th Floor, Calcutta 16. Trade Commissioner: M. Vachal. Address: 1/J. Nungambakkam High Road, Madras 34.

#### FINLAND

Trade Commissioner: Kare Suuronen. Chartered Bank Building, Mahatma Gandhi Road, P.O. Box 73, Bombay 1.

#### FRANCE

New Delhi: - Commercial Counsellor to the French Embassy, 130, Jor Bagh. Bombay:—Trade Commissioner for France, "Beacon," Foreshore Road, Bombay 1. Calcutta:—Trade Commissioner for France, 13, Park Mansions, Park Street, Calcutta 16.

# GERMAN DEMOCRATIC REPUBLIC

Trade Kepresentation

Head Office: New Delhi, 1, Kautilya Marg, Herbert Fischer, Head of the Trade Representation. Branch Office, Bombay 20: 122, Dinshaw Waccha Road. Vacant, Head of the Regional Trade Representation. Branch Office, Calcutta: 7-B, Middleton Street. Vacant, Head of the Regional Trade Representation. Branch Office, Madras: 1/1, Kodambakkam High Road, Nungambakkam. L. Eichelkraut, Head of the Regional Trade Representative.

# GERMANY (FEDERAL REPUBLIC)

New Delhi: German Embassy — Commercial Section (Commercial Counsellor) No. 6, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 21.

Bombay: Chief Economic Officer: Dugal House, Road No. 3, Backbay Reclamation, Bombay 20.

Calcutta: Chief Economic Officer: Ilaco House, 1/3, Brabourne Road, Calcutta 1.

Madras: Chief Economic Officer: Mico Building, 14 Commander-in-Chief Road, Egmore, Madras 8.

#### HUNGARY

Trade Representation of the Hungarian People's Republic:—

Commercial Counsellor & Trade Representative: J. Hammer, 18, Golf Links Area, New Delhi. Trade Commissioner: L. Gergely, 11-A, Wodehouse Road, Bombay 1. Trade Commissioner: G. Czigany, 6/2, Gurusaday Road, Calcutta-20. Trade Commissioner: Dr. F. Kiska, 9, Wallace Garden, Madras 6.

#### ITALY

Trade Commissioner for Italy: M. Armento, Nirmal, 21st floor, 241-242, Backbay Reclamation, Nariman Point, Bombay 1.

#### **JAPAN**

Consulate-General: Bombay: Kashmir House, L. D. Ruparel Marg, Malabar Hill, Bombay 6. ConsulateGeneral, Calcutta: 12, Pretoria Street, Calcutta 16. Consulate-General: Madras: 20, Nungambakkam High Road, Madras 34.

#### **POLAND**

New Delhi—Commercial Counsellor: St. Mrowczyk, 42/44 Sundar Nagar, New Delhi. Bombay—Consul: J. Brolski, Manavi Apartment, 36 Ridge Road, Malabar Hill, Bombay 6. Calcutta—Consul: Z. Tomczyk, 13, Camao Street, Calcutta 16.

#### **ROMANIA**

Trade Representation of Socialist Republic of Romania in India, Head Office; 61, Golf Links, New Delhi 3. Bombay Office: Steelcrete House, Dinshaw Wachha Road, Bombay 20; Calcutta Office: Nilhat House, 8th Floor, 11, Rajendra Nath Mukherjee Road, Calcutta 1; Madras Office: 30, Haddow's Road, Madras 6.

#### SWEDEN

Office of the Commercial Attaché, Royal Swedish Embassy, Nyaya Marg, Chanakyapuri, New Delhi 11.

#### U.S.A.

Economic Section, Address: American Consulate-General, "Lincoln House," 78, Bhulabhai Desai Road, Bombay 26.

#### U.S.S.R.

Trade Representation of U.S.S.R. in India, Plots Nos. 6 and 7, Block 50-E, Nyaya Marg, Chanakyapuri, New Delhi 21. Calcutta Branch and Calcutta Showrooms of the U.S.S.R. Machinery and Equipment: 1, Bishop Lefroy Road (Large Bldg.), Calcutta 20. Bombay Branch: "Avantika," 46, Pedder Road, Bombay 26. Bombay Showrooms of the U.S.S.R. Machinery and Equipment: Vasundhara House, Bhulabhai Desai Road, Bombay 26. Madras Branch: 50-A, St. Mary's Road, Alwarpet, Madras 18.

#### YUGOSLAVIA

Trade Commissioner, D. M. Peric, Vaswani Mansion, 120/4, Dinshaw Wachha Road, Bombay 20.

Note: In the case of other countries trade matters are being looked after by the respective Embassies, High Commissions and Consulates-General.

# STATES COMMERCIAL FIRMS & CLASSIFIED TRADES

# ANDHRA PRADESH

# HYDERABAD-SECUNDERABAD-COMMERCIAL FIRMS

Allied Industries.—Azamabad, Hyderabad 20.

Aluminium Industries Ltd.—Ramachandrapuram P.O., Hyderabad 32.

Analysers P. Ltd.—18/3, Azamabad, Hyderabad 20.

Andhra Foundry & Machine Co. Ltd.-Shakar Bhavan, 3rd floor, B-1-174, Fateh Maidan Road, Hyderabad 4. Andhra Pradesh Co.—Durga Bhavan, Rashtrapati

Road, Secunderabad 3.

Andhra Pradesh Industrial Development Corporation Ltd.—B-1-174, Fateh Maidan Road, Hyderabad 4.

Andhra Pradesh Paper Mills Ltd.-1-2-33/2, Madhuban, Hyderabad 29.

Andhra Sugars Ltd.—28, Sarojini Devi Road, Secundera-Aryan Industries Pvt. Ltd.—108, Walker Town, Secunder-

abad. Associated Business Corporation.—Raniganj, Secundera-

bad 3.

Associated Engg., Co.—137, Rashtrapati Road, Secunderabad 3.

Associated Glass Industries Ltd.-1-10-63-64, Rockland, Begumpet, Hyderabad 16.

Associated Industrial & Engg. Corpn. Ltd.—F-1-30, Begumpet, Hyderabad 16.

Associated Traders of India. -1-4-924, Bakaram, Hydera-

Automotive Manufacturers Pvt. Ltd.-8571, Rashtrapati Road, Secunderabad 3.

Azam Jahi Mills Ltd .- 5-9-159, Gunfoundry Road, Hyderabad 1.

Bajaj Electricals Ltd.—Public Garden Road, Hyderabad 4. Brothers.—Barman Building, Gunfoundry, Hyderabad 1.

Batliboi & Co. P. Ltd.—Rashtrapati Road, Secunderabad 3. Bharat Heavy Electricals Ltd.—Ramachandrapuram, Hyderabad 32.

Biological Products Ltd.-18/3, Azamabad, Hyderabad 20.

Biological Synthetic Products Ltd.—Sanathnagar, Hyderabad 18.

Brooke Bond India Ltd.—"Ghatkesar Factory", Post Bag No. 6, Secunderabad.

Burmah-Shell Oil Storage and Distributing Co. of India Ltd.—32, Sarojini Devi Road, Secunderabad 3.

Canadian & Continental Steel Agencies.-41, Sarojini Devi Road, Secunderabad 3.

Cement Marketing Co. of India Ltd.-66-A, Rashtrapati Road, Secunderabad 3.

Commercial Industries of India Ltd.—Bulletin Bldg., Secunderabad.

Coromandel Fertilisers Ltd.—126, Sarojini Devi Road, Secunderabad 3.

Dastoor & Sons.—Sarojini Devi Road, Secunderabad 3. Deccan Agencies. -35, Ghasmandy Road, Secunderabad. Deccan Chronicle. 147, Sardar Patel Road, Secunderabad.

Deccan Engineering and Refrigeration Co.-13, Rashtrapati Road, Secunderabad.

Deccan Enterprises Pvt. Ltd.—8573, Rashtrapathi Road, Secunderabad 3.

Deccan Porcelain & Enamel Works Ltd.—2707, Bakaram. Hyderabad.

Decean Tyre Trading Co.—Raniganj, Secunderabad 3.

Dewan Bahadur Ramgopal Mills Ltd.—Tank Bund Road, Post Box No. 1505, Secunderabad 3.

Diesel Corpn. (Secunderabad) Ltd.-148, Rashtrapati Road, Secunderabad 3.

Diesel Spares Corporation.—144, Rashtrapati Road, Secunderabad 3.

Dominion Engineering Corpn.—Rashtrapati Road, Secunderabad 3.

E. I. D. Parry Ltd.-66, Rashtrapati Road, Secunderabad 3.

Electric Construction and Equipment Co. Ltd.—Sanatnagar, Hyderabad 18.

Electric Transformer & Equipment Co.-7-1-60, Dharam Karan Road, Amirpet, Hyderabad 16.

Electronic & Industrial Instruments Co. Pvt. Ltd.-B-17, Industrial Estate, Hyderabad 18.

Electronics Corporation of India Ltd.—Post Bag No. 2 Secunderabad 17.

Electronics Corporation of India Ltd.-3-5-822, Hyderguda, Hyderabad 1.

Electro Porcelain Ltd.-B-1-174, Fateh Maidan Road, Hyderabad 4.

Escorts Ltd.—8/9, Green Gates, Saifabad, Opp. Secretariat, Hyderabad 22.

Eskay Engineering Corporation .- 6, Rashtrapati Road, Secunderabad 3.

Esso Standard Eastern Inc.—2538, Rashtrapati Road, Secunderabad 3.

Foam Rubber Factory Ltd.—C5-C6, Industrial Estate, Hyderabad 2. Frizair Corporation.—B-23, Industrial Estate, Hydera-

bad 18. Gangappa Cables Ltd.—Industrial Development Area,

Uppal, Hyderabad 13. Garlick & Co. Pvt. Ltd.-'Green Gates', 5-9-19/14, Saifabad, Hyderabad 22.

General Electric Co. of India Ltd.—Magnet House, Karbala Maidan, M. Gandhi Road, Secunderabad 3.

General Radio & Appliances Pvt. Ltd.—Rashtrapati Road, Secunderabad 3.

Hindustan Corporation (Hyderabad) Ltd.—Domalguda, Hyderabad 29.

Hindustan Machine Tools Ltd.—Narsapur Road, Hyderabad 37.

Hyderabad Agencies Pvt. Ltd.—Lingapur House, 1st Floor, 3-6-237, Himayatnagar Road, Hyderabad 29.

Hyderabad Allwyn Metal Works Ltd.—Sanatnagar, Hyderabad 18.

Hyderabad Asbestos Cement Products Ltd.—Sanatnagar, Hyderabad 18.

Hyderabad Chemical & Fertilizers Ltd.--3-6-100, Bashirbagh, Hyderabad 29.

Hyderabad Dn. Engineering Co. Pvt. Ltd.— Rashtrapati Road, Secunderabad 3.

Hyderabad Industrial Corporation Pvt. Ltd.—89, Sarojini Devi Road, Secunderabad 3.

Hyderabad Investment Syndicate Ltd.—Sultan Bazar, Hyderabad.

Hyderabad Iron & Steel Works Ltd.—Industrial Area, Azamabad, Hyderabad 20.

Hyderabad Potteries Ltd.—365-A, Bakaram, Hyderabad 20.

Hyderabad Tools Pvt. Ltd.—4-1-920, Dinabad Estate, Tilak Road, Hyderabad 1.

Hyderabad Usha Works.—P.O. Balanagar Township, Hyderabad 37.

Hylam Ltd.—183/184, Rashtrapathi Road, Secunderabad 3.

Indian Commerce & Industries Co. Pvt. Ltd.—10, Padmarao Nagar, Secunderabad 25.

Indian Commercial Co. Pvt. Ltd.—Ginwalla Bldgs., M. Gandhi Road, Secunderabad 3.

Indian Cottage Industries.—5-5-1048, Goshamal Road, Hyderabad 12.

Indian Detonators Ltd.—Kukatpalli, Sanatnagar (I.E.) P.O., Hyderabad 18.

Indian Drugs & Pharmaceuticals Ltd.—Kukatpally, Balanagar Township P.O., Hyderabad 37.

Indian Hume Pipe Co. Ltd.—Post Box No. 1810, Musheerabad, Hyderabad 20.

Indian Oil Corporation Ltd.—126, Sarojini Devi Road, Secunderabad 3.

Indocean Engineers Pvt. Ltd.—6-1-1062/11, Rajbhavan Road, Hyderabad 4.

Indo-Nippon Bearings Pvt. Ltd.—Moula Ali, Hyderabad 40.

Indo-Swing Pvt. Ltd.—A-4, Industrial Estate, Sanatnagar, Hyderabad 18.

Industrial & Agricultural Engineering Co. (Hyderabad) Ltd.—5-10-173, Fateh Maidan Road, Hyderabad 4.

International Agencies.—62, Mahatma Gandhi Road, Secunderabad.

International Equipment Corpn. Pvt. Ltd.—16, Durga Bhavan, Rashtrapati Road, Secunderabad.

International Ore & Fertilizer (India) Pvt. Ltd.—66, Rashtrapati Road, Secunderabad 3.

Jay Engineering Works Ltd.—Balanagar, Hyderabad.
J. C. Pinto & Co.—113/1, Sarojini Devi Road, Secunderabad.

Jubilee Industries Corporation.—F-21, Industrial Estate, Sanatnagar, Hyderabad 18.

Kakali Karshak Industries Pvt. Ltd.—Iftekar Mansion Compound, Musheerabad Road, Hyderabad 20.

Kilburn & Co. Pvt. Ltd.—Market Street, Secunderabad. Kirloskar Bros. Ltd.—338, Rashtrapati Road, Secundera-

bad 3.
Kumar Chemicals & Fertilizers Pvt. Ltd.—A-17, Co-operative Industrial Estate, Balanagar, Hyderabad 37.

Larsen & Toubro Ltd.—5-10-173, Fatch Maidan Road, Hyderabad 4.

L. B. Industries.—21/3, Industrial Area, Azamabad, Hyderabad 20.

Mahalakshmi Glass Works Pvt. Ltd.— 8-4-64, Sanatnagar, Hyderabad 18.

Mineral Dressing & Pulverising Co.—5-3-960/1, Fasihjung Lane, Jawaharlal Nehru Road, Hyderabad 1.

Modern Packaging Corporation.— B-42, Industrial Estate, Sanatnagar, Hyderabad 18.

National Carbon Company.—Moula Ali, Secunderabad 17. National Engineering Co. (Madras) Pvt. Ltd.—1-B, Rashtrapati Road, Secunderabad 3. National Traders Corpn.—40, Sarojini Devi Road, Secunderabad 3.

National Tyre & Rubber Co. of India Ltd.—C-1-559, Old Feelkhana, Hyderabad 1.

Nava Bharat Enterprises Pvt. Ltd.—920, Dinabad Estate, Tilak Road, Hyderabad 1.

Newland Metal Works.—14-2-179, Dhanrajgirji Bala, Sha-I-Nayat Gunj, Hyderabad.

Nizam Sugar Factory Ltd.—Khairatabad, Hyderabad 4. Orgaroma India P. Ltd.—Tolichowki, Hyderabad 8.

Oxygen Equipment & Engineering Co. Pvt. Ltd.— C-37 & 38, Industrial Estate, Sanatnagar, Hyderabad 18.

Polyex Pvt. Ltd.—B-4, Industrial Estate, Moula Ali, Secunderabad 17.

Parry & Co. Ltd.—66, Rashtrapati Road, Secunderabad 3.

Praga Tools Ltd.—6-6-8/32, Kavadiguda Road, Secunderabad 3.

Progressive Packaging Pvt. Ltd.—B-42, Industrial Estate, Sanatnagar, Hyderabad 18.

Radiant Engineering Co. Pvt. Ltd.—B-2, Industrial Estate, Hyderabad 18.

Raja Industries.—Abid Road, Hyderabad.

Republic Forge Co.-Moula Ali, Secunderabad 17.

Shalimar Biscuits Pvt. Ltd.—Uppal Industrial Estate, Hyderabad 13.

Shaw Wallace & Co. Ltd.—Malkajgiri, Secunderabad 17. Shri Krishna Bottlers Pvt. Ltd.—Brindavan, Tank Bund Road, Secunderabad 3.

Shriram Refrigeration Industries Ltd.—P.O. Balanagar Township, Hyderabad 37.

Sifco Ltd.—Sanatnagar, Hyderabad 18.

Singareni Collieries Co. Ltd.—Meher Manzil, Red Hills, Hyderabad 4.

Sirpur Paper Mills Ltd.—'Lingapur House', 3-6-237, Himayatnagar Road, Hyderabad 29.

Sirsilk Ltd.—3-6-237, Himayatnagar Road, Hyderabad 29. South India Animal Guts Export Co.—1-4-882/1, Pakaram, Mushirabad, Hyderabad 20.

South India Commercial Corporation.—85-71, Rashtrapati Road, Secunderabad 3.

Spectra Structurals Pvt. Ltd.—Moula Ali, Secunderabad 16.

Sun-Sip Pvt. Ltd.—Kukatpalli, Hyderabad.

Suryalakshmi Cotton Mills Ltd.—77, M. Gandhi Road, Secunderabad 3.

Swastik Bobbin Mfg. Co. Ltd.—32, Sarojini Devi Road, Secunderabad 3.

Synchrotric Engineering Works.—8091, Rashtrapati Road, Secunderabad 3.

Tata Iron & Steel Co. Ltd.—126, Sarojini Devi Road, Secunderabad 3.

Transport Corporation of India Pvt. Ltd.—1-7-293, M. Gandhi Road, Secunderabad 3.

Tungabhadra Industries Ltd.—108, Walker Town, Secunderabad 25.

U-Foam Pvt. Ltd.—B-15/16, Industrial Estate, Hyderabad 18.

abad 18. United Breweries Ltd.—10-2-289/111, 4th Cross Road,

Shantinagar, Hyderabad 28.
United Engineering Corpn.—147, Rashtrapati Road,
Secunderabad 3.

Universal Trading Agency.—91, Sarojini Devi Road, Secunderabad 3.

Usha Flour & General Mills Ltd.—Kukatpally, Hyderabad

Vel Jan-Hydrair Pvt. Ltd.—Balanagar, Hyderabad 37.

Vin (India) Pvt. Ltd.-2-3-465, Ramagopalpet, Secunderabad 3.

Voltas Ltd.—87/D, Rashtrapati Road, Secunderabad 3.

Warner Hindustan Ltd.-Warangal Road, Uppal. Hyderabad 13.

William Jacks & Co. I. Pvt. Ltd.—165, Chapel Road. Gunfoundry, Hyderabad 1.

# ANDHRA—CLASSIFIED LIST OF TRADES & PROFESSIONS

# AGRICULTURAL MACHINERY AND IMPLEMENTS

Agricultural & General Engineering Works.-1-1-75, Mushirabad Road, Hyderabad.

Agricultural Engg. Co.-4/5, Durga Bhavan, Rashtrapati Road, Secunderabad 3.

Engineering Co.-144, Belde Rashtrapati Road. Secunderabad 3.

Crushic & Co.—Borrugu Mansions, 62, Mahatma Gandhi Road, Secunderabad 1.

Deccan Metal Works.-Mahatma Gandhi Road, Secunderabad 1.

Engineering Sales & Services Corpn.—141, Rashtrapati Road, Secunderabad 3.

Farm Needs & Fertilisers.—3-4-376/11, Basanthnagar, Hyderabad 1.

Gunti & Co. Pvt. Ltd.-128, Mahatma Gandhi Road, Secunderabad 3.

Industrial Stores Co.—11, Durga Bhavan, Rashtrapati Road, Secunderabad 3.

Kakati Karshak Industries Pvt. Ltd.—Iftekar Mansion Compound, Musheerabad Road, Hyderabad 20.

Kayjee Associates.—8570/2, Rashtrapati Road, Secunderabad 3.

Krishi Engines Pvt. Ltd.—A-7, Industrial Estate, Sanat-

nagar, Hyderabad 18. Madan Mohan Metal Industries.—108, Walker Town, Secunderabad.

Patalay Commercial Corporation.—Basheerbagh, Hydera-

Puship Trading Co.—Rashtrapathi Road, Secunderabad 3. Rayvat Commercial Corporation Ltd.—141, Rashtrapati Road, Secunderabad 3.

Secunderabed Agricultural Machinery Co.—130, Rashtrapati Road, Secunderabad 3.

Sri Kusum Haranath Engg. Co.—138, Rashtrapati Road, Secunderabad 3.

Swastik Manufacturers Ltd.—Industrial Area, Azamabad, Hyderabad 20.

Vijaya Foundry.—7-3-703, Rashtrapati Road, Secunderabad 3.

Voltas Ltd.—87/D, Rashtrapathi Road, Secunderabad 3.

# AUTOMOBILES AND AUTOMOBILE PARTS AND **ACCESSORIES**

Allied Mfg. Industries.—C-16, Industrial Estate, Hyderabad 18.

Amar Bharat Automobiles.—Maharani Jhansi Road, Afzul Gunj, Hyderabad.

Arun Automobiles.—103, Sardar Patel Road, Secunderabad.

Asian Automobiles, -Mahatma Gandhi Road, Secunderabad 1.

Asiatic Automobiles.—8569, Mahatma Gandhi Road, Secunderabad 1.

Associated Trades (Deccan).—Kayjee Mansion, 8570/2, Rashtrapati Road, Secunderabad 3.

Auto Chenoy. -62-D, Sarojini Devi Road, Secunderabad 1. Autofin Ltd.—8573, Rashtrapati Road, Secunderabad 3.

Automotive Mfg. Pvt. Ltd.-8571, Rashtrapati Road, Secunderabad 3.

Deccan Automobiles.—Siddiambar Bazar, Hyderabad.

Defiance Automobiles.—Mehta Mahal, 49, Mahatma Gandhi Road, Secunderabad 1.

Eastern Automobiles.—Rani Gunj, Secunderabad.

General Automobiles.—Siddiambar Bazar, Hyderabad.

Indian Agricultural & Engineering Co. (Hyd.) Pvt. Ltd.— 173, Fateh Maidan, North Road, Hyderabad 4.

Indian Commercial Co. Pvt. Ltd.—Mahatma Gandhi Road, Secunderabad 1.

India Leaf Spring Mfg. Co. Pvt. Ltd.—62, Mahatma Gandhi Road, Secunderabad 1.

Krishna Automobiles.—Maharani Jhansi Road, Afzul Gunj, Hyderabad.

Lakshmi Engineering Corpn.—1-8-28/29, Minister Road, Rani Gunj, Secunderabad.

Mahalakshmi Automobiles.—Turebazkhan Road, Hyderabad.

Pai Automobiles & Co.—61/5 (2-2-139), Mahatma Gandhi Road, Secunderabad 3.

Patny & Co., Pvt. Ltd.—87, Sarojini Devi Road, Secunderabad 3.

Prabhat Automobiles.-54, Mahatma Gandhi Road, Secunderabad.

Rane Pvt. Ltd.-51, Mahatma Gandhi Road, Secunderabad 1.

Reliable Corporation,-Siddiambar Bazar, Hyderabad. Shah Auto Engg. Co. Pvt. Ltd.—Rashtrapathi Road, Secunderabad 3.

Standard Automobiles.—Siddiambar Bazar, Hyderabad. Strong-Hold Industries.—Gyan Bagh, Hyderabad 12.

Sundaram Motors Pvt. Ltd.-67, Rashtrapati Road, Secunderabad 3.

Torison Products Ltd.—Uppal Road, Hyderabad 7.

Vasant Automobiles.—62, Mahatma Gandhi Road, Secunderabad.

Wipers (India).—C-22, Industrial Estate, Hyderabad 18.

# CHEMICAL & PHARMACEUTICAL PRODUCTS

Andhra Chemical Industries. - B-64, Industrial Estate, Hyderabad 18.

Biochemical & Synthetic Products Ltd.—Sanatnagar, Hyderabad 18.

Biological Evans Ltd.-18/3, Azamabad, Hyderabad 20. Camphor Drugs & Liniments.—Lalbungalow F. 2-862, Ameerpet, Hyderabad 16.

Commercial Chemical Co.—B-14, Industrial Estate, Sanatnagar, Hyderabad-18.

Dalphin Laboratories Pvt. Ltd.-10-3-331, Castle Hill, Masab Tank, Hyderabad 28.

Hyderabad Chemical & Pharmaceutical Works Ltd.-Azamabad, Industrial Area, Hyderabad 20.

Hyderabad Chemicals & Fertilizers Ltd.—Bashir Bagh, Hyderabad.

Indian Chemical and Pharmaceutical Works.—Azamabad, Hyderabad 20.

Dr. Karanth's Pharmaceutical Chemical Industry.—B-11, Industrial Estate, Hyderabad 18.

Liberty Pharma Industries.—Begumpet, Hyderabad 16. Orgaroma India Pvt. Ltd.—Toli Chowki, Hyderabad 8.

Pancha Pharma Corporation.—1102, Narayanguda, Hyderabad 29.

Pankaj Chemical & Pharmaceutical Works.—1-1-524, Hughes Town, Hyderabad 1.

Pharma Chemical Industry.—B-11, Ind. Estate, Sanatnagar, Hyderabad 18.

Shetty's Pharmaceuticals & Biological Works.—Mashirabad, Hyderabad.

Standard Pharmaceutical Works Ltd.—5-8-579, Abid Road, Hyderabad.

Warner Hindustan Ltd.—Warangal Road, Uppal, Hyderabad 13.

# **ELECTRICAL & ENGINEERING GOODS**

Andhra Pradesh Co.,—Durga Bhavan, Rashtrapathi Road, Secunderabad 3.

Andhra Vidyut Industries.—C-23, Industrial Estate, Hyderabad 18.

Belde Engineering Co.—6549, Rashtrapati Road, Secunderabad 3.

Cenco Electrical Appliances.—C-32, Industrial Estate, Hyderabad 18.

Central Trading Co.—Rashtrapati Road, Secunderabad 3. Crushic & Co.—Boorugu Mansions, 62, Mahatma Gandhi

Road, Secunderabad 1.

Eastern Electric and Engineering Co. Ltd.—3/8, Rashtrapati Road, Secunderabad 3.

Elektra Products.—C-17, Sanatnagar, Hyderabad 18.

Electric Transformer & Equipment Co.—5-9-19/15, Saifabad, Hyderabad 22.

Emson Engineering Corporation.—142, Rashtrapati Road, Secunderabad 3.

Hindustan Dealers Ltd.—4-3-339, Sultan Bazar, Hyderabad 1.

International Engineering Corpn.—Durga Bhavan, 141, Rashtrapati Road, Secunderabad 3.

Premier Industries.—C-18, Industrial Estate, Hyderabad 18.

Scientific Electricals.—Shalibanda, Hyderabad 2.

Shanker Electrics.—205, Yousuf Building, Abid Road, Hyderabed.

Speedwell Electricals Pvt. Ltd.—B-1, Sanatnagar, Hyderabad 18.

Swan Agencies.—6549, Rashtrapathi Road, Secunderabad 3.

Switchgear Mfg. Co.—C-5, Industrial Estate, Sanatnagar, Hyderabad 18.

V-X-L Agency.—138, Rashtrapati Road, Secunderabad 3.

# MACHINERY & FOUNDRIES

Andhra Foundry & Machine Co. Ltd.—28, Sarojini Devi Road, Secunderabad 3.

Andhra Light Industries.—Sanatnagar, Hyderabad 18.
Andhra Machinery Corporation.—8569, M. G. Road,
Secunderabad 3.

Balaji Centrifugal Castings.—Balanagar, Hyderabad 37. Batlibol & Co. Pvt. Ltd.—New Mody Building, Rashtrapathi Road, Secunderabad 3.

Belde Engineering Co.—6549, Rashtrapati Road, Secunderabad 3.

Crown Castings Pvt. Ltd.—Sanatnagar, Hyderabad 18. Deccan Moulding & Iron Works.—Sanatnagar, Hyderabad 18.

Dominion Engineering Corporation.—P. Box 37, Secunderabad.

Electronic & Engineering Instruments Mfrs. Corporation.— C-11, Industrial Estate, Hyderabad 18.

Ganesh Machinery Traders.—Rashtrapati Road, Secunderabad 3.

Industrial Stores Co. Hyderabad Ltd.—11, Durga Bhavan, Rashtrapathi Road, Secunderabad 3.

Jayems Engineering Co.—153, Rashtrapati Road, Secunderabad 3.

Krishna Engineering Workshop.—Industrial Area, Azamabad, Hyderabad 20.

Krishna Foundry Pvt. Ltd.—Sanatnagar, Hyderabad 18.
Mechano Enterprises.—C-42, Industrial Estate, Sanatnagar, Hyderabad 18.

Neeta Enterprises Pvt. Ltd.—Balanagar, Hyderabad 37. Pershad Engineering Works.—Mushirabad, Hyderabad 20.

Radha Madhav Eng. Co.—C-39, Industrial Estate, Sanatnagar, Hyderabad 18.

Sadanand Engineering Works.—19-1, Azamabad, Hyderabad 20.

Sarada Engineering Co.—Moula Ali, Hyderabad 40.

Saslar Malleables.—Chikkadpalli, Hyderabad 20.

Standard Printers & Providers.—C. 40, Industrial Estate, Sanatnagar, Hyderabad 18.

Trinity Metal Works.—Sanatnagar, Hyderabad 18.

United Engineering Corporation.—147, Rashtrapati Road, Secunderabad 3.

Voltas Ltd.—87/D, Rashtrapathi Road, Secunderabad 3.

#### PIPES AND FITTINGS

Commercial Trading Corporation.—Ranigunj, Secunderabad.

C. P. Shah & Brothers.—Ranigunj, Secunderabad.

Deccan Metal Works.—Mahatma Gandhi Road, Secunderabad 3.

Indian Hume Pipe Co. Ltd.—Industrial Area, Azamabad, Hyderabad 20.

Industrial Stores Co. Hyderabad Ltd.—11, Durga Bhavan, Rashtrapathi Road, Secunderabad 3.

M. K. Mudliar & Sons.—8059, Rashtrapati Road, Secunderabad 3.

National Sanitary Engineering Co.—149, Rashtrapati Road, Secunderabad 3.

# PLASTIC PRODUCTS MFRS. & DEALERS

Ashok Plastics.—B-1, Industrial Estate, Hyderabad 18.

Balaji Plastics Pvt. Ltd.—No. 12, Block II, Lalbahadur Stadium, Hyderabad 1.

Indecor Pvt. Ltd.—B.45/46, Industrial Estate, Hyderabad 18.

Plastic Engineering Components Pvt. Ltd.—D-8/9, Govt. Industrial Estate, Moula Ali, Secuderabad 17.

Ram Plastic Industries.—15-7-406, Begum Bazar, Hyderabad 12.

Sanatnagar Polythene Industries.— Osmangung, Hyderabad 12.

U. Foam Pvt. Ltd.— B-15/16, Industrial Estate, Hyderabad 18.

# BAKELITE HYLAM LTD.

Sanathnagar, Hyderabad-18. Phone: 39571.

Registered Office: 183-184, Rashtrapathi Road, Post Box 1617, Secunderabad 3. Phone: 77001. Branches at: Bombay, Delhi, Calcutta.

Manufacturers of : HYLAM Laminated Sheets, Tubes and Rods for industrial applications; HYLAM Copperclad Laminates for printed circuits; DECOLAM Decorative Laminated sheets for furniture surfacing and panelling; HYLAK Polyester Resins for car bodies, boat hulls, corrugated roof-light sheets, machine housings, helmets, chemical tanks, button making sheets, potting of electrical ballasts, embedding of botanical specimens and novelty articles, surface coating and general purpose laminating; HYLAK Phenolic Moulding Materials for the manufacture of telephone bodies and handsets, radio cabinets, instrument cases and special grades for the manufacture of electrical accessories, etc.; HYLAK Phenolic Resins for Shell Moulds and Cores, Neoprene Upgrading, Phenolic Varnish for Coating and many other industrial applications. Sole Selling Agents for South India: Best & Company Private Limited, Madras, Bangalore, Coimbatore, Ernakulam, Tiruchirapalli.

# PUMPING SETS AND PUMPING MACHINERY

Hyderabad Alloy Foundries Pvt. Ltd.,—5-3-960/1, Jawaharlal Nehru Road, Hyderabad 1. Water Supply Specialists Pvt. Ltd.—2670-74, Ghasmandy Road, Secunderabad.

# SANITARY ENGINEERS AND DEALERS IN SANITARY GOODS

Anand Sanitary Engineering Co.- 4-3-91, Rashtrapathi Road, Secunderabad 3.

Aurora Sanitary Engineering Co.-1-D, Rashtrapathi Road, Secunderabad 3.

Barman Brothers.—Barman Building, Gunfoundry, Hyderabad.

Italia Mehta & Co.—3-6-333, Bashir Bagh Road, Hyderabad 29.

Italia Mehta Sales Corporation.—3-6-333, Bashir Bagh Road, Hyderabad 29.

K. Karunakar & Sons.—Reddy Hospital Bldgs., Tilak Road, Hyderabad 1.

M. K. Mudaliar & Sons.—8059, Rashtrapathi Road, Secunderabad 3.

Nathoo Laljee.—Gunfoundry Road, Hyderabad 1.

National Sanitary Engineering Co.—149, Rashtrapathi Road, Secunderabad 3.

# SCIENTIFIC & SURGICAL INSTRUMENTS

Andhra Scientific Co. Ltd.— Abid Road, Hyderabad 1. Arjun Electronics Pvt. Ltd.—Bashir Bagh, Hyderabad 1. Electronic & Industrial Instruments Co. Pvt. Ltd.—B-17, Industrial Estate, Hyderabad 18.

Instrumentation Engineers.— B-4, Co-op. Industrial Estate, Balanagar, Secunderabad 11.

Instruments Techniques Laboratory.— B-2, Co-op. Industrial Estate, Secunderabad 11.

Jyoti Industries.— C-31, Industrial Estate, Hyderabad 18. Scientific Engineering House Pvt. Ltd.— 6-1-1063, Lakdi-Ka-Pul, Hyderabad 4.

Scientific Instrument Co.—30, Sultan Bazar, Hyderabad. Vijay Scientific Equipments.—Rashtrapathi Road, Secunderabad 3.

Zodiac Scientific Works.—Anilweld Mesh Compound, Sanatnagar, Hyderabad 18.

# DELHI-COMMERCIAL FIRMS

A. B. Pandit & Co.—6A, Connaught Place, New Delhi 1. Abrol & Co., R. C. P. Ltd.—20, Feroze Gandhi Road, New Delhi 14

Acme Co.—Nizamuddin East, New Delhi 13.

Addison & Co. Ltd.—Jangpura Extension, New Delhi 14. Advance Electronics.—Jogdhian Colony, Chandni Chowk, Delhi 6.

Advani & Co. Pvt. Ltd.—Chawri Bazar, Delhi 6.

Agents & Distributors Pvt. Ltd.—6/5571, Nai Sarak, Delhi 6.

Aggrallios & Co.—11-B, Netaji Subbash Marg, New Delhi 6. Agfa Gevaert Ltd.—22A, Asaf Ali Road, New Delhi 1.

Ahuja & Co., H. S.—4/68, Punjabi Bagh, Rohtak Road, New Delhi 26.

Air France, Allahabad Bank Building, New Delhi 1.
Alfred Herbert (India) Pvt. Ltd.—"Gulati Mansions",
4-10, Asaf Ali Road, New Delhi 1.

Allenberry & Co. (Pvt.) Ltd.—10, Darya Ganj, Delhi 6. Allied Agencies—1399, Pahari Imli, Jama Masjid, Delhi 6. Allied Electric & Hardware Ind. Pvt. Ltd.—10307, Motikhan, New Delhi 1.

All India Finance & Commerce Ltd.—K. Block, Connaught Circus, New Delhi I. Amar Co. P. Ltd.—Katra Hussain Bux, Khari Baoli, Delhi 6.

Ambassador Travels Pvt. Ltd.—60, Regal Building, New Delhi I.

Ambitious Gold Nib Mfg. Co. (Pvt.) Ltd.—27/7, Nagia Park, Shakti Nagar, Delhi 6.

American Express Internal—Hamilton House, Connaught Place, New Delhi 1.

American International Underwriters (India) Ltd.—31-K Block, Connaught Place, New Delhi 1.

American Refrigerator Co.—20A, Najafgarh Road, New Delhi 15.

American Rubber Mills Co.—G. T. Road, New Delhi 32.

Anta Industries (India).—17, D. L. F. Industrial Area,

Andrew Yule & Co. Ltd.—127, Jor Bagh, New Delhi 1.

Armstrong Smith Ltd.—14 F Block, Connaught Place, New Delhi 1.

Asbestos Cement Co. Ltd.—D-24, N.D.S.E. Part II, New Delhi 49.

Asbestos Magnesia & Friction Materials Ltd.—Hamilton House, Connaught Place. New Delhi 1. Ashok Mfg. Co. P. Ltd.—37, Panchkuan Road, New Delhi 1. Asiatic Syndicate.—6/5, W. E. A., New Delhi 5.

Associated Cement Co. Ltd.—82-84, Janpath, New Delhi 1.
Associated Elect Industries (Pvt.) Ltd.—United India
Life Bldg., Connaught Place, New Delhi 1.

Associated Hotels of India Ltd.—Maiden's Hotel, Alipore Road, Delhi 7.

Associated Instruments (I) Pvt. Ltd.—35, Najafgarh Road, New Delhi 15.

Associated Traders & Engs. Pvt. Ltd.—20, Asaf Ali Road, New Delhi 1.

Associated Tube Wells India Pvt. Ltd.—12, Scindia House, New Delhi 1.

Asu Traders Pvt. Ltd.—Kashmere Gate, Delhi 6.

Atlantis East Ltd.—B-4/10, Asaf Ali Road, New Delhi 1. Atlas Copco (I) Pvt. Ltd.—M-8, South Extn., Part II, Ring Road, New Delhi 16.

Atlas Cycle Industries Ltd.—115, Jor Bagh, New Delhi 3. Atul Glass Industries Pvt. Ltd.—D. B. Gupta Road, New Delhi.

Autometers Ltd.—D-22, Defence Colony, New Delhi 3. Auto Spring Mfg. Co.—Hamilton Road, Delhi 6.

Avery Co. of India, Pvt. Ltd.—1, Ansari Road, Darya Ganj, Delhi 6.

Babcock & Wilcox of India Pvt. Ltd.—29, Golf Link, New Delhi 3.

Bahri & Co. Pvt. Ltd.—Defence Colony, Ring Road, New Delhi 3.

Bajaj Electricals Ltd.—Ramjas Bldg., 4/11, Asaf Ali Road, New Delhi I.

Balmer Lawrie & Co., Ltd.—56, Jor Bagh, New Delhi 3.

Balussery Benefit Chit Fund Pvt. Ltd.—124, Asaf Ali Road, New Delhi I.

Barbrix Traders Pvt. Ltd.—54, Janpath, New Delhi 1.

Bata Shoe Co. Pvt. Ltd.—K. Gate, Delhi 6.

Bennett, Coleman & Co. Ltd.—7, Bahadur Shah Zaffar Marg, New Delhi 1.

Bharat Carbon & Ribbon Mfg. Co. Ltd.—6, Ring Road, Lajpat Nagar IV, New Delhi 24.

Bharat Engineering & Mfg. Co.—25/2, North Rohtak Road, New Delhi 5.

Bharat Kala Kendra Pvt. Ltd.—23-B, Connaught Place, New Delhi.

Bharat Nidhi Ltd.—5, Parliament Street, New Delhi 1. Bharat Overseas Pvt. Ltd.—P. N. B. Bldg., Parliament Street, New Delhi 1.

Bharat Ram Charat Ram Pvt. Ltd.—Sardar Patel Road, New Delhi 11.

Bharat Steel Tubes Ltd.—Allahabad Bank Bldg., Parliament Street, New Delhi 1.

Bharat Wood Products Co.—69, Desh Bandhu Gupta Road, New Delhi 1.

Bird & Co. Pvt. Ltd.—74, Janpath, New Delhi 1.

Birla Brothers Pvt. Ltd.—United Commercial Bank Bldg., Parliament Street, New Delhi 1.

Bishamber Dass & Sons (Pvt.) Ltd.—Bishamber Bhavan, 54, Daryaganj, Delhi 6.

Blackwood Hodge (India) Pvt. Ltd.—K 9, NDSE Part 1-3, New Delhi 49.

Blue Star Engg. Co., (Bombay) Pvt. Ltd.—1/23-B, Asaf Ali Road, New Dehli 1.

Bombay Co. Pvt. Ltd.—Chandni Chowk, Delhi 6.

B. Pannalal Pvt. Ltd.—Asaf Ali Road, New Delhi 1.

Brihat Varat Trading Co. Ltd.—Netaji Subash Marg, Darya Ganj, Delhi 6.

Britannia Biscuit Co. Ltd.—33, Lawrence Road, Industrial Area, New Delhi 35. British Overseas Airways Corporation—Hamilton Bldg., 1-A, Connaught Place, New Delhi 1.

Brooke Bond India Pvt. Ltd.—Marshal House, Hanuman Road, New Delhi 1.

Buckingham & Carnatic Co. Ltd.—Dr. Gopal Das Building, 28, Barakhamba Road, New Delhi 1.

Burlap Dealers Ltd.—N-78, Connaught Circus, New Delhi 1.

Burmah-Shell.—Burmah-Shell House, Connaught Circus, New Delhi 1.

Cadbury Fry India Ltd.—National & Grindlays Bank
 Building, 4 Block, Connaught Circus, New Delhi 1.
 Caltex (India) Ltd.—Thapar House, 124, Janpath, New

Delhi 1.

Cambata Industries Pvt. Ltd.—C227, Defence Colony, New Delhi 3.

 Caprihans (India) Private Ltd.—7/7, Desh Bandhu Gupta Road, Paharganj, New Delhi 55.
 Caxton Press (Pvt.) Ltd.—Caxton House, Rani Jhansi

Road, New Delhi I.

Cement Marketing Co. of India Pvt. Ltd.—Jeevan Deep Bldg., Parliament Street, New Delhi 1.

Chemicals & Metallurgical Designs Co. Pvt. Ltd.—A-60, Kailash, New Delhi 48.

Chika Ltd.—25/1, Asaf Ali Road, New Delhi 1.

Chloride & Exide Batteries (Eastern) Ltd.—Exide House, 3/1, Jhandewalan Extension, New Delhi 5.

Coates of India Ltd.—7 DLF Industrial Area, Najafgarh Road, New Delhi 15.

Coca-Cola Export Corporation.—14-A, Nizamuddin West, New Delhi 13.

Concrete Tanks Mfg. Co.—61/36, Rohtak Road, New Delhi 5.

Continental Commercial Co. Pvt. Ltd.—M 43, Connaught Circus, New Delhi 1.

Continental Construction Pvt. Ltd.—E-11, Defence Colony, Ring Road, New Delhi 3.

Continental Exports.—18/4, Asaf Ali Road, New Delhi 1. Cox & Kings (Agents) Ltd.—Indra Palace, Connaught Circus, New Delhi.

C. P. N. Industries.—18, Najafgarh Road, New Delhi 15. C. R. E. Wood & Co. Pvt. Ltd.—3/13-B, Asaf Ali Road, New Delhi 1.

Crescent Agencies Pvt. Ltd.—9-N, Munshilal Bldgs., Connaught Circus, New Delhi 1.

Crewco Works Ltd.—23-A, Najafgarh Road, New Delhi 15. Crompton Greaves Ltd.—Thapar House, 124, Janpath, New Delhi 1.

Dalmia Cement (Bharat) Ltd.—4, Scindia House, New Delhi 1.

Dastur & Co. Pvt. Ltd. M. N.—2, Rajdoot Marg, Chanakyapuri, New Delhi 11.

D. C. M. Chemical Works.—Najafgarh Road, Delhi 15.

Delhi Bottling Co. Pvt. Ltd.—60, Najafgarh Road, Industrial Area, New Delhi 15.

Delhi Engineering Works Pvt. Ltd.—G. T. Road, Delhi 32.
 Delhi Floorings Pvt. Ltd.—71/5, Najafgarh Road, New Delhi 15.

DGL Pvt. Ltd.—14-M Block, Connaught Circus, New Delhi 1.

Dharam Singh & Co. P. Ltd.—B-3/5, Asaf Ali Road, New Delhi 1.

Didwania Brothers Pvt. Ltd.—1/1666, Lothian Road, K. Gate, Delhi 6.

Dilwali Traders Pvt. Ltd.—1490, Chandni Chowk, Delhi 6. Dodsal Pvt. Ltd.—United Commercial Bank Building, Parliament Street, New Delhi 1. Dunlop India Ltd.—10-A, Curzon Road, New Delhi 1.

Dyer Meakin Breweries Ltd.—K. Gate, Delhi 6.

Eastern Arts Corporation.—11/B-4, Asaf Ali Road, New Delhi 1.

Eastern Equipment & Sales Ltd.—H Block, Connaught Circus, New Delhi 1.

Eastern Linkers Pvt. Ltd.—Odeon Building, New Delhi 1. Eicher Tractor India Pvt. Ltd.—16-A, Asaf Ali Road,

New Delhi 1.

Electromek Industries Pvt. Ltd.—Chandni Chowk, Delhi 6. English Electric Co. of India Ltd.—Allahabad Bank Bldg., 17, Parliament Street, New Delhi 1.

Escorts Ltd.—Pratap Buildings, Connaught Circus, New

Delhi 1.

Essex Farms Pvt. Ltd.—4, Mehrauli Road, New Delhi 16. Esso Standard Eastern.— UCO Bank Building, Parliament Street, New Delhi 1.

Express Newspapers Pvt. Ltd.—Bahadur Shah Zaffar Marg, New Delhi 1.

Firestone Tyre & Rubber Co. of India Ltd.—Nicholson Road, Kashmere Gate, Delhi 6.

Food Specialities Ltd.—3, Bahadur Shah Zaffar Marg, New Delhi 1.

Forbes Forbes Campbell & Co. Pvt. Ltd.—9/3, Asaf Ali Road, New Delhi 1.

Fourbhai Pvt. Ltd.—14, Netaji Subash Marg, New Delhi 6. Gadodia & Son (Pvt.) Ltd., L. N.—Regd. Office: Kucha Natwan, Chandni Chowk, Delhi 6.

Ganesan P. Ltd. P. N.—K-29, Connaught Place, New Delhi I.

Ganesh Flour Mills Co. Ltd.—Post Box No. 1025, Subzimandi, Delhi 7.

Gannon Dunkerley & Co. Ltd.—4A, Mathura Road, Jangpura, New Delhi 14.

Garlick & Co. Pvt. Ltd.—18-B, Nizamuddin West, New Delhi 13.

Gedodore Tools (India) Pvt. Ltd.—151, Golf Links, New Delhi 3.

General Electric Co. of India P. Ltd.—Connaught House, Connaught Place, New Delhi 1.

General Equipment Manufacturers Ltd.—18-19K, Connaught Circus, New Delhi 1.

General Radio & Appliances Co. Pvt. Ltd.—Jogdhian Colony, 27, Netaji Subhash Marg, New Delhi 6.

Geoffrey Manners & Co. Pvt. Ltd.—Lakshmi Ins. Bldg., Asaf Ali Road, New Delhi I.

Gestetner Duplicators Ltd.—9, Scindia House, New Delhi 1.

Ghaziabad Engineering Co. Pvt. Ltd.—Pyarelal Building, 52, Janpath, New Delhi.

Gillanders Arbuthnot & Co. Ltd.—Regal Bldgs., New Delhi 1.

Gladstone Lyall & Co. Ltd.—Connaught Circus, New Delhi 1. Glaxo Laboratories India (Pvt.) Ltd.—Mathura Road, Okhla, New Delhi 20.

Globe Steels.—1/2, Jhandewalan, New Delhi 5.

Godrej & Boyce Mfg. Co. Pvt. Ltd.—Laxmi Insurance Building, Asaf Ali Road, New Delhi I.

Building, Asaf Ali Road, New Delhi 1. Goetz India Ltd.—Block H, Connaught Circus, New Delhi 1. Golden Tobacco Co. Ltd.—2/26, Jhandewalan Extn., New Delhi 5.

Goodearth Group of Cos.—16-A, Asaf Ali Road, New Delhi 1.

Goodyear India Pvt. Ltd.—1, Ansari Road, Daryaganj, Delhi 6.

Govan Bros. Ltd.-4, Scindia House, New Delhi 1.

Gramophone Co. of India Ltd.—23, Darya Ganj, Delhi 6. Greaves Cotton & Co. Ltd.—Thapar House, 124, Janpath, New Delhi 1.

Guest, Keen, Williams Ltd.—Jeevan Vihar, 3, Parliament Street, New Delhi 1.

Hans Raj Gupta & Co. Pvt. Ltd.—Ajmere Gate, Delhi 6.
Harbans Lal Malhotra & Sons Pvt. Ltd.—Delite Cinema
Bldg., Asaf Ali Road, New Delhi 1.

Havells Electrical (Sales) Corporation.—1-21, Asaf Ali Road, New Delhi 1.

Herman & Mohatta (India) Pvt. Ltd., B. R.—K Block, Connaught Circus, Delhi 6.

Himalaya Manufacturing & Sales Co.—Park Mansions, Netaji Subash Marg, Delhi 6.

Himco (India) Pvt. Ltd.—1412, Nicholson Road, Delhi 6.
Hind Trading and Mfg. Co.—Gale Burma, Sadar Bazar,
Delhi 6.

Hindco Rotatron Pvt. Ltd.—3E/2, Jhandewalan Extn., New Delhi 55.

Hindustan Construction Co. Ltd.—B-1, Pusa Road, New Delhi 5.

Hindustan Dowidat Tools Ltd.—U.C.O. Bank Building, Parliament Street, New Delhi 1.

Hindustan General Industries Ltd.—Qutub Road, Delhi 6.
Hindustan Electronics Pvt. Ltd.—1801, Chandni Chowk.
Delhi 6.

Hindustan Ferodo Ltd.—Hamilton House, Connaught Place, New Delhi 1.

Hindustan Industries.—10222, Loha Mandi, Pahar Ganj, New Delhi 55.

Hindustan Lever Ltd.—Lever House, Bahadur Shah Zaffar, Marg, New Delhi 1.

The Hindustan Times.—Connaught Circus, New D∈lhi 1. Hindustan Transmission Products Ltd.—1681/28, Mangal Market, Bhagirath Palace, Chandni Chowk, Delhi 6.

Hitkari Brothers (of Delhi)—9, Netaji Subhash Marg, Delhi 6.

Hoechst Dyes & Chemicals Ltd.—3, Asaf Ali Road, New Delhi 1.

Hoechst Pharmaceuticals Ltd.—3/1, Asaf Ali Road, New Delhi 1.

Howrah Motor Co. Ltd.—Kashmere Gate, Delhi 6.

Ibcon Pvt. Ltd.—B-64, Defenc. Colony, New Delhi 3.
I. B. M. World Trade Corporation.—4, Bahadur Shah Zaffar Marg, New Delhi 1.

I.C.I. (India) Pvt. Ltd.—Hamilton House, Connaught Place, New Delhi 1.

Imperial Tobacco Co. of India Ltd.—Thapar House, 124 Janpath, New Delhi 1.

Incomex Enterprises Pvt. Ltd.—52, Ring Road, New Delhi 24.

Indequip P. Ltd.—3792, Netaji Subhash Marg, Darya Ganj, Delhi 6.

India Steamship Co. Ltd.—D200, Defence Colony, New Delhi 3.

India Trading Co. Pvt. Ltd.—Chandni Chowk, Delhi 6.

India Tyre & Rubber Co. of India Pvt. Ltd.—3, Hamilton Road, Delhi 6.

Indian Aluminium Cable Ltd.—F-40, South Extention Part 1, New Delhi 3.

Indian Cable Co. Ltd.—9-A, Connaught Place, New Delhi 1.

Indian Detonators Ltd.—D131, Defence Colony, New Delhi 3.

Indian Hume Pipe Co. Ltd.—Old Rohtak Road, Sarai Rohilla, Delhi 7. Indian Iron and Steel Co. Ltd.—40, Janpath, New Delhi 1. Indian Landsberg Implements Corporation Pvt. Ltd.—16-A, Asaf Ali Road, New Delhi 1.

Indian Metallurgical Industries Ltd.—4/8, Asaf Ali Road, New Delhi 1.

Indian Oxygen Ltd.—66, Industrial Area, Nafg. Road, New Delhi 15.

Indian Refrigeration Industries.—7/15, Kirtinagar, New Delhi 15.

Indian Traders Pvt. Ltd.—Dayal Bldgs., Chandni Chowk, Delhi 6.

Indian Tube Co. (1953) Ltd.—11A, Rouse Avenue Lane, New Delhi 1.

Indmag Pvt. Ltd.—United Commercial Bank Bldg., Parliament Street, New Delhi 1.

Indo Asiatic Engineers Pvt. Ltd.—32, Arakashan Road, New Delhi 55.

Indo Burma Petroleum Co. Ltd.—Allahabad Bank Building, 17, Parliament Street, New Delhi 1.

Indo-Europa Trading Co.—Near Central Bank of India, Chandni Chowk, Delhi 6.

Indra Agencies.—Gobind Mansion, H Block, Connaught Circus, New Delhi 1.

Indudyog P. Ltd.—40, Industrial Estate, Okhla, New Delhi 20.

Industrial Product Distributors Pvt. Ltd.—497, Esplanade Road, Delhi 6.

Industrial Sewing Machines Private Ltd.—1/23-B, Asaf Ali Road, New Delhi 1.

Intercontinental Agencies (Pvt.) Ltd.—1/21, Asaf Ali Road, New Delhi 1.

International Equipment Corpn. Pvt. Ltd.—5/51, Greater Kailash, New Delhi 48.

International General Electric Co. India Pvt. Ltd.—Nehru House, Bahadur Shah Zaffar Marg, New Delhi 1.

International Imex (Agents) Pvt. Ltd.—Sunlight Bldg., Asaf Ali Road, New Delhi 1.

International Ore & Fertilizer (I) Pvt. Ltd.—16B, Ganga Ram Hosp. Marg, New Delhi 5.

International Sales Corpn. Pvt. Ltd.—D9, Nizamuddin East, New Delhi 13.

International Talkie Equipment Co. Pvt. Ltd.—1823/IV, Chandni Chowk, Delhi 6.

Iron Traders (Pvt.) Ltd.—5008, Bazar Sirki Walan, Delhi 6.

Ishwar Industries Ltd.—P.O. Ishwar Nagar, New Delhi 20.
Iyer & Sou Pvt. Ltd.—United India Bldg.—F Block, Connaught Place, New Delhi 1.

J. and P. Coats (India) Pvt. Ltd.—Post Box No. 1091, G. B. Road, Delhi 6.

Jagatjit Industries Ltd.—54, Ring Road, Lajpat Nagar III, New Delhi 14.

Jai Dayal Kapur & Sons Pvt. Ltd.—Chawri Bazar, Delhi 6.

Jaipur Udyog Ltd.—5, Parliament Street, New Delhi 1.
James Finlay & Co. Ltd.—Hamilton Bldg., C. Place, New Delhi 1.

Jankidas & Co. 23/F, Connaught Place, New Delhi 1.

Jardine Henderson Ltd.—Indra Palace, Connaught Place, New Delhi.

Jari & Co. Ltd.—61, Daryaganj, Delhi 7. J. B. Mangaram & Co.—Fateh Puri, Delhi 6.

Jenson & Nicholson India Ltd.—15/1, Asaf Ali Road, New Delhi 1, o

Jessop & Co. Ltd.—C 389, Defence Colony, New Delhi 3. Jindal & Sons Pvt. Ltd.—Jindal House, 9B, Asaf Ali Road, New Delhi 1. J. Mahabeer & Co. Pvt. Ltd.—Netaji Subhash Marg, Delhi 6.

Johnston Pumps India Ltd.—28, Barakhamba Road, New Delhi 1.

Kahansons & Co., S. K.—No. 41, Connaught Circus, New Delhi 1.

Kalsi Tyre Retreading Factory Pvt. Ltd.—10/11, D.L.F. Industrial Area, Najafgarh Road, New Delhi 15.

Kamal & Co. (India) P. Ltd.—5598, Lahori Gate, Delhi 6. Kamani Brothers Pvt. Ltd.—United India Life Bldg.,

Connaught Place, New Delhi 1.

# KAMANI METALS & ALLOYS LTD.

\*

Manufacturers of:

Brass, Copper, Phosphor-Bronze & Zinc Sheets, Strips & Coils.

\*

United India Building,
'F' Block
Connaught Place, New Delhi-I

Phone: 45055

Kastings Pvt. Ltd.—31, Karnal Road, P.O. Ajudhia Mills, Delhi 33.

Kay Bee Industries.—51, Najafgarh Road, New Delhi 15. Kelvinator of India Ltd.—19A, Alipore Road, Delhi 7.

Kemp & Co. Ltd.—Connaught Place, New Delhi 1.

Kesho Ram & Sons India Pvt. Ltd.—Opp. Dariba, Chandni Chowk, Delhi 6.

Keventer (Successors) Pvt. Ltd.—10, Darya Ganj, Delhi 6.
K. G. Khosla & Co. (Private) Ltd.—1, Deshbandu Gupta Road, New Delhi 1.

Khanna & Co. Pvt. Ltd., B. K.—14-F, Connaught Place, New Delhi 1.

Khanna & Sons Pvt. Ltd.—Khanna Bldg., N. Rohtak Road, New Delhi 5.

Khemka & Co. (Agencies) Pvt. Ltd.—Speeds Bird House, Connaught Circus, New Delhi 1.

Kidarson Industries Pvt. Ltd.—Allahabad Bank Bldg., 17, Parliament Street, New Delhi 1.

Kilburn & Co. Pvt. Ltd.—Gopal Dass Gupta Block, 28, Barakhamba Road, New Delhi. Killick Caribonum Ltd.—10A, Indra Palace Annexe, New Delhi 1.

Kirloskar Bros. Ltd.—5, Parliament Street, P. Box No. 214, New Delhi 1.

K. K. Bubby Industries.—28, S. Thana Street, Delhi 6.

Kodak Ltd.—33/34, Netaji Subhas Road, Darya Ganj, Delhi 6.

Koolaire Pvt. Ltd.-44, Janpath, New Delhi 1.

Kosdrug Pvt. Ltd.—16/4, Asaf Ali Road, New Delhi 1.

K. T. Group of Enterprises.—22, Malcha Marg, Chanakyapuri, New Delhi 21.

Kuljian Corporation (India) Pvt. Ltd.—127, Sunda Nagar, New Delhi 11.

Laffans India Pvt. Ltd.—11-N, Connaught Circus, New Delhi.

Laldee Pvt. Ltd.—Vijaya Press Bldgs., Naya Bazar, Delhi 6.

Larsen & Toubro Ltd.—Express Bldg., Bahadur Shah Zafar Marg, New Delhi 1.

Latham Abercrombie & Co. Pvt. Ltd.—10/3, Asaf Ali Road, New Delhi 1.

Lawrence & Mayo (India) Ltd.—76, Janpath, New Delhi 1. Lipton Ltd.—5/3, Asaf Ali Road, New Delhi 1.

Lloyd Electric Engineering Co.—Punj House, M-13, Connaught Circus, New Delhi 1.

Macneill & Barry Ltd.—28, Barakhamba Road, Connaught Circus, New Delhi 1.

Maco Pvt. Ltd.-6692/1, Khari Baoli, Delhi 6.

Macropolo & Co. Pvt. Ltd.—15, Regal Bldgs., New Delhi I. Mahabeer & Co. Pvt. Ltd., J.—Netaji Subhas Marg, Delhi 6.

Mahindra and Mahindra Ltd.—8 Parliament Street, New Delhi 1.

Marshall Sons & Co. (India) Ltd.—Marshall House, Hanuman Road, New Delhi 1.

Martin Burn Ltd.-40-42, Janpath, New Delhi 1.

Marwaha Mfg. Co.—Block B, Plot 3, North Rohtak Road, New Delhi 5.

Matchless Industries of India.—36, DLF, Najafgarh Road, New Delhi 15.

Matchwel Electricals (India) Ltd.—Ramjas Bldg., 4/11, Asaf Ali Road, New Delhi 1.

May & Baker (India) Pvt. Ltd.—Chaudhary Bldg., K Block, Connaught Circus, New Delhi 1.

Mercantile Associates Pvt. Ltd.—5/1, D. B. Gupta Road, New Delhi 1.

Mercury Travels (India) Pvt. Ltd.—Jeevan Tara Bldg., Parliament Street, New Delhi 1.

Metal Box Co. of India Ltd.—Allahabad Bank Building, Parliament Street, New Delhi 1.

Metal Distributors Ltd.—4-D, Nizamuddin West, New Delhi 13.

Meters and Instruments Pvt. Ltd.—4/90, Connaught Place, New Delhi 1.

Metropol Corporation (India).—3647, Faiz Bazar, Delhi 6.

Metropolitan Book Co. Pvt. Ltd.—1, Netaji Subash Marg, Delhi 6.

Mintop Corporation.—C-202, Defence Colony, New Delhi 3. Mitsubishi Shoji Kaisha Ltd.—Marshall House, Hanuman Road, New Delhi 1.

Modern India Constructions Ltd.—N-78, Bombay Life Building, Connaught Circus, New Delhi.

Modern Machines Pvt. Ltd.—Chuna Mandi, Paharganj, New Delhi 55.

Modi Industries (F.C.) Pvt. Ltd.—117, M Block, Connaught Circus, New Delhi 1.

Monotype Corporation Ltd.—Vohra House, 25, Asaf Ali Road, New Delhi 1. Motor & Machinery Mfg. Co.—8, Sundar Nagar, New Delhi 1.

Muller & Phipps India Pvt. Ltd.—9E, Connaught Place, New Delhi.

Multiple Industries.—50/42, Punjabi Bagh, New Delhi 26.

Mysore Commercial Union Ltd.—2, Scindia House, Janpath, New Delhi 1.

Mysore Sales International Ltd., 3E/1, Jhandewalan Extn., New Delhi 55.

Narang Brothers & Co. Pvt. Ltd.—3, Cavalry Lines, Delhi 7.

National Air Products Ltd.—M. G. F. House, 17-B, Asaf Ali Road, New Delhi 1.

National Conduits Pvt. Ltd.—4029, Chawri Bazar, Delhi 6.
National Organic Chemical Industries Ltd.—Burmah-Shell House, Connaught Circus, New Delhi 1.

National Traders (Delhi) Ltd.—58, Janpath, New Delhi 1. National Tyre & Rubber Co. of India Ltd.—Pawha Mansions, 11B, Asaf Ali Road, New Delhi 1.

Nationale Air Products Pvt. Ltd.—M.G.F. House, 17B, Asaf Ali Road, New Delhi 1.

Nav Bharat Engg. Co.—110, Naya Bazar, Delhi 6.

New Era Steel Co.—Opp. Mercantile Bank, Chandni Chowk, Delhi 6.

New India Assurance Company.—3-10/11, Asaf Ali Road, New Delhi 1.

New India Motors Pvt. Ltd.—Scindia House, New Delhi. North India Light Weight Steels Pvt. Ltd.—63, Najafgarh Road, Industrial Area, New Delhi 15.

Organo Chemical Industries.—L-62, Connaught Circus, New Delhi 1.

Orient Express Co. Pvt. Ltd.—70, Janpath, New Delhi 1.

Orient Industries Corpn.—5, Okhla Industrial Estate, New Delhi 20.

Oriental Mercantile Co. Ltd.—1/23, Asaf Ali Road, New Delhi 1.

Oriental Spun Pipe Co. Ltd.—8, Scindia House, New Delhi I.

Oriental Trading & Gen. Supply Co. Ltd.—D5, Defence Colony, N. w Delhi 3.

Orr Dignam & Co.—National Insurance Building, Parliament Street, New Delhi I.

Otis Elevator Co. India Pvt. Ltd.—Jeevan Deep Bldg., 8, Parliament Street, New Delhi 1.

Palit & Co. Ltd., A. R.—M 30, Greater Kailash I, New Delhi 48.

Pan American World Airways.—39, Hotel Imperial, New Delhi 1.

Paper Products Ltd.—13/4, Ajmeri Gate Extension, New Delhi 1.

Paradise Industries.—14, Najafgarh Road, New Delhi 15. Parry & Co. Ltd.—Jeevan Deep Bldg., Parliament Street, New Delhi 1.

Payen Talbros Pvt. Ltd.—7, Najafgarh, Industrial Area, New Delhi 15.

Pearey Lal & Sons .- 42, Janpath, New Delhi 1.

Pelican Ceramic Industries.—P. O. Gurgaon Road, Mahi-palpur, New Delhi 37.

Pest Control Corporation.—8/12, Rajpur Road, Delhi 6.

Pest Control India Pvt. Ltd.—F.47, N.D.S.E. Part I, Ring Road, New Delhi 49.

Phillips India Ltd.—68, Najafgarh Road, New Delhi 15. Phipson & Co. Pvt. Ltd.—N 6, Connaught Circus, New

Debt 1. Photoshore Farings Photoshore Phot

Photophone Equipments Pvt. Ltd.—4850, Asaf Ali Road, New Delhi 1. Prem Engineering Works.—22, Industrial Estate, Okhla, New Delhi 20.

Prem Nath Motors Private Ltd.—Scindia House, New Delhi 1.

Premier Automobiles Ltd.—10, Parliament Street, New Delhi 1.

Prestige Electronics Pvt. Ltd.—16-B, Connaught Place, New Delhi.

Prestolite of India Ltd.—Kundan Mansions, 2A/3, Asaf Ali Road, New Delhi 1.

Printers House Pvt. Ltd.—M-13, Connaught Place, New Delhi 1.

Process Engravers Pvt. Ltd.—Caxton House, 2E, Jhandewalan, New Delhi 5.

Protos Engg. Co. Pvt. Ltd.—E Block, 6th Radial Road, Connaught Place, New Delhi 1.

Punj & Sons Pvt. Ltd.—Punj House, M-13, Connaught Circus, New Delhi 1.

Pure Drinks Private Ltd.—M Block, Connaught Place, New Delhi.

Radio Lamp Works Ltd.—4/11, Asaf Ali Road, New Delhi 1.

Raghanath Rai & Co.—3, Hanuman Road, New Delhi 1. Rai & Sons Pvt. Ltd.—Phelps Bldg., 9-A, Connaught Place, New Delhi 1.

Raj Engineering Works Pvt. Ltd.—8/32, Ajmeri Gate, Delhi 6.

Rajsons Pvt. Ltd.-Asaf Ali Road, New Delhi 1.

Rallis India Ltd.—Marshall House, Hanuman Road, New Delhi 1.

Ram Prakash & Co. Pvt. Ltd.—3, S. P. Mukerjee Marg, Delhi 6.

Ranbaxy Laboratories Ltd.—Okhla Industrial Estate, New Delhi 20.

Rangorsons Industries.—31, Industrial Area, Okhla, New Delhi 20.

Beahriya Bearing Bhandar.—11070, Motia Khan, New Delhi 55.

Raunaq & Co. (Pvt.) Ltd.—14/15, F, Connaught Place, New Delhi I.

Ravi Bros.—Behind St. James Church, Kashmere Gate, Delhi 6.

Ray & Co. India Pvt. Ltd.—D43, Rajouri Garden, New Delhi 27.

Reliable Finance Corpn. Pvt. Ltd.—B-6, Asaf Ali Road, New Delhi 1.

Reuters Ltd.—27, Prithivi Raj Road, New Delhi 11. Roadways & General Finance Private Ltd.—4/2-B, Jawala

Roadways & General Finance Private Ltd.—4/2-B, Jawaia Mansion, Asaf Ali Road, New Delhi 1.

Roberts Mclean & Co. Ltd.—9R Pusa Road, New Delhi 5.

Roberts, Mclean & Co. Ltd.—9B, Pusa Road, New Delhi 5. Remington Rand of India Ltd.—Jivan Vihar, 3 Parliament Street, New Delhi 1.

Roneo Ltd.—Bombay Life Building, Connaught Circus, New Delhi 1.

Roneo Vickers India Ltd.—18/4, Jor Bagh, New Delhi 3. Sahib Singh Mfg. Co. Pvt. Ltd.—7, Okhla Industrial Estate, New Delhi 20.

Sahnisons Pvt. Ltd.—4/14-A, Asaf Ali Road, New Delhi 1.
Sahu Jain Ltd.—P.N.B. Bldg., 5, Parliament Street, New Delhi 1.

Salig Ram & Co. Ltd.—14/70, Kutab Road, Delhi 6. Sandoz India Pvt. Ltd.—4/2, Asaf Ali Road, New Delhi 1. Sanghi Brothers Ltd.—52, Janpath, New Delhi 1.

Sawhney Engineering Works, Pvt. Ltd.—3/17-A, Asaf Ali Road, New Delhi 1.

Sealand India Pvt. Ltd.—2855, Sirkiwalan, Delhi 6. Sen & Pardit Private Ltd.—3/8, Asaf Ali Road, New Delhi 1.

Shahani & Co., M. G. (Delhi), Pvt. Ltd.—34-B, Connaught Place, New Delhi 1. Shahji & Sons Pvt. Ltd.—1/5B, Asaf Ali Road, New Delhi 1.

Shalimar Tar Products Ltd.—Mercantile Bank Bldg., Connaught Place, New Delhi 1.

Shankar Lal & Sons Pvt. Ltd.—487, Esplanade Road, Delhi 6.

Sharma & Co. Pvt. Ltd.—Convaught Place, New Delhi 1. Sharpedge.—34, Okhla Industrial Estate, New Delhi 20.

naw Wallace & Co., Ltd.—9A, Connaught Place, New Delhi 1.

Sheet Metal Co. of India.—62, Najafgarh Road, New Delhi 15.

Shevaroy Bauxite Products Co. Ltd.—C204, Defence Colony, New Delhi 3. Shiv Dayal Soin & Sons Pvt. Ltd.—Shyama Prasad

Mukerjee Marg, Delhi 6.

Shourie Duplicators Pvt. Ltd.—Ind. Area, Najafgarh Road, New Delhi 21.

Shree Hanuman Foundries Ltd.—25-H, Connaught Circus, New Delhi.

Shree Krishna Pvt. Ltd.—1010, Chawri Bazar, Delhi 6. Shri Ram Associates Pvt. Ltd.—Bara Hindu Rao, Delhi 6.

Siemens India Ltd.—E Block, Connaught Place, New Delhi 1.

Sikand Construction Pvt. Ltd.—State Bank Building, Parliament Street, New Delhi 1.

Singer Sewing Machine Co.—21, Netaji Subash Marg, Daryaganj, Delhi 7.

Singhania & Kapadia Mfg. Co.—1/406, G. T. Road, Delhi-Shahdara 32.

Siyaram Kumar Engineering Works Pvt. Ltd.—20B, Najafgarh Road, New Delhi 15.

# SKODA (INDIA) PRIVATE LTD.

Consulting Engineers and Suppliers of Heavy Industrial Plants such as Cement & Ceramic Factories, Steam and Hydro-Electric Power Stations, Small and Medium scale Industries, Coal Washeries, Breweries, Brick Making Plants, Bottling Plants, Tannery and Shoe Making Plants; Machinery and equipment for Tobacco Industry, Wood-Working Industry, Rubber Industry, Metallurgical Industry, Mining, Artificial fibres, Oil refining, Chemical Industry, Glass Manufacturing Plants, Textile Industry, Flour Mills; Shunting Locomotives (Diesel Hydraulic & Diesel Electric), Earth Moving equipment, Special Steel etc. etc. from CZECHOSLOVAKIA.

Technical services, technical collaboration in Industrial production, Knowhow processes from CZECHOSLO-VAKIA. Consultants for Suppliers of inorganic Chemical products Manufacturing Plants and Paper Manufacturing Plants from G.D.R.

"Akash Deep", 6th Floor, Barakhamba Road, Post Box No. 638, New Delhi-1.

Telegrams: "CZECHPLANT".

Branches :

BOMBAY, CALCUTTA, MADRAS

Skytone Electricals India.—Sadar Thana Road, Delhi 6.

S. M. G. Beaty Pvt. Ltd.—Connaught Place, New Delhi 1. S. N. Kohli & Co. Pvt. Ltd.—Kashmere Gate, Delhi 6.

S. N. Sunderson & Co.-1, Deshbandu Gupta Road, New

S. Nath Kakar & Son.-41, Hanuman Road, New Delhi 1. Sodhbans Brothers.-Dibar Building, D. B. Gupta Road, Paharganj, New Delhi 55.

S. P. Virmani & Son Pvt. Ltd.—1/11, Asaf Ali Road, New Delhi.

Spencer & Co. Ltd.—19A, Alipore Road, Delhi 6.

Spun Pipe & Construction Co. of India Pvt. Ltd. -9A/41, W.E.A., New Delhi 5.

The Statesman .- Connaught Circus, New Delhi 1.

Steelsons Pvt. Ltd.-16-B, Pleasure Garden Market, Delhi 6.

Sterling Advertising (Pvt.) Ltd.—Jeewan Roop Mansion, L Block, Connaught Circus, New Delhi 1.

Stone, J. & Co. (India) Pvt. Ltd.-M Block, Connaught

Circus, New Delhi 1. Structural Fabricators Pvt. Ltd.—67, Najafgarh Road, New Delhi 15.

Super Export International.—50, National Park, New Delhi 14.

Super Speed Distributors Pvt. Ltd.—18-A, Kailash Colony, New Delhi 48.

Super Tubes Pvt. Ltd.—Jain Bhawan, Hauz Qazi, Delhi 6. Super Markets Pvt. Ltd.—9A/3, Pusa Road, New Delhi 5. Super Seals India (Pvt.) Ltd.—21A, Nizamuddin West, New Delhi 13.

Swan (India) Pvt. Ltd.-28-F, Connaught Place, New Delhi.

Sylvania & Laxman Ltd.—68/2, Najafgarh Road, New Delhi 15.

Tata Industries Pvt. Ltd.—L.I.C. Building, Parliament Street, New Delhi 1

Tata Iron & Steel Co. Ltd.—47, Ring Road, Lajpat Nagar III, New Delhi 24.

Tayal Brothers Pvt. Ltd.—Outside Ajmeri Gate, Delhi 6. Taylor Instrument Co. (India) Ltd.—19, Babar Road, New Delhi 7.

T. E. Paterson (India) Pvt. Ltd.—Gurgaon Road, Near Palam Airport, P.B. No. 726, New Delhi.

Tej Daily Ltd.—Naya Bazar, Delhi 6.

Thomson Press (India) Ltd.-K Block, Connaught Circus, New Delhi 1.

Telefunken India Ltd.-G-4, N.D.S.E. Part I, New Delhi 16.

The Times of India .- 7, Bahadur Shah Zaffar Marg, New Delhi 1.

Tractor & Equipment Corp. Ltd.—225, Jor Bagh, New Delhi 3.

Trade Links Pvt. Ltd.-46, Pusa Road, New Delhi 5. Travel Aids (India).—42, Daryaganj Road, Delhi 6.

T. V. Sundram Iyengar & Sons Pvt. Ltd.-T. V. S. House, D-4 South Extension, Part II, New Delhi 16.

Turner Hoare & Co. Pvt. Ltd.-10, Parliament Street, New Delhi 1.

Tyresoles Concessionaires Pvt. Ltd.—D. L. F. Industrial Area, Najafgarh Road, New Delhi 15.

Uberoi Ltd.—14/E, Connaught Place, New Delhi 1.

Union Carbide India Ltd.—3/1, United Commercial Bank Bldg., Parliament Street, New Delhi 1.

Union Commercial & Industrial Co. Ltd.-3/8, Asaf Ali Road, New Delhi 1.

Unisales Engineers Pvt. Ltd.—9 N., Munshi Lal Bldg., Connaught Circus, New Delhi 1.

United Dairies Ltd.-N Block, Connaught Circus, New

United Provinces Commercial Corpn. Pvt. Ltd.-Marshal House, Hanuman Road, New Delhi 1.

United Traders.-403, Halder Qull, Chandni Chowk. Delhi 6.

Universal Agencies.—3C/13, N. Rohtak Road, New Delhi 5. Universal Engineering Corpn.—34, D.L.F., Najafgarh Road, New Delhi 15.

Universal Metal Industries.—Rani Jhansi Road, New Delhi 55.

Upper India Trading Co. Pvt. Ltd.—Kashmere Gate, Delhi 6.

Usha Forgings & Stampings Ltd.-8, Scindia House, Connaught Place, New Delhi 1.

Usha Rectifier Corporation (India) Ltd.—3/15, Asaf Ali Road, New Delhi 1.

Usha Sales Pvt. Ltd.-4-E, Rani Jhansi Road, New Delhi 55.

Uttam Singh Dugal & Co. Pvt. Ltd.—11, Marina Arcade, New Delhi 1.

V. D. Swami & Co. Pvt. Ltd.—138, Jor Bagh, New Delhi 3. Vickers India Pvt. Ltd.—136, Sundar Nagar, New Delhi 11.

Vijay Electronics Pvt. Ltd.—131, Connaught Circus, New Delhi 1.

Vita Pvt. Ltd.—32, Alipur Road, Delhi 6.

Voltas Ltd.—10-A, Curzon Road, New Delhi 1.

Vulcan Laval Ltd.—Allahabad Bank Building, Parliament Street, New Delhi 1.

Walker Chandiok & Co.-41-L, Connaught Circus, New

Wearwell Cycle Co. (India) Ltd.—46-M, Connaught Circus, New Delhi 1.

Western Mfg. Co. Delhi Pvt. Ltd.—8, D. B. Gupta Road, New Delhi 55.

Western India Match Co. Ltd.—Allahabad Bank Bldg., 17, Parliament Street, New Delhi 1.



# WILLCOX BUCKWELL INDIA LIMITED

(Subsidiary of Larsen & Toubro Limited)

Registered Office:

32, Najafgarh Road, P.O. Box 289, New Delhi 15.

Phone: 583171. Grams: "WILLBUZ".

Telex: TLX 327.

Authorised dealers for :

Caterpillar Tractors and Earthmoving Equipment, John Deere Agricultural Tractors, Harvesters and Implements, Coles Cranes, Hyster Fork Lift Trucks and other well known manufacturing companies for Northern India.

Directors: H. Holck-Larsen, N. M. Desai, W. Barreto, K. S. S. Mani.

William Jacks & Co. I. Pvt. Ltd.—Jeevan Vihar Bldg., Parliament Street, New Delhi 1.

# DELHI-CLASSIFIED LIST OF TRADES AND PROFESSIONS

## ABRASIVES

Carborundum Universal Ltd.—Laxman House, 2nd Floor, 10/3, Asaf Ali Road, New Delhi 1.

Shevaroy Pvt. Ltd.—C-204, Defence Colony, New Delhi 3. Trade Links Private Ltd.—Pusa Road, New Delhi 5.

# ADVERTISING AND PUBLICITY AGENTS

Asian Advertising.—H-35, Connaught Circus, New Delhi I.

Associated Artists.—Phelps Building, 9-A, Connaught
Place, New Delhi 1.

Associated Advertisers & Printers.—Bharatiya Vidya Bhawan Bldg., Curzon Road, New Delhi 1.

Bharat Publicity Service.—H/82, Kirti Nagar, New Delhil 5. Bomas Ltd.—1/25, Asaf Ali Road, New Delhi 1.

Clarion McCann Advertising Services Ltd.—18, Hanuman Road, New Delhi 1.

Delux Publicity Service.—Deluxe Bldgs., 1795, Schanganj, Subzimandi, Delhi 7.

Gayways Publicity Private Ltd.—45, Panchkuan Road, New Delhi 1.

Grant Advertising, (India) Ltd.—Indra Palace Annexe 2, Connaught Circus, New Delhi 1.

Herald Advertising Agency.—7133, Ansari Road, Daryaganj, Delhi 6.

Hind Publicity Service.—270, Kamla Market, New Delhi 1. Hindustan Publicity Corporation.—21, Darya Ganj, Delhi 6.

Hindustan Thompson Associates Ltd.—142, Sunder Nagar, New Delhi 11.

India Advertising Service.—7/D, Rajouri Garden, New Delhi 27.

Interads Advertising (Pvt.) Ltd.—4/24-A, Asaf Ali Road, New Delhi 1.

Jupiter Publicity Co.-74, G. B. Road, Delhi 6.

Laurels Publicity Service Ltd.—32/M, Connaught Circus, New Delhi 1.

Marketing Advertising Associates Pvt. Ltd.—25-1, Asaf Ali Road, New Delhi.

National Advertising Service Pvt. Ltd.—127, Golf Links, New Delhi 3.

National Publicity Service.—A-6, Connaught Place, New Delhi I.

Newfields Advertising Pvt. Ltd.—3/4-A, Asaf Ali Road, New Delhi 1.

Partap Advertising Agency.—1/8-B, Asaf Ali Road, New Delhi 1.

Pioneer Publicity Corporation.—20/UB, Jawahar Nagar, Delhi 7.

Pratibha Advertising.—66, Babar Road, New Delhi 1. Press Syndicate Ltd.—8, Parliament Street, New Delhi 1.

Rama Publicity Service Pvt. Ltd.—Nai Wara, Delhi 6. Sterling Advtg. Pvt. Ltd.—Jeewan Roop Mansion,

L Block, Connaught Circus, New Delhi 1.

Surjit Advertising Service.—E27, Kirti Nagar, New Delhi 15.

Universal Advertisers.—4, Jamna Bhavan, Asaf Ali Road, New Delhi 1.

Vasudeva Publicity Service.—50-M, Connaught Circus, New Delhi 1.

## AGRICULTURAL MACHINERY

Escorts Ltd.—Pratap Bldg., Connaught Circus, New Delhi 1.

Gardeners Corporation.—66, Industrial Area, Okla, New Delhi 20.

Ghaziabad Engineering Co. (Pvt.) Ltd.—42, Janpath, New Delhi. 1.

Globe Motors Workshops Ltd.—1/2, Jhandewalan, Delhi 5. Kapoor Eng. Works.—8218, Roshanara Road, Delhi 7. Landsberg India Pvt. Ltd.—16-A, Asaf Ali Road, New Delhi 1.

Larsen & Toubro Ltd.—Express Bldg., Bahadur Shah Zaffar Marg, New Delhi 1.

Pritam Singh & Sons.—10, Rani Jhansi Road, New Delhi 55.

Saraf Industries.—Saraf Bhawan, 34, Pusa Road, New Delhi 5.

# AIR-CONDITIONING AND REFRIGERATION

Ahuja (Refrigeration) Pvt. Ltd.—Asaf Ali Road, New Delhi 1.

Air Conditioning Corporation Ltd.—64, Ring Road, Lajpatnagar, 111, New Delhi 24.

Allied Refrigeration Corpn.—Laxmi Insurance Building, Asaf Ali Road, New Delhi 1.

American Refrigerator Co. Ltd.—20A, Najafgarh Road, New Delhi 15.

Associated Electrical Indudstries (India) Pvt. Ltd.—Indra Palace, Connaught Place, New Delhi 1.

Bhagatji & Co.—Kucha Dakuri Rai, Darya Ganj, Delhi 6. Bharat Air Conditioning Corporation.—12/3B, Connaught Place, New Delhi 1.

Blue Star Engineering Co. Pvt. Ltd.—1/23B, Asaf Ali Road, New Delhi 1.

Bombay Ammonia Pvt. Ltd.—24/1, Asaf Ali Road, New Delhi 1.

Capital Refrigeration Co.—B-7, Asaf Ali Road, New Delhi 1.

Commercial Refrigeration Co. P. Ltd.—Connaught Place, New Delhi I.

Commercial Refrigeration Corpn.—21, Daryaganj, Delhi 6.
Cutler Hammer India Ltd.—D-25, Defence Colony, New Delhi 3.

Delhi Refrigeration Corpn.—3819-30, David Street, Darya Ganj, Delhi 6.

Eastern Electric & Trading Co.—17E, Connaught Place, New Delhi 1.

Electronics Ltd.—12-A, Connaught Place, New Delhi 1. Fedders Lloyd Corpn. Pvt. Ltd.—2, Industrial Area, Kalkaji, New Delhi 19.

Federal Refrigeration Works.—3773, Faiz Bazar, Delhi 6.
Frick India Ltd.—Jeevan Vihar, Parliament Street, New Delhi 1.

Frigsales India Pvt. Ltd.—Grover Mansion, Asaf Ali Road, New Delhi 1.

Frigtool Sales Corpn.—Ansari Road, Daryaganj, Delhi 6. Gardners Corpn.—6, Doctor Lane, New Delhi 1.

General Equipment Merchants Ltd.—19-K, Connaught Circus, New Delhi 1.

Himalaya Mfg. & Sales Co.—Darya Ganj, Delhi 6.

Hindustan Cold Stores & Refrigeration Pvt. Ltd.—1, Dufferin Bridge, Delhi 6. Hindustan Refrigeration Stores.—2, Netaji Subhas Marg, Delhi 6.

Ice Machinery Co.-66, G. B. Road, Delhi 6.

Ice Machinery Mart.—37, Netaji Subhas Marg, Delhi 6.

Indian Refrigeration Industries.—7/15, Kirti Nagar, New Delhi 15.

K. G. Khosla & Co. Pvt. Ltd.—1, Deshbandu Gupta Road, New Delhi 55.

Kooler's Refrigeration & Air Conditioning Co.—1, L Block, Connaught Circus, New Delhi 1.

Koolaire Pvt. Ltd.-44, Janpath, New Delhi 1.

Lloyd Electric & Engineering Co.—Punj House, M-13, Connaught Circus, New Delhi 1.

Modern Air-Conditioning Co.—34, Sunder Nagar Market, New Delhi 11.

National Refrigeration Works.—3, Subhash Marg, Delhi 6. Oriental Refrigeration & Engg. Co. Pvt. Ltd.—Lakshmi Insurance Bldg., Asaf Ali Road, New Delhi 1.

Paramount Industries.—M-53, Connaught Circus, New Delhi 1.

Refrigeration Machines Corpn.—3744, Daryaganj, Delhi 6. Refrigerators (India) Pvt. Ltd.—46, Janpath, New Delhi 1. Shriram Refrigeration Industries Ltd.—Caxton Press Building, Jhandewalan Extension, New Delhi 55.

Surfrige Service Refrigerations Pvt. Ltd.—46, Janpath, New Delhi I.

Universal Refrigeration Industries.—J-11/43, Rajouri Garden, New Delhi 14.

Virmani Refrigeration & Cold Storage Pvt. Ltd.—Rani Jhansi Road, New Delhi 55.

Voltas Ltd.-10-A, Curzon Road, New Delhi 1.

#### **ALUMINIUM**

Hindustan Chains (Pvt.) Ltd.—Sales Office: 20/1, Asaf Ali Road, New Delhi 1.

Mahavir Metal Works Pvt. Ltd.—477, Bartan Market, Sadar Bazar, Delhi 6.

Swastiks.—8-B, Jindal Trust Bldg., Asaf Ali Road, New Delhi 1.

# **ASBESTOS PRODUCTS**

Asbestos Cement & Gen. Corpn.—A-3/15, Asaf Ali Road, New Delhi 1.

Asbestos Magnesia & Friction Materials Ltd.—Hamilton House, Connaught Place, New Delhi 1.

Hindustan Ferodo Ltd.—Hamilton House, Connaught Place, New Delhi 1.

# AUTOMOBILE PARTS AND ACCESSORIES

Allied Auto Agencies.—28/M, Connaught Circus, New Delhi 1.

Allied Motors Private Ltd.—Scindia House, Janpath, New Delhi 1.

American Automobiles.—1008, Hamilton Road, Kashmere Gate, Delhi 6.

American Radio & Automobile Co.—S. P. Mukherji Marg, Delhi 6.

Anand Automobiles.—Yusuf Sarai, New Delhi 16.

Aryavarta Auto Supply Co.—698, Hamilton Road, Kashmere Gate, Delhi 6.

Autolines (India).—8, Peareylal Motor Market, Kashmere Gate, Delhi 6.

Automotive Manufacturers' Agencies.—2610, Hamilton Road, Delhi 6.

Bansal & Co.—Hamilton Road, Kashmere Gate, Delhi 6.

Bharat Motor Co.—S. P. Mukherji Marg, Delhi 6.

Bombay Motors.—750, S. P. Mukherji Marg, Delhi 6. British Motor Car Co. Pvt. Ltd.—Connaught Circus, New

British Motor Car Co. Pvt. Ltd.—Connaught Circus, New Delhi 1.

Central Automobiles.—2638, Hamilton Road, Kashmere Gate, Delhi 6.

Conwest Pvt. Ltd.-Kashmere Gate, Delhi 6.

Delhi Automobiles.—3/15, Asaf Ali Road, New Delhi 1. Evergreen Automobiles.—2641, Hamilton Road, Kashmere Gate, Delhi 6.

Friends United Co.—12A, Bhagirath Palace, Chandni Chowk, Delhi 6.

General Auto Parts Co.—Lothian Road, Kashmere Gate, Delhi 6.

General Marketing Co.—984, Hamilton Road, Kashmere Gate, Delhi 6.

Globe Auto Industries.—B-85/86, Rewari Line Industrial Area, Near Rajouri Garden, New Delhi 27.

Globe Automobiles.-S. P. Mukherji Marg, Delhi 6.

Globe Motors Ltd.—1/2, Jhandewalan, New Delhi 1.

Hind Electronic Industries.—69, Najafgarh Road, New Delhi 15.

Hindusthan Automobiles.—22, Gokhale Market, Delhi 6.
Hindustan Ferodo Ltd.—Hamilton House, 2nd Floor,
Block A, Connaught Place, New Delhi 1.

Indian Auto Supply Co.—70, Gokhale Market, Delhi 6.

International Agencies.—1/1278, Sultan Singh Bldg., Kashmere Gate, Delhi 6.

Jai Bharat Auto Industries.—605, Hamilton Road, Delhi 6.

Jolly Auto Industries.—82, Gokhale Market, Delhi 6.

Jolly Automobiles Co.—2602, Hamilton Road, Kashmere Gate, Delhi 6.

Jullundur Motor Agency (Delhi) Pvt. Ltd.—Kashmere Gate, Delhi 6.

Khosla Automobiles Co.—14, Ramsingh Motor Market, Kashmere Gate, Delhi 6.

Manohar Motors.—Kashmere Gate, Delhi 6. Modern Automobiles.—Kashmere Gate, Delhi 6.

Narankari Automobiles.—Pyarelal Motor Market, Kashmere Gate, Delhi 6.

New Central Automobiles.—Kashmere Gate, Delhi 6.

New India Motors Private Ltd.—Scindia House, New Delhi 1.

New Lakshmi Automobiles.—Kashmere Gate, Delhi 6.

New Standard Automobiles.—S. P. Mukherji Marg, Delhi 6.

Northern India Motor Co.—M/10, Connaught Circus, New Delhi 1.

Paramount Automobiles.—Gandhi Motor Market, Kashmere Gate, Delhi 6.

Parkash Automobiles.—2630, Hamilton Road, Kashmere Gate, Delhi 6.

Pindi Auto Corporation.—17, Nehru Motor Market, Kashmere Gate, Delhi 6.

Premier Automobile Co.—10, Parliament Street, New Delhi 1.

Premnath Motors Pvt. Ltd.—Scindia House, New Delhi 1. Prestolite of India Ltd.—Kundan Mansion, 2-A-3, Asaf Ali Road, New Delhi 1.

Royal Automobiles.—Kashmere Gate, Delhi 6.

Ruby Automobiles.—Minerva Motor Market, Kashmere Gate, Delhi 6.

Saini Rubber Industries.—609, Hamilton Road, Delhi 6. Sanghi Motors.—1/4E, Jhandewala, Link Road, New Delhi 1. Saran Motors Pvt. Ltd.—Peareylal Bldg., Tolstoy Marg, New Delhi.

Siyaram Kumar Engg. Works Pvt. Ltd.—45, Najafgarh Road, New Delhi 15.

S. N. Kohli & Co. Pvt. Ltd.—Kashmere Gate, Delhi 6. Sondhi Motors.—21C, Connaught Place, New Delhi 1. Standard Automobiles.—Kashmere Gate, Delhi 6.

Sunshine Industries.—602, Hamilton Road, K. Gate, Delhi 6.

Supreme Motors Pvt. Ltd.—Asaf Ali Road, New Delhi 1. Swadesh Automobiles.—1/2734, Kashmere Gate, Delhi 6. United Auto Corporation.—1/635, Hamilton Road, Delhi 7. Vohra Automobiles.—H-28, Jangpura Extn., West, New Delhi 14.

Western Automobiles (India).—708A, Chotta Bazar, Kashmere Gate, Delhi 6.

# **AUTOMOBILE & ANCILLARY INDUSTRIES**

Associated Engg. Works Ltd.—Kashmere Gate, Delhi 6. Auto Lamps Ltd.—6, Alipur Road, Delhi 6.

Auto Pins (India) Regd.—Kashmere Gate, Delhi 6.

Brake Lining Ltd.—6, Ring Road, Lajpat Nagar, IV, New Delhi 24.

Bramec Suri Pvt. Ltd.—1655, S. P. Mukherji Marg, Delhi 6.

Escorts Ltd.—Pratap Buildings, Connaught Circus, New Delhi 1.

Goetze (India) Ltd.—Block "H", Connaught Circus, New Delhi 1.

J. M. A. Industries Pvt. Ltd.—8, Padmini Enclave, Hauz Khas, New Delhi 16.

Murarka Engineering Works.—28/37, Najafgarh Road,

New Delhi 15. New India Motors Pvt. Ltd.—Scindia House, New

Delhi 1. Payen-Talbros Pvt. Ltd.—7, Najafgarh Industrial Area,

New Delhi 15. Racmann Koshatkinn (Regd.).—53, Industrial Area,

Najafgarh Road, New Delhi 15. Shama Engine Valves Ltd.—14-F, Connaught Place, New

Delhi 1.
Sharco Industries Pvt. Ltd.—2750, Sharan Kutir,
Kashmere Gate, Delhi 6.

Shar-Lee Filtorites Pvt. Ltd.—Kashmere Gate, Delhi 6.
Super Seals (I) Pvt. Ltd.—21-A, Nizam-Ud-Din West,
New Delhi 13.

#### BALL, TAPER AND ROLLER BEARINGS

 B. Chowdhury & Co.—3-E/4, Jhandewalan, New Delhi 5.
 Bharat Ball Bearing Co. Ltd.—DCM Premises, Bara Hindu Rao, Delhi 6.

Orient General Agencies.—2711, Lohian Road, Kashmere Gate, Delhi 6.

Modern Ball Bearing Co.—Kashmere Gate, Delhi 6. Rashtriya Bearing Bhandar.—11070, Motia Khan, New Delhi 1.

S. C. Kumar & Co.-59, G. B. Road, Delhi 6.

#### BATTERY MANUFACTURERS & DEALERS

Battery Separators Pvt. Ltd.—Kashmere Gate, Delhi 6. Battery Supplying Co.—20, Gokhale Market, Delhi 6. Chloride & Exide Batteries (Eastern) Ltd.—3/E1, Jhandewalan, New Delhi 5.

Spartan Batteries Pvt. Ltd.—S. P. Mukherji Marg, Delhi 6. Standard Batteries Ltd.—Jhandewalan Extn., New Delhi 55.

# BRUSH MANUFACTURERS

Army Brush Factory.—Sadar Bazar, Delhi 6. Kanwal Brush Factory.—3528, Qutab Road, Delhi 6. New Brush Industries.—Shriramnagar, New Delhi 32. Prem Brush Factory.—415, Sadar Bazar, Delhi 6.

# CABLE & WIRE MANUFACTURERS & DEALERS

Aggarwal Cable Works.—3303, Sita Ram Bazar, Delhi 6. Chandra Electrical Industries.—33, Chandni Chowk, Delhi 6.

Delton Cable Co.-3455/3457, Delhi Gate, Delhi 6.

Devidayal Cable Industries Ltd.—Electrical Market, Chandni Chowk, Delhi 6.

Elite Cable Mfg. Co.—38-E, Kamlanagar, Delhi 7.

Hind Cable Co.—1208, Gali Kashmirian, Mohalla Imli, Delhi 6.

Indian Aluminium Cables Ltd.—F-40, New Delhi South Extn., Part I, New Delhi 49.

Indian Cable Co. Ltd.—9A, Connaught Place, New Delhi 1.
Indian Traders Pvt. Ltd.—Dayal Building, Chandni Chowk, Delhi 6.

Industrial Cables (I) Ltd.—National Insurance Bldg., Parliament Street, New Delhi 1.

Lakshmi Cable Co.—Bhagirath Palace, Chandni Chowk,
Delhi 6.

Lakshmi Engineering Works.—Hauz Qazi, Delhi 6.

Meryfur Industries.—Behind State Bank, Chandni Chowk, Delhi 6.

Moti Electric Industries Pvt. Ltd.—15/A, Najafgarh Road, New Delhi 15.

National Conductors.—1400, Pahari Imli, Delhi 6.

National Insulated Cable Co. of India, Ltd.—Kashmere Gate, Delhi 6.

Power Cables Pvt. Ltd.—184, Golf Links Area, New Delhi 3.

Premier Cable Co. Ltd.—F 14/15, Connaught Circus, New Delhi 1.

Ram Sarup Rameshwar Dass.—2545, Tiraha Behram Khan, Delhi 6.

Reliable Electric & Cable Co.—3881, Sarak Prem Narain, Sita Ram Bazar, Delhi 6.

Tara Electric & Cable Co.—777, Kundeywalan, Delhi 6. Universal Cable Mfg. Co.—3302, Bazar Sita Ram, Delhi 6. Universal Cables Ltd.—New Asiatic Bldg., Connaught Place, New Delhi 1.

Victor Cables Corporation.—802, Joshi Road, Karol Bagh, New Delhi 5.

# CHEMICALS, DYES AND PHARMACEUTICAL PRODUCT MANUFACTURERS

Albert David Ltd.—4/11, Asaf Ali Road, New Delhi 1.
Alembic Chemical Works Co. Ltd.—4/18, Asaf Ali Road, New Delhi 1.
Ayurvedic Pharmaceutical Co. Ltd.—264, Kamla Market,

New Delhi 1.

Capital Industries Pvt. Ltd.—Bhaskar Bhavan, Sarai Rohilla, Delhi 7.

East India Pharmaceutical Work Ltd.—3620, Netaji Subash Marg, Delhi 6.

Gurco Pharma Pvt. Ltd.—35, M Block, Connaught Circus, New Delhi 1.

Hamdam Dawakhana.—Lal Kuan, Delhi 6.

High Purity Chemicals Pvt. Ltd.—8/34, Industrial Area, Kirti Nagar, New Delhi 15. Hindustan Insecticides Ltd.—C255, Defence Colony, New Delhi 3.

Hoechst Pharmaceuticals Ltd.—3/1, Asaf Ali Road, New Delhi 1.

I. C. I. India Pvt. Ltd.—Hamilton House, C. Place, New Delhi 1.

India Dyechem Industries Ltd.—Tobacco Katra, Delhi 6. Indo Genuine Chemical Works.—Jama Masjid, Delhi 6.

Mac Laboratories Pvt. Ltd.—29, Ansari Road, Delhi 6.

Martin & Harris Ltd.—22-A, Mahants Bldg., 15/161, Asaf Ali Road, New Delhi 1.

May & Baker (India) Ltd.—Chaudhury Bldg., K Block, Connaught Circus, New Delhi 1.

Modern Chemical Works Pvt. Ltd.—1541, Kashmere Gate, Delhi 6.

Monsanto Chemicals of India Ltd.—3/8, Asaf Ali Road, New Delhi 1.

Multani Ayurvedic Pharmacy.—36-H, Connaught Circus, New Delhi.

Narain Chemicals & Scientific Stores.—3684, Mori Gate, Delhi 6.

National Chemical Industries.—26, Najafgarh Road, Industrial Area, New Delhi 15.

Pioneer Chemical Co.-Tilak Bazar, Delhi 6.

Punjab Chemical Mfg. Co.—52, Najafgarh Road, New Delhi 15.

Radium Chemical Works Ltd.—3583, Daryaganj, Delhi 6. Rampur Distillery & Chemical Co. Ltd.—4, Scindia House, New Delhi 1.

Ranbaxy Laboratories Ltd.—Okhla Industrial Area, New Delhi 20.

Sarabhai Chemicals.—12/3, Asaf Ali Road, New Delhi 1.

#### CHEMICAL DEALERS

Ahmedabad Chemical Co.—255, K. Peran, Delhi 6. Ajodhiya Nath Surindra Nath.—Tilak Bazar, Delhi 6. B. M. Ahuja & Co.—Katra Ishwar Bhawan, Khari Baoli, Delhi 6.

Babuna Brothers.—Katra Tobacco, Khari Baoli, Delhi 6. Bangali Bhushan Bansal & Co.—116, Chandni Chowk, Delhi 6.

Bansal Trading Co.-6692/1, Kharibaoli, Delhi 6.

Central Chemicals.—600, Katra Ishwar Bhawan, Delhi 6. Chemical Corporation of India.—Katra Tobacco, Delhi 6. Chemical De Universe Pvt. Ltd.—2132, Tilak Bazar, Khari Baoli, Delhi.

Chemicals De Centre.—A-3/15, Asaf Ali Road, New Delhi 1.

Chemsales.—2773, Churiwalan, Delhi 6.

Chowdhry Chemical Works.—Jawahar Nagar, Delhi 6.

D. Bagga & Co.—Tilak Bazar, Khari Baoli, Delhi 6.

General Chemical Industries.—Tilak Bazar, Khari Baoli, Delhi 6.

Ghasi Ram Laxmi Narain & Co.—Khari Baoli, Delhi 6. Gopal Chemical Co.—Tilak Bazar, Khari Baoli, Delhi 6.

Gopi Ram Jagdish Pershad.—Gali Saraswali, Naya-Bans, Delhi 6.

Gulab Singh Gopi Rai.—Katra Ishwarbhawan, Khari Baoli, Delhi 6.

Indo Chemical Co.—Tilak Bazar, Khari Baoli, Delhi 6.

Indra Agencies.—K Block, Connaught Circus, New Delhi I.
International Chemical Co.—Tilak Bazar, Khari Baoli, Delhi 6.

Inter Trade Corporation.—116, Chandni Chowk, Delhi 6. Kanhaiya Lall & Sons.—Gadodia Market, Khari Baoli, Delhi 6.

Kanwal Trading Co.-Tilak Bazar, Khari Baoli, Delhi 6.

Meenakshi Chemical Agencies.—6629, Khari Baoli, Delhi 6. Mittal Trading Co.—Tilak Bazar, Khari Baoli, Delhi 6.

Narain Chemical & Scientific Store.—Mori Gate, Delhi 6. Nath Trading Co.—Bara Tooti, Delhi 6.

Onkar Nath & Sons.—Tilak Bazar, Khari Baoli, Delhi 6. Organisation of Chemical de Entire.—7878, Dinanath Street, Delhi 7.

Pioneer Chemical Co.—Tilak Bazar, Delhi 6.

Prabhat Chemical Co.—6099, Gali Batashan, Khari Baoli, Delhi 6.

Ram Nath & Sons.—Tilak Bazar, Khari Baoli, Delhi. Real Chemical Co.—1238, Baidwara Nai Sarak, Delhi 6. Rup Chemical Co.—Katra Ishwar Bhawan, Delhi 6. Vijay Chemical Co.—121, Tilak Bazar, Khari Baoli, Delhi-6.

# CINEMA MACHINERY & EQUIPMENT

Beauty Films.—Bhagirath Palace, Chandni Chowk, Delhi 6. Cine Sales Corporation.—11, Court Road, Civil Lines, Delhi 6.

## DYES & CHEMICALS

Amar Dyestuffs Co.—186 Tilak Bazar, Delhi 6.
Amritlal & Co. (Pvt.) Ltd.—14/3A, Asaf Ali Road, New Delhi 1.

Bhatia Colour Co.-Tilak Bazar, Delhi 6.

Bombay Trading Co.—Gall Matkewali, Sadar Bazar, Delhi 6.

Chimanlal M. Shah.—Tilak Bazar, Delhi 6.

Dwarkadas Laxminarain.—Tobacco Katra, Delhi 6.

Goodwill Enterprise.—7, Chamelian Road, Delhi 6.

Fedco. Pvt. Ltd.—3711-14, N. Subhas Marg, Delhi 6. Hind Dyes Sales Corporation.—Tobacco Katra, Delhi 6.

Harshad & Co.—2022, Katra Lachhusingh, Delhi 6.

Khatau Vallabhdas & Co.—Tobacco Katra, Delhi 6.

Krishna Colour Co.—Tilak Bazar, Delhi 6.

National Colour Co.-Tilak Bazar, Delhi 6.

Ratan Lal & Co.-3A/3, Asaf Ali Road, New Delhi 1.

Sindh Colour Mart.—5170, Rui Mandi, Delhi 6.

S. S. Jain & Co. Pvt. Ltd.—Tilak Bazar, Delhi 6. Trivedi & Co.—Kashmere Gate, Delhi 6.

Union Products Corporation.—1704, Jaghian Colony, Chandni Chowk, Delhi 6.

V. W. Khatalay & Sons.-3/410, Naya Bazar, Delhi 6.

#### **ELECTRIC FANS**

Central India Electric Works.—R57, Greater Kailash, New Delhi 48.

Ditz Electricals (Pvt.) Ltd.—29, Malka Ganj Road, Delhi 7.

Ganesh Flour Mills Co. Ltd.—64/65, Industrial Area, Najafgarh Road, New Delhi 15.

Matchwel Electricals (India) Ltd.—4/11, Asaf Ali Road, New Delhi 1.

Rampur Engineering Co. Ltd.—Ajmere Gate, Delhi 6.

Standard Electric & General Industries.—Electrical Market, Chandni Chowk, Delhi 6.

Standard Electric Trading Co.—1821, Chandni Chowk, Delhi 6.

Sterling Electrical Traders Corpn. Pvt. Ltd.—1/8B, Jindal Trust Bldg., Asaf Ali Road, New Delhi 1.

Supreme Radio & Elec. Corpn.—Electrical Market, Chandni Chowk, Delhi 6.

Swastik Electricals.—Electrical Market, Chandni Chowk, Delhi 6. Trilok Chand & Sons Pvt. Ltd.-Electrical Market, Chandni Chowk, Delhi 6.

Unique Electricals.—Electrical Market, Chandni Chowk,

Venus Electrical Trading Co.—Electrical Market, Chandni Chowk, Delhi 6.

Yogendra Electric Co.—Electrical Market, Chandni Chowk, Delhi 6.

# **ELECTRICAL GOODS & APPLIANCES**

Ashoka Transformer Corporation.-30/9, Nanjia Park, Shakti Nagar, Delhi 7.

Associated Electrical Industries (I) Ltd.—United India Life Bldg., Connaught Place, New Delhi 1.

Associated Instruments Mfrs. (I) Pvt. Ltd.—Sunlight Insurance Bldg., 26, Asaf Ali Road, New Delhi 1.

Bajaj Electricals Ltd.-4/11, Asaf Ali Road, New Delhi 1. Bansal Electric Mfg. Co.—8/33, South Industrial Area, Najafgarh Road, New Delhi 15.

Bhagwan Singh & Sons .- 20-C, Connaught Place, New Delhi 1.

Bhushan Electric Industries.—Hotel Sahakahar, Daryaganj, Delhi 6.

Chandra Electrical Industries. -33, Chandni Chowk, Delhi 6.

Continental Electric & Radio House.—House 4, Kailash, New Delhi 48.

Delhi Electricals.—120 Loni Gate, Delhi-Shahdara-32.

Electrical Industries Corpn.—I.C.M. Premises, Bara Hindu Rao, Delhi 6.

Electrical Mfg. Co. Ltd.-4/11, Asaf Ali Road, New Delhi 1.

Electro Equipments Corpn. Ltd.—Speedbird House, Delhi 1.

Empire Electric & Engineering Works-2 E/1, Jhandiwalan Extension, New Delhi 1.

Grandlay Electricals (I).-3/4, Asaf Ali Road, New Delhi 1. Hardit Singh & Co.-152, Panchkuin Road, New Delhi I. Himalaya Electrical Industries (I) Pvt. Ltd.-8711, Roshanara Road, Delhi 7.

Hitakri Bros. of Delhi.—9, Netaji Subhas Marg, Delhi 6. India Electric Industries.—3582, Netaji Subhas Marg,

Jain Industries.—483, Bartan Market, Sadar Bazar, Delhi 3.

Janson Insulators.—3297, Arya Pura, Subzimandi, Delhi 7. J. M. A. Industries Ltd.—8, Padmini Enclave, Hauz Khas, New Delhi 16.

Koolair's Pvt. Ltd.-44, Janpath, New Delhi 1.

Kundan Lal & Brothers.—Chawri Bazar, Delhi 6.

Meters & Instruments Pvt. Ltd.-4/90, Connaught Circus, New Delhi 1.

Industries.—15-A, Najafgarh Road, Moti Electrical New Delhi 15.

M. T. Electric Co.—Chuna Mandi, Paharganj, New Delhi 55. National Electrical Industries Pvt. Ltd.—32, Indra Palace, Connaught Circus, New Delhi 1.

Saney Electric Co.—984, Shivaji Street, Karolbagh, New Delhi 5.

Skytone Electricals (I).—Sadar Thana Road, Delhi 6. Striplex Industries Pvt. Ltd.-33, Arakasham Road, Ramnagar, New Delhi 1.

Western India Electrical Corporation.—23, Ansari Road, Delhi 6.

# **ELECTRICAL & MECHANICAL ENGINEERS &** DEALERS IN ELECTRICAL GOODS

DELHI

KAMANIS IN SERVICE OF THE NATION

Transmission Towers, Track Structures, Sub-Station Structures, Aerial Masts, Kamani-Twose 'Tractamount' Road Rollers, Stay Rods and 'Jaipur' House Service Meters.

# KAMANI ENGINEERING CORPORATION LTD. JAIPUR METALS & ELECTRICALS LTD.

United India Life Building 'F' Block, Connaught Place New Delhi-I

> Tel.: 45055/45056 Telex: 410

#### FERTILISERS

Indian Farmers Fertilisers Cooperative Ltd.-F-1, South Extension, Part II, Ring Road, New Delhi 16.

Industrial & Allied Sales Pvt. Ltd.-2-E, Rani Jhansi Road, New Delhi 55.

Japan Urea Centre.—10-B, Rajendra Park, Pusa Road, New Delhi 5.

Malabar Chemicals & Fertilisers Ltd.-Jeevan Vihar, Parliament Street, New Delhi 1.

Shriram Fertilisers and Chemicals.—"Naaz Building", 1, Jhandewalan Estate, New Delhi 55.

Sahu Chemicals & Fertilisers,-P.N.B. House. 5, Parliament Street, New Delhi 1.

# FIRE FIGHTING APPLIANCES

DGL Pvt. Ltd.—Connaught Circus, New Delhi 1. Minimax Ltd.-4-A/41, W.E.A., New Delhi 5. Narangs Corporation.—Connaught Place, New Delhi 1.

# FOOD AND FRUIT PRODUCTS MANUFACTURERS AND DEALERS

Ambroisa Food and Canning Industries.—51B, Lawrence Road, New Delhi 5.

Excelsior Food & Chemical Industries.-4, Paharganj Lane, New Delhi 55.

Healthways Food Products Co.-5-E, Sadar Thana Road, Delhi 6.

Hindustan Breakfast Food Mfg. Factory.—64/65, Najatgarh Road, New Delhi 15.

Midland Fruit & Vegetable Products (India) Pvt. Ltd.—Okhla Industrial Estate, New Delhi 20.

Nestle's Products (I) Ltd.—Link House, 3B, Shah Zaffar Marg, New Delhi 1.

#### MACHINE TOOLS

Ameteep Machine Tools Pvt. Ltd.—57, G. B. Road, 'Delhi 6.

Ashok Mfg. Co. P. Ltd.—37, Panchkuin Road, New Delhi.

Bharat Fritz Werner Pvt. Ltd.—Bombay Life Bldg., N. 78, Connaught Circus, New Delhi.

Chanana Brothers.—26-Okhla Industrial Estate, New Delhi 20.

Gedore Tools (I) Pvt. Ltd.—151, G. Links, New Delhi 3. Jeet Machine Tools.—48, G. B. Road, Delhi 6.

Kundli Engineering Industries Pvt. Ltd.—2/35, Ansari Road, Delhi 6.

Machine Tools Manufacturers.—Teliwara, Delhi-Shahdara 32.

Madan Machine Tools.—17, DLF Area, Najafgarh Road, New Delhi 15.

Metal Specialities Co.—Lothian Road, K. Gate, Delhi 6.

#### MACHINERY

Agarwal Pumps & Machinery Corporation.—4117, Naya Bazar, Delhi 6.

Agricultural Engineering Co.—Naya Bazar, Delhi 6. Anand Iron & Steel Industries.—29, Najafgarh Road,

New Delhi 15. Arya Manufacturing Co.—69, G. B. Road, Delhi 6. Ashoka Machinery Stores.—65, G. B. Road, Delhi 6.

Banarsidass Engineering Co.—Naya Bazar, Delhi 6.

Barmi Engineering Works.—Qabool Nagar Shahdara, Delhi 32.

Benlaks (India) House.—71, G. B. Road, Delhi 6.

Bhagwandas & Sons.—4019, Naya Bazar, Delhi.

Bharat Engineering & Mfg. Co.—25/, New Rohtak Road, New Delhi.

Bombay Machinery Co.—Taj Building, 9, G. B. Road, Delhi 6.

British Machinery Supplies Co.—Nai Sarak, Delhi 6.

Choudhari Metal Industries Pvt. Ltd.—1469, Darba Kalan, Delhi 6.

Dadiala Engineering Works.—27, D.L.F., Najafgarh Road, New Delhi 15.

Delhi Engineering Co.—Naya Bazar, Delhi 6.

Delhi Engineering Works Pvt. Ltd.—Azadpur O.T. Road, Delhi 33.

Dehru Mal Kapur & Sons.—66, G. B. Road, Delhi 6.

 Diwan Chand & Co.—74, G. B. Road, Delhi 6.
 Escorts Ltd.—Pratap Building, Connaught Circus, Post Box No. 187, New Delhi.

Freewheels (India) Ltd.—Kundan Mansions, 2A/3, Asaf Ali Road, New Delhi 1.

Ganesons Machinery Corporation.—164, Kamla Market, New Delhi 1.

Ganga Engineering Works.—B-1/9, Rajouri Gardens, New Delhi 15.

Rew Delhi 15. Gupta Iron & Works Pvt. Ltd.—29, Najafgarh Road, New Delhi 15.

Handa Ice & General Machinery Supply Corporation.—66, G. B. Road, Delhi 6.

Hari Sales Agency.—39, G. B. Road, Delhi 6.

Harish Bros. (Regd.).—Naya Bazar, Delhi 6.

Hindustan Electric & Mill Store Co.—58, G. B. Road, Delhi 6. Hindustan Engineering & Mfg. Co.—Njfg Road, New Delhi 15.

Hindustan Tools Mfg. Co.—1503, Daryaganj, Delhi 6, H. M. Doyal & Co.—55, G. B. Road, Delhi 6.

Ice Machinery Co.-66, G. B. Road, Delhi 6.

Ideal Piston Mfg. Co.—Old Rontak Road, Delhi 35.

Imperial Technical Works.—Mile 6/3, Rohtak Road, Shakurbasti, P.O. Punjabi Bagh, Delhi 34.

Indo-Europa Trading Co.—Chandni Chowk, Delhi 6.

J. Mahabeer & Co. Pvt. Ltd.—Netaji Subhas Marg, Delhi 6.

Jackson & Co.—29, Kamla Market, New Delhi 1. Jay Dee Brothers.—63, G. B. Road, Delhi 6.

Jolly Engineering Works,—3-4, Roop Nagar, Subzimandi, Delhi 7.

Kapila Brothers.—Naya Bazar, Delhi 6.

Karam Singh Gian Singh Chhabra.—Naya Bazar, Delhi. Karori Engineering Works.—16 Najafgarh Road, Industrial Area A, New Delhi 15.

Kriros Pvt. Ltd.—Ltd. 173, Kamla Market, New Delhi 1. Krishna Water Supply Co.—G. B. Road, Delhi 6.

Lakshmi Engineering Works.—Hauz Kazi, Delhi 6.

Laldee Pvt. Ltd.—Vijay Press Building, Naya Bazar, Delhi 6.

Machinery & Tools Co.—Street 11, Sadar Bazar, Delhi 6, Makhan Singh Amar Nath.—77, G. B. Road, Delhi 6, Manilal & Brothers.—Chawri Bazar, Delhi 6.

Manjeet Engineering Industries.—71/1, Najafgarh Road, New Delhi 15.

Mediratta Engineering Corporation.—80, G. B. Road, Delhi 6,

Milhard & Co.—Hauz Qazi, Delhi 6.

Mills Store Co. (Delhi) Pvt. Ltd.—65/1, G. B. Road, Delhi 6.

Murarka Engineering Works.—28/37, Najafgarh Road, New Delhi 15.

National Electrical & Engg. Corpn.—100, Kamla Market, New Delhi 1.

Nav Bharat Engineering Co.—110, Naya Bazar, Delhi 6.

New India Mfg. Co.—2851, G. B. Road, Delhi 6.
Oriental Engineering Works P. Ltd.—78 G. B. R.

Oriental Engineering Works P. Ltd.—78, G. B. Road, Delhi 6.

Pindi Das & Co., P. Ltd.—81, G. B. Road, Delhi 6.

Planners & Engineers (Hindi) P. Ltd.—42, G. B. Road, Delhi 6.

Precision Machinery Co.—51, G. B. Road, Delhi 6.

Prem Freinagring Works 22 1 1

Prem Engineering Works.—22, Industrial Estate, New Delhi 20.

Premier Machines P. Ltd.—59, Najafgarh Road, New Delhi 15.

Raj Engineering Works Pvt. Ltd.—8/32, Ajmeri Gate, Delhi 6.

Rameshwar Dass Dwarkadasa Pvt. Ltd. Chari R.

Rameshwar Dass Dwarkadass Pvt. Ltd.—Chawri Bazar, Delhi 6.

Raunaq & Co., Pvt. Ltd.—1/23B, Asaf Ali Road, New Delhi I.

R. D. Sehgal & Sons.—79, G. B. Road, Delhi 6.

Saraf Industries.—Raghuganj, Chawri Bazar, Delhi 6.

Shree Bharat Industries.—7, Daryaganji, Delhi 6.

Shree Mahalakshmi Engg. Works.—27, D. L. F. Ind. Area, Najafgarh, New Delhi 15.

S. C. Kumar & Co.—59, G. B. Road, Delhi 6.

S. D. Nanda & Sons.—56, G. B. Road, Delhi 6. S. D. Sharma & Co.—58, G. B. Road, Delhi 6.

Shakti Pulley Manufacturing Co.—5391-92, Light Building, G. B. Road, Delhi 6.

Sharda Machinery Corpn.—11, Pusa Road, New Delhi 5. Skoda (I) Pvt. Ltd.—National Insurance Bldg., Parliament Street, New Delhi 1.

Standard Spare & Mechanical Works.—2443, G. B. Road, Delhi 6.

Supreme India Trading Co.-77, G. B. Road, Delhi 6.

Supreme Trading Corporation .- 2877, Shah Ganj, G. B. Road, Delhi 6.

Triveni Engineering Works Ltd.-National Ins. Bldg., 5, Parliament Street, New Delhi 1.

United Engineering Industries.—20/11, Asaf Ali Road, New Delhi 1.

United India Machinery Agencies.—47, G.B. Road, Delhi 6. Universal Engineering Corpn.—34, DLF, Najafgarh Road, New Delhi 15.

Vijay Machinery Corpn.—9-B, Jindal House, Asaf Ali Road, New Delhi 1.

Vijay Metal Industries. -3640, Gali Lohewali, Delhi 6. Western Manufacturing Co. (Delhi) Pvt. Ltd.-8, D. B. Gupta Road, New Delhi 1.

# METAL MFRS. & MERCHANTS

# Manufacturers of

Sheets, Strips and Coils, Zinc Oxide, Red Lead Litharge, non-Ferrous Tubes, Rods and Sections.

# KAMANI METALS & ALLOYS LTD.

Kamani Tubes Pvt. Ltd.

Kamani Metallic Oxides Pvt. Ltd.

United India Life Bldg., F Block, Connaught Place, New Delhi-I. Phones: 45055, 45056. Telex: 410

#### OIL SEALS & 'O' RINGS

A-kor Seal.—24, Okla Industrial Estate, New Delhi 20. Crown Sales Corporation.—Patel Motor Market, Kashmere Gate, Delhi 6.

India Auto Industries.-Patel Market, Kashmere Gate, Delhi 6.

New Crown Industries. -308/4/B, Shahzada Bagh, Old Rohtak Road, Delhi 7.

Rawel Industries.—517, Katra Ishwar Bhavan, Delhi 6.

#### PAINTS, ENAMELS AND VARNISHES

Bawa Paints (Pvt.) Ltd.—202, Katra Baryan, Fatehpuri, Delhi 6.

B. Kersar Singh & Sons.—Katra Baryan, Fatehpuri, Delhi 6.

Bharat Chemical Works.—7584, Nai Basti, Delhi 6.

Dewan Chand & Sons.—41, G. B. Road, Delhi 6.

Duarka Dass & Sons.—163, Katra Barien, Delhi. Ford Paint Co.—2002, Lal Kuan Bazar, Delhi 6.

Harish C. Khosla & Co.—Zinat Mahal, Lal Kuan, Delhi 6.

India Trading House.—Fatehpuri, Delhi 6. Khurana Bros.—1742, Nai Basti, S. P. Mukherjee Marg, Delhi 6.

Punjab Colour & Varnish Co.—Katra Baryan, Fatehpuri, Delhi 6.

Ramakrishna Paint & Hardware Mart.-3437H, Hauz

Qazi, Delhi 6. Saluja & Co.-Katra Barien, Delhi 6.

Suresh Brothers.—64, G. B. Road, Delhi 6.

Thakkar Trading Co.-7/2, Raj Nagar, Delhi 5.

United Commercial Syndicate.—Fatchpuri, Delhi 6.

W. S. Bhag Singh & Sons.—Fatehpuri, Delhi 6.

# PAINT & VARNISH MANUFACTURERS & DEALERS

Angle Dutch Paint Colour & Varnish Works (Pvt.) Ltd.— 50, Najafgarh Road, New Delhi 15.

Ashoka Paint & Chemical Works,-4411, Nai Sarak, Delhi 6.

Asia Chemicals Ltd.—3, E. Park Road, Delhi 5.

Asian Paint (I) Pvt. Ltd.-6/9, E. Patel Nagar, New Delhi 8.

Bhagsons Paint Industries.—16-A, D.L.F. Area, Najafgarh Road, New Delhi 15.

Blundell Eomite Paints Ltd.—9/1, Asaf Ali Road, New

British Paint (India) Ltd.—12/3, Asaf Ali Road, New Delhi 1.

Delhi Paint Corpn.—M-51, Connaught Circus, New Delhi 1. Imperial Paint Chemical Works-XV/11204, Motiakhan Idgah Road, New Delhi 1.

Jallo Subsidiary Industries Co. India Ltd.—7/33, Daryaganj, Delhi 6.

Jumna Paint, Colour & Varnish Works.—Netaji Subhas

Marg, Delhi 6. Kailash Brothers Pvt. Ltd.—Near Grindlay's Bank, Chandni Chowk, Delhi 6.

Kohinoor Paint, Colour & Varnish Works.—155, Katra Baryan, Delhi 6.

Mera Chemicals.—G. B. Road, Delhi 6.

Metro Paint Industries.—260, Kamla Market, New Delhi 1.

Northern India Paint, Colour & Varnish Co. Pvt. Ltd.-4/90, Connaught Circus, New Delhi 1.

Roshanara Paints & Varnish Works.—Roop Nagar,

Subzi Mandi, Delhi 7. Shalimar Paints, Ltd.—9A, Connaught Place, New Delhi 1.

Spraylae Paint Corporation.—9, Netaji Subhas Marg, Delhi 6.

#### PIPES AND FITTINGS MFRS. & MERCHANTS

Amar Nath Bhaskar Sons .- H.O., Ishwar Nagar, New Delhi 1.

Agairam & Sons.—Sirkiwalan Bazar, Delhi 6. Anand Pulp Water Supply Co.-4958, Hauz Kazi, Delhi 6. A. S. Shamser Singh & Co.—15, Rupnagar, Subzimandi, Delhi.

Associated Tube Wells (India) Pvt. Ltd.—12, Scindia House, New Delhi.

Banarshi Shah & Co.-Hauz Qazi, Delhi 6.

Behari Lal & Co.-Hauz Kauz, Delhi 6.

Delhi Hardware Store.—1917, Sirkiwalan, Delhi 6.

Delhi Pipe Stores.—2868, Sirkiwalan, Delhi 6.

Gayfield & Co.—Chawri Bazar, Delhi.

Harbans Singh Mehta & Co.—33, Regal Bldg., Parliament Street, New Delhi 1.

Hindustan Trading Co.—H. Kazi, Delhi 6.

Indian Hume Pipe Co., Ltd.—Sarai Rohilla, Delhi 35.

Iron Traders P. Ltd.—Sirkiwalan Bazar, Delhi 6.

Jain Brothers.—Jain Bhavan, Hauz Kazi, Delhi 6.

John Tinson & Co. Pvt., Ltd.—54, Janapth, New Delhi 1.

Krishan Water Supply Co.—G. B. Road, Delhi 6.

Pershad & Sons.—Chawri Bazar, Delhi 6.

P. Madanlal & Co.—Chawri Bazar, Delhi 6.

Ratanji Bhagwanji & Co.—3760, Chawri Bazar, Delhi 6.

Raunaq & Co., Pvt. Ltd.—1/23B, Asaf Ali Road, New Delhi 1.

Spunpipe & Construction Co. of India Ltd.—9·A/41, W. E. A., Karol Bagh, New Delhi 5.

Vinod Metal Industries.—29, Chawri Bazar, Delhi 6.

# PLASTIC PRODUCTS MANUFACTURERS & DEALERS

Aarcee Plastic & Metal Industries Pvt. Ltd.—Above Bank of Baroda, Sardar Bazar, Delhi 6.

Bharat Leather Works.—3380, Bagehi Achheji, Bara Hindu Rao, Delhi 6.

Globe Products (India).—24, Friends Colony, G. T. Road, Shahdara, Delhi 32.

Hindustan Plastics.—923, Fiaz Road, Delhi 5.

Jaessbro & Co.—23-B/6, New Rohtak Road, New Delhi 3. K. K. Bubby Industries.—28, Sadar Thana Street, Delhi 6.

Leather & Artistic Craft Ltd.—3616, Netaji Subash Marg, Daryaganj, Delhi 6.

Maidan Brothers.—Sadar Bazar, Delhi 6.

Novel Plastics.-32, Ansari Market, Delhi 6.

Plastic Packers .- 6-F, Connaught Place, New Delhi 1.

Shriram Polymers Ltd.—4-E, Rani Jhansi Road, New Delhi I.

# PUMPS & PUMPING SETS MANUFACTURERS & DEALERS

Agricultural Engineering Co.—3E/7, Jhandewalan Extension, New Delhi 1.

Flowmore Pvt. Ltd.—K. 40, Covnaught Circus, New Delhi 1.

Hindustan Industrial Corpn.—K-40, Connaught Circus, New Delhi 1.

Hindustan Trading Co.—Hauz Qazi, Delhi 6.

Johnston Pumps (I) Ltd.—28, Barakhamba Road, New Delhi.

Kirloskar Brothers Ltd.—Jeevan Tara Bldg., 5, Parliament Street, New Delhi 1.

Modi Industries (S.C.) Pvt. Ltd.—117-M Block, Connaught Circus, New Delhi.

Raj Engineering Works Pvt. Ltd.—8/32, Ajmeri Gate, Delhi 6.

Trading Engineers.—3/4-A, Asaf Ali Road, New Delhi 1.

Water Supply Specialists Pvt. Ltd.—4E/13, Jhandewalan Extension, New Delhi 55.

#### RADIO PARTS

Acme Radio Corporation.—290, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Advance Electronics.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Ahuja Radios.—3, Okhla Industrial Estate, New Delhi 20. Allgemein Sono Industries.—1903, Gandhi Chowk, Delhi 6. Alpha Radio & Novelties Pvt. Ltd.—D-56, Defence Colony, New Delhi 3.

A. N. Ramji Das & Co.-7/36, Daryaganj, Delhi 6.

Anil Industries.—1781, Hauz Suiwalan, Daryaganj, Delhi 6.

Arun Electronic Industries.—5A, Banarsi Das Market, Timarpur, Delhi 7.

Asiatic Electronic Corporation.—7326, Original Road, Karolbagh, New Delhi 5.

Associated Radio & Elec. Co.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Chowk, Deini 6.

Atlas Radio Traders.—A-3/15, Asaf Ali Road, New Delhi I.

Bangson Electronic Industries.—65, Rohtak Road, New Delhi 5.

Bansal Radio Corpn.-30/8-9, Shakti Nagar, Delhi 7.

British Radio & General Supply Co.—Chandni Chowk, Delhi 6.

Capital Radio Co.—Chandni Chowk, Delhi 6.

Chawla Radios.—286, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Crescent Capacitors.—S-51, Janta Market, Rajouri Garden, New Delhi 27.

Delhi Radio Co.—Chandni Chowk, Delhi 6.

Deepak Industries.—2290, Telewara, Bahadurgarh Road, Delhi 6.

Dilwali Traders.— E-22, N.D.S.E. (Part II) Market, New Delhi 16.

Eastern Radio & General Supply Co.—5E, Connaught Place, New Delhi 1.

Electric Radios & Electronics Industrics.—F-28, D. B. Gupta Market, Karolbagh, New Delhi 5.

Electronics Ltd.—12-A, Connaught Place, New Delhi 1.

Electronic Components Corporation.—264, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Eurasia Radio Corporation.—3784, Lohewali Gali, Chawri Bazar, Delhi 6.

Gaylord Electronics.—3650, Thana Street, Subzi Mandi, Delhi 7.

G. C. G. Electronics.—Lajpat Rai Market, Chandni Chowk, Delhi 6.

G. C. G. Radio Corporation.—1, Ansari Road, Daryaganj, Delhi 6.

General Radio & Appliances Pvt. Ltd.—27, Netaji Subhas Marg, Delhi 6.

General Radio & Elect. Co.—174/52, Ajmalkhan Road, Karolbagh, New Delhi 5.

Hallex Electronics Corporation.—1844, Electric Market, Bhagirath Palace, Chandni Chowk, Delhi 6.

Hindustan Electronics (Pvt.) Ltd.—1801, Chandni Chowk, Delhi 6.

Hindustan Radio Corpn.—3487, Netaji Subhas Marg, Delhi 6.

India Radio Co.—26, Bara Khamba Road, New Delhi 1.

India Radio & Elect. Corpn.—Ajmal Khan Road, New Delhi 5.

Indian Agencies.—1681/18, Mangal Market, Chandni Chowk, Delhi 6.

Indian Building Elements Co. (Pvt.) Ltd.—Lakshmi Nivas, 8, Lady Hardinge Road, New Delhi I. Indian Radio Corpn. (Pvt.) Ltd.-4-A, Roshanara Road, Delhi 7.

J. S. Electronics.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Jupitor Radios.-20, Masjid Road, Jangpura, New Delhi 24.

Kapoor Radios.—Stall No. 25, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Kayvee Radios .- 1204, Naiwada No. 5, Karol Bagh, New Delhi 5.

Kidarnath Mehra & Sons.—1137, Chandni Chowk, Delhi 6. Kohil Radio Mfg. Co.-D-11, Kirti Nagar, Industrial Area, New Delhi 15. Lakhanpal Pvt. Ltd.—Jeewan Udyog Bldg., Asaf Ali

Road, New Delhi 1.

Madan Radio Corporation .- 565, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Masterphone Radio & T.V. Industries.—2, Ansari Road, Daryaganj, Delhi 6.

Micro Electronics Corporation .- 5160, Kolhapur Road, Subzi Mandi, Delhi 7.

Modern Radio Components Co.—Mangal Market, Chandni Chowk, Delhi 6.

Modern Trading Co. (Delhi) Pvt. Ltd.-M-55, Conn. Circus, New Delhi 1.

National Radio Co.—Bhagirath Palace, Chandni Chowk, Delhi 6.

National Ekco Radio & Engg. Co. Ltd.—27, Netaji Subhas Marg, Faiz Bazar, Daryaganj, Delhi 6.

National Radio Corporation.—2, D.L.F. Industrial Area, Najafgarh Road, New Delhi 15.

Omega Radio Corporation.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Oriental Radio Corporation.—12/4, Asaf Ali Road, New

Parco.—16B, Connaught Place, New Delhi 1.

Phillips India Ltd.—68, Najafgarh Road, New Delhi 15. Prestige Electronics Pvt. Ltd.—16-B, Connaught Place, New Delhi 1.

Radio & Electrical Appliances.—J-2/19, Rajouri Garden, New Delhi 27.

Radio Electronics Corpn. Pvt. Ltd.—3/17A, Asaf Ali Road, New Delhi 6.

Radiola Corporation.—18-A, Najafgarh Road, Industrial Area, New Delhi 15.

R. C. Radio Corpn.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Reed Electronics Industries.—New Rohtak Road, Karolbagh, New Delhi 5.

Regent Electronic Industries.—117-E, Kamla Nagar, Delhi 7.

Saigal Radios.—Pvt. Ltd.—Bhagirath Palace, Chandni Chowk, Delhi 6.

Saluja Radio & Transistor Co.—71, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Singh Radio Co. (I) Pvt. Ltd.—21, Ansari Road, Daryaganj, Delhi 6.

Singhbro Radio Co.—Plaza Cinema Buildings, New Delhi I. Singhson Radio Co.—8380/6, Roshanara Road, Delhi 7. Star Radio Industries (India).—162-D, Kamla Nagar,

Delhi 7.

Stead Electronic Industries.—17-Ua, Jawahar Nagar, Delhi 7. Telefunken India Ltd.—G4, NDSE, Part I, New Delhi 3.

Telestar Radio.-362, Lajpat Rai Market, Chandni Chowk, Delhi 6. Teen Murti Electronics.—12, Champet Rai Jain Building,

Yusaf Sarai, New Delhi 16.

Toyo Television Co.-3, Maharaja Lal Lane, Kashmiri Gate, Civil Lines, Delhi 6.

Union Radio & Appliances Pvt. Ltd.—K3, NDSE, Part I, New Delhi 3.

615

Vijay Radio Corporation.—Shop No. 296, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Wings Electronics.—309, Lajpat Rai Market, Chandni Chowk, Delhi 6.

Weston Electronics (Pvt.) Ltd.—25, National Park, Near Lajpat Bhavan, New Delhi 24.

Yuki Transistor Co.—3, Maharaja Lal Lane, Civil Lines, Delhi 6.

# RUBBER PRODUCTS MANUFACTURERS

Aeroshyamm (Regd.).—22, First Floor, Swadeshi Market, Sadar Bazar, Delhi 6.

American Rubber Mills Co.-G. T. Road, Shahdara, New Delhi 32.

Atlas Rubber Industries.—17 DLF Extn., Najafgarh Road, New Delhi 15.

Avon Rubber Industries.—69, Najafgarh Road, New

B. N. Rubber Works.—9, Barakhamba Road, New Delhi. Delhi Rubber Industries.—Radhapuri, Gandhinagar, Delhi 6.

East India Rubber Works Pvt. Ltd.—16/B, Asaf Ali Road, New Delhi.

Enkay (I) Rubber Co.—156-D, Kamla Nagar, Delhi 7.

Firestone Tyre & Rubber Co. of India Ltd.—Nicholson Road, Delhi 6. General Rubber Co. Pvt. Ltd.—P.O. Box 490, New Delhi 1.

Helix Latex Industries.—Ashiada-e-Iqbal, C-11/6, Model Town, Delhi 6.

Kalsi Tyre Retreading Factory Pvt. Ltd.—11, D. L. F., Industrial Area, Najafgarh Road, New Delhi 15.

India Tyre & Rubber Co. of India Ltd.—3, Hamilton Road, Delhi 6. Indian Tyre Retreading Co.—21-A, Najafgarh Road,

New Delhi 15. Kanwal Rubber Products.—1, D. L. F., Industrial Area,

New Delhi 15. National Rubber Manufacturers Ltd.-4/23B, Asaf Ali

Road, New Delhi. National Tyre & Rubber Co. of India Ltd.—11B, Asaf Ali

Road, New Delhi 1. Sawhney Rubber Industries.—616, Loni Road, Delhi Shahdara 32.

Saini Rubber Industries.—609, Hamilton Road, Delhi 6. Swastik Rubber Industries.—4/26, Kirti Nagar, Industrial Area, New Delhi 15.

Vinod Rubber Industries.—74, Rani Jhansi Road, New Delhi 55.

## SANITARY ENGINEERS & SANITARY GOODS MFRS. & DEALERS

Amar Nath Nayar & Sons.—K. Baryan, Delhi 6.

Arail Brothers.—Chawri Bazar, Delhi 6. Balmukand Gupta & Sons.—30/1, E. Patel Nagar, Delhi 8.

Delhi Plumbers & Sanitary Engineers.—3380, H. Quazi, Baga Street, Delhi 6.

Delhi Sanitary and Water Supply Co.—Hauz Qazi, Delhi 6. D. P. Gupta & Co.—1/6-B, Ajmeri Gate Extn., New Delhil. D. S. Bawa & Co.—14, Barakhamba Road, New Delhi.

Gayfield & Co.-Chawri Bazar, Delhi 6.

Himalaya Trading Co.—Fatehpuri, Delhi 6. M. J. Engineering Works.—1327, Katra Hiralal, Ajmeri Gate, Delhi 1.

Mahabir Pershad & Sons.—Chawri Bazar, Delhi 6. Munshi Lal Om Prakash.—Chawri Bazar, Delhi 6.

Sanitary Goods Manufacturers.—27, Najafgarh Road, New Delhi 15.

S. D. Marker & Co., Pvt. Ltd.—57, Punchkuin Road, New Delhi I.

Sharma & Co. R. P.—Sultan Singh Bldg., Kashmere Gate, Delhi 6.

Sunderson & Co., S. N.—D. B. Gupta Road, Delhi 1. Tayal Bros. Pvt. Ltd.—Outside Ajmeri Gate, Delhi 6. Verma Bros.—18/90, Connaught Circus, New Delhi 1. Vinod Metal Industries.—29, Chawri Bazar, Delhi 6.

# SCIENTIFIC INSTRUMENTS MANUFACTURERS & DEALERS

Adair, Dutt & Co. (India) Pvt. Ltd.—21, Asaf Ali Road, New Delhi 1.

Allied Scientific Engg. Corpn.—10/15, Dakhshni Marg, Rajendra Nagar, New Delhi 5.

Andhra Scientific Co. Ltd.—3/10, Asaf Ali Road, New Delhi 3.

Apothecaries Sundries Mfg. Co.—19, Amrit Kaur Market, New Delhi 1.

Associated Instrument Manufacturers (India) Pvt. Ltd.—35, Najafgarh Road, New Delhi 15.

Associated Instrument Mfrs. (I) Pvt. Ltd.—26/27, Asaf Ali Road, New Delhi 1.

A. W. & Co.-3499, Chawri Bazar, Delhi 6.

Batra & Co.-4-136, Defence Colony, New Delhi 3.

Capital Scientific Instruments Co., Pvt. Ltd.—Netaji Subhas Marg, Delhi 6.

Cirugia De Lux (Pvt.) Ltd.—H/89, South Extension, Part I, Ring Road, P.O. Box No. 3053, New Delhi 3.

C. Z. Instrument India P. Ltd.—"Akash Deep" Bldg., 26-A, Barakhamba Road, New Delhi I.

Darbara Singh & Sons.—29, Netaji Subhas Marg, Delhi 6. Delhi Scientific Works.—Ajmere Gate, Delhi 6.

Dutta Scientific Works.—3, Siri Ram Building, Jawahar Nagar, Delhi 7.

Ragar, Della 7.

Electric Instrumentation.—Siddiq Building, G. B. Road,
New Delhi 6.

Empire Scientific & Surgical Works.—Naya Bazar, Delhi 6. Eskay Trading Corporation.—94, Darya Ganj, Delhi 6.

Eskay Trading Corporation.—94, Darya Ganj, Delhi 6.

Friends Surgical Co.—Mangal Market, Chandni Chowk,
Delhi 6.

General Radio & Appliances Ltd.—27, Faiz Bazar, Darya Ganj, Delhi 6.

Gordhandas Desai Pvt. Ltd.—4/2, B. Jwala Mansion, Asaf Ali Road, New Delhi.

Hindustan Scientific Instruments Co.—J-114A Kirti Nagar Industrial Area, New Delhi 15.

Nagar Industrial Area, New Delhi 15.
International Equipment Corporation Pvt. Ltd.—12,

Lady Hardinge Road, New Delhi 1. Japsin Thermometers Mfrs.—3813, David Street, Faiz Bazar, Daryaganj, Delhi 6.

Modern Scientific Instruments Co.—463, Chandni Chowk, Delhi 6.

National Scientific Instrument Co.—38, U.B. Block Jawahar Nagar, Delhi 6.

Neulite Engineering Copn.—63-64, Hari Nagar Ashram, Mathura Road, New Delhi 14.

Physical Electronics.—30, Malka Ganj Road, Delhi 7.

Precision Scientific Equipment Corpn.—16, Patel Road, Sardar Patel Nagar, Delhi 8.

Republic Scientific Supply Co.—Munshi Niketan, Asaf Ali Road, New Delhi.

Royal Rubber Works.—1580, Bhagirath Palace, Chandni Chowk, Delhi 6.

Sahanisons Pvt. Ltd.—4/14/A, Asaf Ali Road, Delhi 2.
 Salooja Brothers Pvt. Ltd.—8/34, Industrial Area, Kirti Nagar, New Delhi 15.

Scientific Equipment Works.—1/777, Nicholson Road, Delhi 6.

Scientific Instrument Co. Ltd.—B/7, Ajmeri Gate Extn., New Delhi 1.

Sehgal Sons.—A-14/3, Asaf Ali Road, New Delhi 1.

Stead Electronics Industries.—17-U.A. Jawahar Nagar, Delhi 7.

Toshniwal Bros. Pvt. Ltd.—3E/8, Jhadewalan Extn., New Delhi 1.

Towa Optics (India) Pvt. Ltd.—4, Darya Ganj, Delhi 6.

United Technicians Corpn.—6504, Bara Hindu Rao, Delhi 6.

Upper India Scientific Works.—1720, Mori-Gate, Delhi. Up-To-Date Optical Works (Regd.).—21, Beaden Pura,

Widson Scientific Works.—10, West Sadar Thana Road, Delhi 6.

#### SURGICAL INSTRUMENTS

Atlas Surgical Co.—377, Lajpat Rai Market, Delhi 6.

Capital Surgical Co. Pvt Ltd.—7-B, Netaji Subhas Marg, Delhi 6.

International Surgical Works.—Veena Nivas, 7/4A-3, Jawahar Nagar, Delhi-7.

Pacific Surgical Co., 18/40, Shaktinagar, Delhi 6.

#### TEXTILE MILLS

Ajudhia Textile Mills Ltd.—P. O. Ajudhia Mills, Delhi 33. Birla Cotton Spg. & Wvg. Mills Ltd.—P.O. Birla Lines, Delhi 7.

Delhi Cloth & General Mills Co. Ltd.—Bara Hindu Rao, Delhi 6.

Jagatjit Cotton Textile Mills Ltd.—Thapar House, 124, Janpath, New Delhi 1.

Jawala Textile Mills.—Pahwa Mansion, 1/11, Asaf Ali Road, New Delhi 1.

Swatantra Bharat Mills Ltd.—Najafgarh Road, New Delhi 15.

Usha Spg. & Wvg. Mills Ltd.—Jeevan Vihar, Parliament Street, New Delhi 1.

# TIN PRINTERS AND CONTAINER MANUFACTURERS

Hindustan Tin Works Pvt. Ltd.—Greater Kailash 1, New Delhi 14.

India Box & Carton Makers.—2322, Teliwara (Rui Mandi), Delhi 6.

Metal Printers Co., The.—3-B, Jangpura, Mathura Road, Delhi.

Tin Can Manufacturing Co.,—6-DLF Industrial Estate, Najafgarh Road, New Delhi 15.

Tin Printers Pvt. Ltd.—6, D. L. F., Industrial Area, Najafgarh Road, New Delhi 15.

Tin Printing & Metal Works Ltd.—Kamla Nagar, Subzimandi, Delhi 7.

#### TRAVEL AGENTS

Everett Travel Service.—11-C, Prem House, Connaught Place, New Delhi 1.

N. Jamnadas & Co.—Hotel Metro, Janpath, New Delhi.
Orient Express Co. Private Ltd.,—10, Janpath, New Delhi 1.

Sita World Travel (I) Pvt. Ltd.—F-12, Connaught Place, New Delhi 1.

Shiv Dayal Soin & Sons (Pvt.) Ltd.—S. P. Mukerji Marg, Delhi 6.

Trade Wings Pvt. Ltd.-60, Janpath, New Delhi 1.

Travel Corporation (India) Pvt. Ltd.—C-35, Connaught Place, New Delhi 1.

A. G. Correia & Co.—31st January Road, Panaji.

Agencia Comercial Maritima.-Damodar, 2nd Floor, Vasco Da Gama.

Agencia Comercial Internacional.—Dr. Cunha Gonsalves Road, Panaji.

Agencia Geral Pvt. Ltd.—P.O. Box 15, Vasco Da Gama. Agencia Ultramarina Pvt. Ltd.—P.O. Box No. 42, Vasco

Agrawal Minerals (Goa) Pvt. Ltd.—Station Road, Margao. Arrow Silicate Co. Pvt. Ltd.—Curti, Ponda.

Auto Service Ltd.—Post Box 39, Vasco Da Gama.

Azavedo Bros.-P. O. Box No. 94, Panaji.

Bento Miguel Fernandes & Filhos Ltda.—15, Rua D. Joao de Castro, Panaji.

Carrybon Pvt. Ltd.—Chowgule House, Mormugao Har-

Casa Commercial Goa.—Vasco Da Gama.

Casa International.—P.O. Box No. 81, Panaji.

Chowgule & Co. P. Ltd.—Chowgule House, Mormugao

Cosme Matias Menezes Pvt. Ltd.-Rua S. Tome, Panaji. Cosme Pharma Laboratories .- Curti, Ponda.

Costa & Co. Pvt. Ltd.-P.O. Box No. 16, Margao.

Damodar Mangalji & Co. (Pvt.) Ltd.—Afonso de Albuquerque Road, Panaji.

D. M. Nadkarni & Sons.—Close to Post Office, Margao. D. N. Hemmady & Co., P.O. Box 39, Margao.

Emco Goa Pvt. Ltd.—Post Box 54, Margao.

Empreteiros Gerais Pvt. Ltd.—Station Road, Margao.

Froilano C. R. Machado & Sons.-P. B. Box 71, Vasco Da Gama.

Goa Carbon Ltd.-Velho's Building, Rua Conde De Torres Novas, Panaji, Goa.

Goa Pesticides Pvt. Ltd.—Chowgule House, Mormugao

Harbour. Goa Scientific & Chemical House.—P.O. Box No. 57, Panaji.

Goa Steel Traders.—P.O. Box No. 165, Panaji.

Goa Transport Ltd.—Rua Abade Faria, Margao.

Gold Star Machinery & General Company-P.O. Box No. 69, Dwarka Bldg., Margao.

Hiralal & Company.—Thakker House, Vasco Da Gama. I. A. Gonsalves & Co.—P.O. Box No. 75, Panaji.

Italab (Goa) Private Ltd.—Lotlikar Bldg., Margao.

Lima Leitao & Co. Ltd.—Post Box 3, Mormugao Harbour.

Lima Minerals Pvt.—Mormugao Harbour.

Lokure Brothers.—P.O. Box No. 21, Margao.

Matches Goa P. Ltd., -Curti, Ponda.

Menezes & Cia.—Rua D. Joao De Castro, Panaji.

Mingoa Pvt. Ltd.—Post Box 125, Panaji.

Mohidin Industries.—P.O. Box 12, Vasco Da Gama.

M. S. Talaulikar & Sons P. Ltd.—Hira Mahal, Dr. Atmaram Borker Road, Panaji.

Orient Goa Pvt. Ltd.—P.O. Box No. 123, Margao.

Panduronga Timblo Industries.—Post Box 242, Margao. Pedro Fernandes & Company.—Rua D. Joao de Castro, Panaji.

With Best Compliments from

House of Gosalias

MARGAO

SHANTILAL KHUSHALDAS & BROS. PVT. LTD.

Importers, Mine Owners & Exporters of Mineral Ore & Representatives.

MARGAO - GOA

S. KANTILAL & CO., PVT. LTD.

Importers, Mine Owners & Exporters of Mineral Ore

MARGAO - GOA

**GOSALIA & COMPANY** 

Importers & Exporters

MARGAO - GOA

#### GOSALIA SHIPPING PVT. LTD.

Stevedoring, Clearing, Forwarding and Ship's Agents VASCO-DA-GAMA

> Regd. Office: Gosalia Building Margao-Goa.

P. G. Virgincar & Co.-P. B. 38, Margao. Prabhakar Gajanan Naik & Brothers.—P.O. Box No. 198, Margao.

Ramnata Sinai Caro & Co.-P.O. Box 3, Margao.

Rashid Khodadad & Company .- Dr. Atmaram Borkar Road, Panaji.

Rupsi Topan & Co.-P.O. Box No. 121, Panaji.

Salitho Ores Pvt. Ltd.—P.O. Box No. III, Vasco Da Gama. Sesa Goa Pvt. Ltd.—P.O. Box 125, Panaji.

S. Kantilal & Co. Pvt. Ltd.—Post Box 114, Margao.

Shantilal Khushaldas & Bros.—Post Box 35, Margao.

Sukdow Industrial.—P.O. Box No. 208, Margao.

Sociedade de Fomento Industrial.—Vila Flores de Silva, Rua Luis Miranda, Margao.

Subraya & Co. Pvt. Ltd.—P.O. Box No. 33, Margao. Thakkers Travel Service.—Thakker House, Vasco Da

Timble Private Ltd.—Margae.

Tyresoles Goa Pvt. Ltd.—Curti, Ponda.

Universal Agencies.—P.O. Box No. 111, Panaji.

V. M. Salgaonear & Brother Pvt. Ltd.—Post Box 14, Vasco Da Gama.

V. N. Bandecar.—Post Box 1, Panaji.

V. S. Dempo & Co. Pvt. Ltd.—Post Box 34, Panaji.

#### GUJARAT—COMMERCIAL FIRMS

#### Ahmedabad

Ahmedabad Eagle Engineering Enterprises Pvt. Ltd.—410, Near Naroda Road Railway Crossing, Ahmedabad 2.

Ahmedabad Electricity Co. Ltd.—Electric House, Lal Darwaja, Ahmedabad 1.

Ahmedabad Flexible Tube Mfg. Co. Pvt. Ltd.—Opp. Vallabhnagar Society, Ahmedabad 2.

Ahmedabad Ice & Cold Storage Pvt. Ltd.—Outside Gomtipur, Ahmedabad 21.

Ahmedabad Star Engineering Works Pvt. Ltd.—Outside Prem Darwaja, Ahmedabad 16.

Air Control & Chemical Engineering Co. Ltd.—Bank of India Bldg., Bhadra, Ahmedabad 1.

Alchemi Pvt. Ltd.—Opp. Potaliya Talaw, Saraspur, Ahmedabad 2.

Alcock Cement Pipes & Concrete Works.—Khadia, Char Rasta, G. Road, Ahmedabad 2.

Allied Textile Leather Industries.—P. B. No. 45, Inside Raipur Gate, Ahmedabad 1.

Ambica Steel Tubes Ltd.—Shree Ambica Mills Premises, Near Kankaria, Loco Siding, Ahmedabad.

American Oil & Trading Co.—Revadi Bazar, Post Railway Pura, Ahmedabad 2.

Anil Pvt. Ltd.—2209/3 Manekchowk, Ahmedabad 1. Anil Starch Products Ltd.—Anil Road, Ahmedabad 2.

Arkoy Industries.—137, New Cloth Market, Ahmedabad 2.

Argon Engineers.—Khadia Char Rasta, Mehta Estate, Ahmedabad 1.

Ashisha Engineering Works.—S-47, Industrial Estate, Bapunagar, Ahmedabad 21.

Asian Food Industries.—Near Narai Mandir, Behind Nagri Hills, Gomtipur Road, Ahmedabad 21.

Associated Pulp & Paper Mills Ltd.—948, Rajamehta's Street, Ahmedabad 1.

Automotive Mfrs. Pvt. Ltd.—Mirzapur Road, Ahmedabad 1.

Avery Co. of India Ltd.—Cama Chambers, Khanpur, Ahmedabad 1.

Bakubhai Ambalal Pvt. Ltd.—Bank of India Bldg., Bhadra, Ahmedabad 1.

Bansidhar Pvt. Ltd.—Opp. City Mill, Kankaria Road, Ahmedabad 22.

Barrels & Machinery Supplying Co.—656, Kapasia Bazar, Ahmedabad 2.

Batliboi & Co., Pvt. Ltd.— Reid Road, Ahmedabad 2.

Belrex India Ltd.—Royal Bldg., 2nd Floor, Tilak Road, Ahmedabad 1.

Beltex Pvt. Ltd.—Naroda Back Road, Ahmedabad 2.

Bradma of India Ltd.—Ashram Road, Navrangpura, Ahmedabad 9.

Brady & Co., Ltd.—W. H., Railwaypura Post, Reid Road, Ahmedabad 2.

Brooke Bond India Pvt. Ltd.—Industry House, Ashram Road, Ahmedabad 9.

C. A. Galiakotwalla & Co. Pvt. Ltd.—Kapasia Bazar, Railwaypura, Ahmedabad 2.

C. Doetor & Co. Pvt. Ltd.—Bank of Baroda Bldg., Gandhi Road, Ahmedabad 1.

Caltex (India) Ltd.—Mirzapur Road, Ahmedabad 1.

Cellulose Products of India Ltd.—Maminagar, Ahmedabad 8.

Cement Marketing Co. of India Pvt. Ltd.—Karaka Bldg., Ashram Road, Ahmedabad 9. Chemi Plast Corporation.—Kankari Goods Station, Ahmedabad 17.

Ciba of India Ltd.—Bombay Mutual Bldg., Tilak Road, Ahmedabad 1.

Climax Industries.—Block C. 3, Ramkumar Mill Compound, Saraspur Darwaja, Ahmedabad 18.

Crescent Tools Corporation.—11-12-13, Jalaram Industrial Estate, Rakhial, Ahmedabad 21.

Dye Stuffs & Chemicals Pvt. Ltd.—Fatehpura Village, Ahmedabad 7.

English Card Clothing Co. Ltd.—Opp. Rly. Workshop, Maninagar, Ahmedabad 8.

Esso Standard Eastern Inc.—Karaka Bldg., Ashram Rd., Ahmedabad 9.

Fibrex Pvt. Ltd.—Odhav Road, Ahmedabad 18.

Firestone Tyre & Rubber Co., of India Pvt. Ltd., Salapose Road, Ahmedabad 1.

Gannon Dunkerley & Co., Ltd.—Ram Nivas, Khanpur Road, Ahmedabad 1.

General Electric Co. of India Pvt. Ltd.—Magnet House, Relief Road, Ahmedabad 1.

General Industries.—2751, Mangal Bhavan, Tilak Road, Ahmedabad 1.

Geoffrey Manners & Co. Ltd.— Opp. Excise Station, Ellis Bridge, Ahmedabad 6.

Gravity Electric Clock Co.—Near Chakudia Mahadev Rakhial, Ahmedabad 21.

Great India Trading Co.— Patel Market, Kapasia Bazar, Ahmedabad 2.

Gujarat Cement Pipe Co.—Shah Alam Road, Near Swaminarayan College, Ahmedabad 22.

Gujarat Corporation (India) Ltd.—Harisadan, Char Rasta, Ahmedabad 1.

Gujarat Electric Co. Pvt. Ltd.—Opp. Mahavirjain Temple, Gandhi Road, Ahmedabad 1.

Gujarat Metal Box Co.—Opp. Ajit Mills, Rakhial Road, Ahmedabad 21.

Gujarat Paper Industries.—15, Ahmedabad Industrial Colony Sangh Ltd., Shatpur Dudheswar Road, Ahmedabad.

Gujarat Paper Mills Ltd.—P. O. Nandej, Baredaji, Ahmedabad.

Gujarat Pharmaceutical Chemical Works.—Near Chamnda Mata, Asarwa, Ahmedabad 16.

Gujarat Trading Corporation.—522/1, Outside Panchkuva Gate, Ahmedabad 2.

Gulf Oil (India) Pvt. Ltd.—Near Relief Cinema, Co-op. Building, Relief Road, Ahmedabad 1.

Gum Products (India).—Opp. English Cinema, Ahmedabad I.

Gunvantray Graphic Industries.—Near Railway Crossing, Naroda, Ahmedabad 2.

H. K. (Investment) Co. Pvt. Ltd.—Shree Ambika Mills Premises, Ahmedabad 8.

Imperial Chemical Industries (India) Ltd.—Navbharat Mills Compound, Naroda Road, Ahmedabad 2.

Imperial Tobacco Co. of India Ltd.—Karaka Bldg., Ashram Road, Ahmedabad 9.

Indequip Pvt. Ltd.—Reid Road, Ahmedabad 2.

Indian Cable Co. Ltd.—Khadia Char Rasta, Ahmedabad 1.

- Indian Food Industries.—Indian House, Sarangpur, Ahmedabad 1.
- Indian Oxygen Ltd.—Rakhial Road, Ahmedabad 21.
- Indo-Swiss Textile Machinery Mfg. Co.—C/o Ideal House, Lal Darwaja, Ahmedabad 2.
- International Computers and Tabulators (India) Pvt. Ltd.—Plot No. 163, Ashram Road, Ahmedabad 14.
- International Traders Pvt. Ltd.—Narottam Bldg., Kapasia Bazar, Ahmedabad 2.
- Jayant Rasiwalla Pvt. Ltd.—Mansur Chawl, Opp. Dudheswar Water Tank, Ahmedabad 1.
- Jayems Engineering Co.—Near Zakaria Masjid, Relief Road, Ahmedabad 2.
- Jayshree Traders Pvt. Ltd.—36/C, Bharatkhand Cotton mill Compounds, Naroda Road, Ahmedabad 2.
- Jones Textilaties Export Co., Ltd.—Kapasia Bazar, Ahmedabad 2.
- Jyoti Steel Industries.- Relief Road, Ahmedabad 1.
- Kilachand Devchand & Co., Ltd.— Manek Chowk, Ahmedabad 1.
- Killick Nixon & Co., Ltd.— Amrit Chambers, Mirzapur, Ahmedabad 1.
- Larsen & Toubro Ltd.—Karaka Bodg., Ashram Road, Ahmedabad 9.
- L. N. Gadodia & Sons Ltd.—78, New Cloth Market, Sakar Bazar, Ahmedabad 2.
- Machine Products India Pvt. Ltd.—Reid Road, Ahmedabad 2.
- Maize Products Ltd.-Kathwada, Ahmedabad 2.
- Maxima Corporation.—568, Reid Road, Railwaypura, Ahmedabad 2.
- Metal Moulders Ltd.—Dudheshwar Road, Ahmedabad 1. Metro Wood & Engg. Works Pvt. Ltd.—Ashram Road,
- Ahmedabad 9.
  Model Machineries Ltd.—641, Kapasia Bazar, Ahmedabad
- Modern Engineering & Moulding Co.—Opp. Kalyan Mill, Naroda Road, Ahmedabad 2.
- Nagardas Bechardas & Bros.—Near Railway Bridge, Amdupura, Naroda Road, Ahmedabad 2.
- Nanavati & Co., Ltd.—Maskati Market, Ahmedabad 2.
- Naranbhai Manibhai Pvt. Ltd.—309/B—Shahi Baug, Ahmedabad 4.
- Navabharat Potteries Pvt. Ltd.—Amit Chambers, Mirzapur Road, Ahmedabad 1.
- Netson Mfg. Co. (Pvt.) Ltd.—Bank of India Bldg., Bhadra, Ahmedabad 1.
- Newkem Products Corpn.— 46, Haribhai Market, Ahmedabad 22.
- Newmake Industries.—Nima House, Near Pathar Kuwa, Relief Road, Ahmedabad 1.
- Nima Trading Co.—Relief Road, Ahmedabad 1.
- Ojas Corporation.—New Cotton Mills No. 1 Compound, Outside Raipur Gate, Ahmedabad 1.
- Oriental Prospecting Co.—649/2, Nava Darwaja Road, Khadia, Ahmedabad 1.

- Pankaj Industries.—Tagara Mill Compound, Kankari Road, Opp. Laxmi Cotton Mill, Ahmedabad 22.
- Pargans (I) Pvt. Ltd.—Industrial Mills Estates, Gomtipur, Ahmedabad 21.
- Patel Volkart Ltd.—Fani Banda Bldg., Post Railway-pura, Ahmedabad 2.
- Pest Control (I) Pvt. Ltd.—Anand Bhuvan, Relief Road, Ahmedabad 1.
- Pioneer Engineering Works.—Naroda Road, Ahmedabad 2.
  Rally Metal Works.—Patthar Kuwa, Relief Road, Ahmedabad 1.
- Ramchandra & Co.—661/6, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.
- Ramnarayan Sons Pvt. Ltd.—2339, Manekchowk, Ahmedabad 1.
- Ravji Nettings Pvt. Ltd.—Rohit Mills Premises, Khokhara Mahemdabad, Ahmedabad 8.
- R. C. I. (India) Pvt. Ltd.—Karaka Bldg., Navrangpura, Ahmedabad 9.
- Remington Rand of India Ltd.—Kuber Nivas, Raikhad, Cross Road, Ahmedabad 1.
- R. J. Cama & Co. Pvt. Ltd.—Lal Darwaja, Ahmedabad 1. Sarvodaya Rolling Shutters & Engineering Works.—
- Rakhial Road, Ahmedabad 21.
  Sarvottam Rolling Shutters & Engg. Works.—Rajpur Tolnaka, Ahmedabad 21.
- Scientific Printers' Materials Manufacturing Co. Ltd.—Mirzapur Road, Ahmedabad 1.
- Shree Ambika Paper Pack Corpn.—"Ravi", Saradar Patel Nagar, Ellis Bridge, Ahmedabad 6.
- Sigil (India) Services Pvt. Ltd.—Near Zakaria Masjid, Relief Road, Ahmedabad 1.
- Singer Sewing Machine Co.—Reid Road, Ahmedabad 2.
- Spencer & Co., Ltd.—Relief Road, Next to Electricity House, Ahmedabad 1.
- Swastik Textile Trading Co., Ltd.—Motilal Hirabhai Market, Ahmedabad 2.
- Tata Iron and Steel Co., Ltd.—Relief Road, Ahmedabad 1.
- Technical Engineering & Chemical Products Co.—21, Visva Kunja Society, Ellis Bridge, Ahmedabad 7.
- The Times of India.—139, Ashram Road, Ahmedabad 9. Testeels Ltd.—Navdeep, Opp. Akashwani, Ashram Road, Ahmedabad 14.
- Vinima Corporation.—Nima House, Relief Road, Ahmedabad 1.
- Voltas Ltd.→Ashram Road, Ahmedabad 9.
- Vrajesh Pvt. Ltd.—696, Reid Road, Ahmedabad 2.
- Weltex Industrial Agencies Co.—633, Companywala Market, K. Bazar, Ahmedabad 2.
- Western India Proapecting Syndicate Pvt. Ltd.—Bank of India Bldg., Bhadra, Ahmedabad 1.
- Williamsons (I) Pvt. Ltd.—Khadia, Char Rasta, Ahmedabad 2.
- Workwell Pvt. Ltd.—Behind Sushramnagar, Rakhial, Ahmedabad 21.

#### GUJARAT - CLASSIFIED LIST OF TRADES & PROFESSIONS

ACID & ALKALI RESISTING CEMENTS MFRS.

#### **ACTIVATED CARBON MANUFACTURERS**

#### ARCOY INDUSTRIES

Corrosion Engineers

137, New Cloth Market, Ahmedabad 2.

Manufacturers of: Acid & Alkali Resisting Cements, tanks & Vessels lining materials, Pipe Jointing Compounds used in Chemical Plants, Dairies, Refineries, Textile Mills, Canning Industries, Pharmaceutical firms, Pickling Plants etc.

We also offer: ARCONETE Concrete floor-hardener and water proofer to provide heavy wear and tear Resistance for industrial flooring. Ferrum Iron and Aluminium Cements for repair of defective Castings; REFCRETE heat resisting refractory Mortar for jointing fire-bricks etc. ARCOSET the quick Setting liquid for cement Concrete; ARCOY Water proofing Compound which guarantees safety against water seepage and also activated carbon manufacturers.

#### ADVERTISING & PUBLICITY AGENTS

B. Shah & Co.—Nisha Pole Naka, Relief Road, Ahmedabad 1.

Chitra Publicity Co.—1916, Gandhi Road, Ahmedabad 1.
Dilip Advertisers— Opp. Peoples' Bank, Khadia, Ahmedabad 1.

General Agency & Exchange Co.—Near Jain Temple, 45, Gandhi Road, Ahmedabad 1.

Kali Advertisers—971/1, Khadia, Golwad, Ahmedabad 1. K. Shah & Co.—91, Ratan Pole, Ahmedabad 1.

Modern Publicity Co.—91, Ratan Pole, Ahmedabad 1.
Navnitlal & Co.—1161, Bhadra, opp. C.T.O., Ahmedabad 1.
Panch Advertisers Near Model Telhica Conditions

Panch Advertisers.—Near Model Talkies, Gandhi Road, Ahmedabad I. Paramount Publicity Co.—Jain Wadi, Manek Chowk,

Ahmedabad 1.
Publicity Parlour—Khadia, Char Rasta, Ahmedabad 1.

### AUTOMOBILES, AUTOMOBILE PARTS AND ACCESSORIES

Ahmedabad Motors Pvt. Ltd.- Lal Darwaja, Ahmedabad l.

Associated Auto Parts Ltd.—Relief Road, Kadia Kui, Ahmedabad 2.

Associated Motors Pvt. Ltd.—Mirzapur Road, Ahmedabad 1.

Autex (India) Corporation.—2, Shanta Mansion, Opp. Kabadi Market, Mirzapur Road, Ahmedabad 1.

Automotive Manufacturers Pvt. Ltd.-Mirzapur Road, Ahmedabad 1.

#### ARCOY INDUSTRIES

(Chemical Division)

Manufacturers of various grades of Activated Carbons for Pharmaceutical Industries, Starch Manufacturers, Dyes and Chemical Industries, Oil Mills and Aerated Water Plants, etc., etc.

Registered Office: 137, New Cloth Market, Ahmedabad-2. Phones: 53641, 52697. TLX No. AM-302. Telegram: ARCOY.

Works: R. R. L. Compound, P.O. R.R.L. Uppal Road, Hyderabad-9. Phone: 71567. TLX No. 015-357. Telegram: ARCOCEM.

We can also offer you acid and alkali resisting cements and compounds of various grades.

Bharat Automobiles.—Station Road, Ahmedabad 2.
Bombay Garage (Ahd.) Ltd.—Shahibag Road, Ahmedabad 4.

Cama Motors Pvt. Ltd.—Lal Darwaja, Ahmedabad 1. Central Automobiles.—Amar House, Relief Road,

Ahmedabad 1. Conwest Pvt. Ltd.— Relief Road, Ahmedabad 1.

Deepak Automobiles.— Mirzapur Road, Ahmedabad I.

Desai Automobiles.— Near Gujarat Samachar, Khanpur, Ahmedabad 1.

Eastern Automobiles.—Reid Road, Ahmedabad 2. G. M. Patel & Sons.—Kapasia Bazar, Ahmedabad 2. Gujarat Automobiles.—Station Road, Ahmedabad 2.

Harishad Auto Parts Co.—Near Gujarat Samachar, Kasturbhai Block, Khanpur, Ahmedabad 2.

Hindustan Automobiles.—Mirzapur Road, Ahmedabad I. Ideal Automobiles.—1339, Mirzapur Road, Near St.

Ideal Automobiles.—1339, Mirzapur Road, Near St. Xaviers' School, Ahmedabad 1.

Ideal Motors Ltd.—Lal Darwaja, Ahmedabad 1.
Indo American Trading Co.—159 Sindhi Market, Ahmedabad 2.

Kamal Motors.—Mirzapur Road, Ahmedabad 1.

Kirit Automobiles.—Chamunda Char Rasta, Naroda Road, Ahmedabad 2.

Krishna Automobiles.—Kapasia Bazar, Ahmedabad 2. Lakhia Brothers.—Lal Darwaja, Ahmedabad 2.

Liberty Automobiles.—645 Kapasia Bazar, Ahmedabad 2. Leymerce Automobiles.—3308, Kusterbhai Block, Kanpur Road, Ahmedabad 1.

- Mahagujarat Automobiles.—Opp. Madhu Bag, Panchkuva, Ahmedabad 2.
- Metro Motors (Ahd.) Ltd.-Mirzapur Road, Ahmedabad 1. Modern Automobiles (Gujarat) Pvt. Ltd.-Nehru Bridge Road, Lal Darwaja, Ahmedabad 2.

National Automobiles Co.-Rustamali Dhal, Mirzapur Road, Ahmedabad 1.

Prashant Automobiles.—Opp. St. Xavier's High School, Mirzapur Road, Ahmedabad 1.

Parikh Auto Inustries .- Danapith Kalupur, Ahmedabad 2.

R. Ramanlal & Co.-Station Road, Ahmedabad 2.

S. D. Patel & Co.-Opp. Telegraph Office, Bhadra, Ahmedabad 1.

Shailesh Automobiles.—Paraskunj Society, Near Gujarat Samachar, Khanpur, Ahmedabad 1.

Universal Motors.—Mirzapur Road, Ahmedabad 1.

Vijay Automobiles.—Opp. Manilal Mansion, Station Road, Ahmedabad 1.

Vikas Automobiles.—Prop. Keshvlal Maganlal, 456/30, Sakar Bazar, Ahmedabad 2.

Venus Motors.—880/5 Char Rasta, Mirzapur Road, Ahmedabad 1.

Volga Automobiles.-Shantisadan Estate, Opp. Dinbai Tower, Mirzapur Road, Ahmedabad 1.

Western Automobiles.—Lal Darwaja, Ahmedabad 1.

#### BALL AND ROLLER BEARINGS

A. Raman & Co.-Kapasia Bazar, Ahmedabad 2.

Autoparts & Ball Bearing Co.-656/5, Kapasia Bazar, Ahmedabad 2.

Ball Bearing & Machinery Syndicate.—Kapasia Bazar, Ahmedabad 2.

C. Das & Sons.—Near Central Telegraph Office, Bhadra, Ahmedabad 1.

Central Ballbering & Machinery Mart.—Mehboob Society Bldg., 1st Floor, Relief Road, Ahmedabad 1.

Enp Bearing & Engineering Centre.-Merit House, Relief Road, Ahmedabad 1.

Jay Ball Bearing Corpn.—Imperial Bldg., Relief Road, Ahmedabad 1.

National Ball Bearing Stores.-Kapasia Bazar, Ahmedabad 2.

Regal Trading Co.-Mehboob Society Bldg.-Khadia Kuin, Ahmedabad 1.

Shah Patel & Co.—Kapasia Bazar, Ahmedabad 2.

Sheth Stores Trading Co.—Deepak Chambers, Station Road, Ahmedabad 2.

Silpi Engineering Co.- Bombay Market Crosslane, Ahme-

Standard Materials Co.- Narottam Building, K. Bazar, Ahmedabad 2.

### CHEMICAL & PHARMACEUTICAL PRODUCTS

Aarat Electro-Chemicals Pvt. Ltd.- 311/3, Rakhial Road, Ahmedabad 21.

Adgums Pvt., Ltd.- Opp. Rustom Jahangir Vakil Mills, Dudheshwar Road, Ahmedabad 1.

Advance Chemical and Pharmaceutical Works.—Dudheswar Road, Ahmedabad 1.

Alchemic Pvt., Ltd.- Opp. Potalia Tank, Saraspur, Ahmedabad 18.

Amrit Chemical Works. - Naroda Road, Ahmedabad 2.

Ancharmetalicorid Co.- Bagabodi's Pole, 896/3, Raipur Chakla, Ahmedabad 1.

Anil Starch Products Ltd.- P.B. No. 1062, Anil Road, Ahmedabad 2.

Ashok Chemical Industries - 2545, Pakhali's Pole, Raipur, Ahmedabad 1.

Associated Chemical Co.- Near Electric Sub-Station, Odhav Road, Ahmedabad 21.

Benjo Mfg. Co.—Panchpati, Kalupur, Ahmedabad.

Bharat Chemical Industries.-5401, Opp. Kalyan Mills, Naroda Road, Ahmedabad 1.

Bombay Chemical Industries.— Behind Calico Mills, Near Kankodiwala Factory, Jamalpur, Ahmedabad.

Cadila Laboratories.—Azad Society, Ahmedabad 6.

Chemico Textile Industries.—Tagara Mill's Compound, Kanakaria, Ahmedabad 16.

C. M. C. India Pvt. Ltd.-914, Khadia Golwad, Opp. Ghasiram Pole, Bari, Ahmedabad 1.

Everest Chemical Industries.—Tasantnagar, Maninagar, Ahmedabad 8.

Gluck Laboratories.—25, New Cloth Market, Raipur, Ahmedabad 1.

Gujarat Pharmaceutical & Chemical Works .-- Asarva, Ahmedabad 16.

Harihar Research Works.-Mandvi Street, Ahmedabad. Indian Paints & Chemical Inds.-19, Harihar Nivas, Kochrab, Ahmedabad.

Industrial Chemicals.—C/o Diesel India, Shethia Bldg., Relief Road, Ahmedabad 1.

Indian Electro-Chemical Industries Ltd.—Odhav Road, Ahmedabad 2.

Iris Laboratories. -20, S. B. Khokhra, Mehmedabad, Ahmedabad 8.

Kapur Chemical Industries.— Tavdipura, Dudheshwar Road, Ahmedabad.

Kinariwala Dye Chem. Industries.—184, Garden Area, Maninagar, Ahmedabad 8.

Kishor Industries. - Bharatkhand Cotton Mills Compound, Asarwa, Ahmedabad 16.

Mahalaxmi Kapur Industries.- Old Navjivan Press, Outside Sarangpur Gate, Ahmedabad 2.

New Bharat Glue Mfg. Co .- Opp. Naroda Rly. Station, Naroda Road, Ahmedabad 2.

Ojas Corporation .- New Cotton Mill No. 1 Compound, Kankaria Road, Ahmedabad 22.

Paragon Chemical Industries. - 622/11, Kapasia Bazar, Ahmedabad 2.

Prakash Chemical Industries.—Girdhar Master's Compound, Ahmedabad 2.

Puro Pharma Laboratories.—Pravin Nagar, Ahmedabad 7.

Ramco Chemical Works.—661, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.

Retrieve Pharmaceuticals.-4, Patel Society, Ellis Bridge, Ahmedabad 6.

Rollwala Group Enterprises.—Amar House, Tilak Road, Ahmedabad 1.

Sacow Chemical Works.—140, Dharmanagar Society, Sabarmati, Ahmedabad.

Shankar Chemical Works.—Near Ajit Mills, Rakhial Road, Ahmedabad 21.

Shree Ambica Chemical Industries.—1, Shreeji Industrial Estate, Nagarvel Hanuman Road, Ahmedabad 21.

Santosh Chemical Works.—Opp. Potalia Talav, Ahmeda-

Sims Laboratories.—Tarun Commercial Mills Premises, Outside Kaluput Gate, Railwaypura, Ahmedabad 2.

S. R. Chemical Industries.—321, New Cloth Market, Ahmedabad 2.

Synthetics & Polymer Inds.—8-2, Bapunagar, Municipal Industrial Estate, Behind Vikram Mills, Ahmedabad.

Technical Engineering & Chemical Products Co.— Ellis Bridge, Ahmedabad 7.

Vishnu Chemical Works.—Delhi Darwaja, Ahmedabad 1.

#### **COTTON MILLS**

Ahmedabad Advance Mills Ltd.—Outside Delhi Gate, Post Box No. 18, Ahmedabad 1.

Ahmedabad Cotton Mfg. Co. Ltd.—Outside Sarangpur Gate, Post Box No. 46, Ahmedabad 2.

Ahmedabad Jupiter Spinning, Weaving & Manufacturing Co. Ltd.—Dadhichi Road, Post Box No. 43, Ahmedabad 1.

Ahmedabad Kaiser-i-Hind Mills Co., Ltd.—Outside Raipur Gate, Ahmedabad.

Ahmedabad Laxmi Cotton Mills Co., Ltd.—Outside Raipur Gate, Ahmedabad 22.

Ahmedabad Manufacturing and Calico Printing Co., Ltd.—Post Box No. 12, Jamalpur, Ahmedabad 22.

Ahmedabad New Cotton Mills Co., Ltd.—Mithipur, Ahmedabad 8.

Ahmedabad New Textile Mills Co., Ltd.—Nos. 1 & 2, Outside Raipur Gate, Ahmedabad 22.

Ahmedabad Sarangpur Mills Co., Ltd.—Outside Raipur Gate, Ahmedabad 22.

Ahmedabad Shri Rama Krishna Mills Co., Ltd.—Gomtipur Road, Ahmedabad 21.

Ajit Mills Ltd.—Rakhial Road, Railwaypura, P.O. Bag No. 1067, Ahmedabad 21.

Ananta Mills Ltd.-Rakhial Road, Ahmedabad 21.

Aruna Mills Ltd.—Naroda Road, Ahmedabad 2.

Arvind Mills Ltd.—Naroda Road, Ahmedabad 2.

Aryodaya Ginning Mills.—Asarwa, P.B. No. 175, Ahmedabad 16.

Aryodaya Spinning and Weaving Co., Ltd. (Nos. 1 & 2).— Asarwa Road, Ahmedabad 16.

Asarwa Mills Ltd.—P.O. Asarwa, Ahmedabad 16.

Asoka Mills Ltd.—Naroda Road, Ahmedabad 2.

Bechardas Spg. & Wvg. Mills Co. Ltd.—Raikhad, Ahmedabad 1.

Bhalakia Mills Co. Ltd.—Khokhra Mehmedabad Road, Ahmedabad 8.

Bharat Saryodaya Mills Co., Ltd.—Near Jagnath Mahadev Kankaria Road, Post Maninagar, Ahmedabad 8.

Bihari Mills Ltd.—Mithipur, Khokhra Mehemadabad, Post Box No. 4, Ahmedabad 1.

City of Ahmedabad Spg. & Mfg. Co., Ltd.—Kankaria Road, Ahmedabad 22.

Commercial Ahmedabad Mills Co., Ltd.—Near Idgah Chowky, Asarwa, Ahmedabad 16.

Girdhardas Harivallavdas Mills Ltd.—Near Idgah Police Chowky, P.O. Box No. 143, Ahmedabad 16.

Hathisingh Mfg. Co., Ltd.—Near Saraspur Gate, Ahmedabad 18.

Himabhai Mfg. Co., Ltd.—Outside Saraspur Gate, Ahmedabad 18.

Jehangir Vakil Mills Co., Ltd.—Outside Delhi Gate, Ahmedabad 1.

Maheshwari Mills Ltd.—Dadhichi Road, Ahmedabad 4. Manekchowk & Ahmedabad Mfg. Co., Ltd.—Nos. 1 & 2, Outside Dariapur Gate, Ahmedabad 16.

Maneklal Harilal Spg. & Mfg. Co. Ltd.—Saraspur Road, P.B. No. 1047, Ahmedabad 18. Marsden Spg. & Mfg. Co., Ltd.—Rakhial Road, Ahmedabad 21.

Mihir Textiles Ltd. — Khokhra Mehmedabad, Ahmedabad 8.

Monogram Mills Co., Ltd.—Rakhial Road, Ahmedabad 21.

Nagri Mills Co. Ltd.—Rajpur-Gomtipur Road,
Ahmedabad 21.

Nanikram Sobhraj Mills Ltd.—Madhowlal Ranchhodlal Colony, Ahmedabad 18.

New Ahmedabad Bansidhar Mills Co. Pvt. Ltd.—Naroda Road, Ahmedabad 2.

New Asarwa Mfg. Co. Ltd.—Outside Dariapur Gate, Ahmedabad 16.

Anmedabad 16. New Asarwa Mills Pvt. Ltd.—P.O. Saraspur, Ahmedabad

18. New Commercial Mills Co. Ltd.—No. 1, Naroda Road,

Railwaypura Post, Ahmedabad 2. New Gujarat Cotton Mills Ltd.—Railwaypura Post,

New Gujarat Cotton Mills Ltd.—Rallwaypura Post, Naroda Road, Ahmedabad 2.

New Maneckchowk Spinning & Weaving, Co. Ltd.—Post Asarwa, Near Idah Gate, Ahmedabad 16.

New Raipur Mills Co., Ltd.—Gomtipur Road, Ahmedabad 21.

New Shorrock Spg. & Mfg. Co., Ltd.—Asarwa Road, Ahmedabad 16.

New Swadeshi Mills of Ahmedabad Ltd.—Naroda Road, Ahmedabad 2.

Nutan Mills Ltd.—Via Vora's Roja, Anil Road, Ahmedabad 2.

Patell Mills Co., Ltd.—Gomtipur, Ahmedabad 21.

Raipur Mfg. Co., Ltd.—Outside Saraspur Gate, Ahmedabad 21.

Rajnagar Spg. & Wvg. & Mfg. Co., Ltd.—Near Idga Police Chowky, Ahmedabad 16.

Rohit Mills Ltd.—Khokhra Mehmedabad, Ahmedabad 8. Rustam Jehangir Vakil Mills Co., Ltd.—Dhudeswar Road, Ahmedabad 1.

Sarangpur Cotton Mfg. Co., Ltd.—Amraiwadi Road, Ahmedabad 8.

Saraspur Mills, Ltd.—Saraspur Road, Ahmedabad 18.

Shri Ambica Mills Ltd.—Kankaria, Ahmedabad 8.

Shri Arbuda Mills Ltd.—Rakhial Road, Ahmedabad 21.

Shree Bansidhar Spg. & Wvg. Mills Pvt., Ltd.—Naroda Road, Ahmedabad 2.

Shri Sayaji Mills Ltd.—Khathwada & Railwaypura, Ahmedabad 2.

Silver Cotton Mills Co., Ltd.—Kankaria Road, Ahmedabad 22.

Shri Vivekanand Mills Ltd.—Rakhial Road, Ahmedabad 21.

Tarun Commercial Mills Ltd.—Outside Kalupur Gate, Railwaypura Post, Ahmedabad 2.

Vijay Mills Co., Ltd.—Naroda Road, Ahmedabad 2.

Vikram Mills, Ltd.—Post Rajpur, Gomtipur, Ahmedabad 21.

#### DYESTUFFS

Arnish Chemdyes Corporation.—Nagarseth's Vando, Gheekanta Road, Ahmedabad.

Asian Dyestuffs Industries.—5/14, Muni Industrial Estate, Bapunagar, Ahmedabad.

Aromatic Dyes & Chemicals.—Girdher Chamber, Gandhi Road, Ahmedabad 1.

Associated Chemical Industries.—Opp. Vijaya Mills Compound, Naroda Road, Ahmedabad 2.

- Associated Dyestuff Industries.—Khadia Char Rasta, Ahmedabad 1.
- Coaltar Chemical Mfg. Co.—526, Panchkuva, Ahmedabad 2.
- Comet Dyestuff Pvt. Ltd.—Naroda Road, Ahmedabad 2. Devarsons Pvt. Ltd.—Narayan Nivas, Astodia Road, Ahmedabad 1.
- Dyechem Corporation.—Khadia Char Rasta, Ahmedabad 1.
- General Dyestuff Corpn.—Khadia Char Rasta, Ahmedabad 1.
- Indequip Chemdyes Ltd.—Reid Road, Ahmedabad 2.
- Jeeka Industries.—Astodia Road, Ahmedabad 1.
- Oriental Dyestuff Corpn.—Khadia Char Rasta, Ahmedabad.
- Shree Ban Dyes.—Bansidhar House, Kankaria Road, Ahmedabad 22.
- Shree Kalaria Bros.—Chhikaniwala Estate, Gomtipur, Ahmedabad 21.
- Spectrum Dyes.—Sankhadi Sheri, Ahmedabad 1.
- Syndet Pvt. Ltd.—Prajapati Building, Khadia Char Rasta, Ahmedabad I.
- Texdyes Corporation.—Relief Road, Ahmedabad 1.
- Vega Dyestuff Corporation.—Nagari Bldg., Astodia Road, Ahmedabad I.

#### **ELECTRICAL INDUSTRIES**

## THE AHMEDABAD ELECTRICITY COMPANY, LTD.

- Managing Agents, Messrs. Killick Industries Ltd., Home Street, Fort, Bombay I (B.R.).
- Office: "Electricity House", Lal Darwaja, Post Box No. 37, Ahmedabad I.
  - J. C. Shah, B.Sc., M.S., Chief Executive.
- D. C. Bhardwaj, B.Sc. (Eng.), M.I.E. (India), Deputy Chief Executive.
- V. B. Shah, B.Sc., D.I.I.Sc., A.M.I.E.E., Chief Engineer.
  - H. M. Pai, Mains Superintendent.
  - H. P. Basu, Power Station Superintendent.
    - G. V. Kamat, Chief Accounts Officer.
  - Power House: Sabarmati, Ahmedabad 5.
- Head Office Administration Dept.: 5, Graham Rd. (4th floor), Ballard Estate, Post Box No. 109, Bombay I (B.R.).
- Regd. Office: Killick House, Home Street, Fort, Bombay-I (B.R.).

### **ELECTRICAL GOODS & APPLIANCES**

- Bharat Electric Co.—Deepak Chambers, Crosslane, Ahmedabad 2.
- Bhagyodaya Traders.—Opp. English Cinema, Khadia Char Rasta, Ahmedabad 1.

Bina Electrical & Engg. Corpn.—Pada Pole Naka, Gandhi Road, Ahmedabad 1.

623

- Bomin Pvt. Ltd.—Opp. Odhav Bus Terminus, Odhav, Ahmedabad 2.
- Bhogilal Jethalal & Bros.—Pitalia Bamba, Gheekanta, Opp. Liberty Cinema, Ahmedabad 1.
- International Electrical Equipment Co.—Reid Road, Ahmedabad 2.
- Lunar Electronics.—Opp. Khamasa Gate, Ahmedabad 1.
  Manu Engg. Works.—H.76, Hirabhai Market, Kankaria Road, Ahmedabad 22.
- Napin Corpn.—793, Varai Pada's Pole, Khadia Char Rasta, Ahmedabad 1.
- Shakti Electrical Industries—Radhavallabh Road, Keshav Kutir, Maninagar, Ahmedabad 8.
- Star Radio Electric Co.—Star House, Relief Road, Ahmedabad 1.
- Sun Electric Stores.—Opp. Post Office, Gandhi Road, Ahmedabad 1.
- Tarun Electrical Industries—Padapole Naka, Gandhi Road, Ahmedabad 1.
- Vinus Electric Co.—Opp. Cinema D. France, Gandhi Road, Ahmedabad 1.

#### MACHINERY MANUFACTURERS AND DEALERS

- Ahmedabad General Engineering Works.—522/1, Outside Panchkuva Gate, Ahmedabad 1.
- Ahmedabad Iron & Brass Factory.—Bharatkhand Mills Compound, Ahmedabad 16.
- Ahmedabad Victoria Iron Works & Co., Ltd.—Dudheswar Road, Ahmedabad 16.
- Ara Industries.—Opp. Chisti Chamber, Outside Shahpur Darwaja, Ahmedabad 1.
- Arora Industries.—Gujarat Ginning Mills Compound, Outside Prem Gate, Ahmedabad 16.
- Arvind Metal Industries.—Near Kalyan Mills, Naroda Road, Ahmedabad 2.
- Asiatic Bolt & Engineering Co.—413, Chokha Bazar, Kalupur, Ahmedabad 2.
- A. Star Engineering Works Pvt. Ltd.—1730, Haribhai's Dehla, Outside Prem Gate, Ahmedabad 16.
- B. P. Engineering Works,—663/4, Gheekanta Road, Ahmedabad 1.
- C. B. Sutaria Brothers.—Motilal Hirabhai Market, Cross Lane, Ahmedabad 2.
- Forge & Blower Co.—Naroda Road, Ahmedabad 2.
- Frion & Co.—Reid Road, Ahmedabad 2.
- G. A. Latif & Sons.—Latif Bldg., Revdi Bazar, Ahmedabad 2.
- Gujarat Corpn. (I) Pvt. Ltd.—Naroda Road, Ahmedabad
- Gujarat Engineering Co.—Opp. Potalia Talao, Saraspur, Ahmedabad 18.
- Hind Sewing Machine Works, Gordhan Mills Compound, Naroda Road, Ahmedabad 2.
- Honesty Engineering Works.—5/26, Ind. Estate, Bapunagar, Ahmedabad 21.
- Industrial Machinery Mfrs. Pvt. Ltd.—Amraiwadi Road, Ahmedabad 8.
- Karsandas Bechardas & Sons.—Mithapani Gate, Saraspur, Ahmedabad 18.
- K. K. Engineering Works.—Tavadipura, Shahi Baugh, Ahmedabad 4.
- K. Vadilal & Co.—Haji Bldg., Mirzapur Rd., Ahmedabad.

Laxmi Vijay Brass & Iron Works.-Gheekanta Road, Ahmedabad 1.

Machine Products (I) Ltd.—Reid Road, Ahmedabad 2. Machine Tax Agency.-153, New Cloth Market, Ahme-

Machinery & Equipment Manufacturing Pvt. Ltd.-Opp. Ajit Mill, Gomtipur, Rakhial Road, Ahmedabad

Manu Engineering Works.—Ramkumar Mills Compound, Saraspur, Ahmedabad 2.

M. K. Brothers.-1, Ahmedabad Industrial Colony, Dudheswar Road, Ahmedabad 1.

Metro Industries.—Chhinkaniwala Estate, Outside Gomtipur Gate, Ahmedabad 21.

Mistry, Ambalal Jetharam.—Gheekanta Road, Ahmedabad 1.

Model Machineries Pvt. Ltd.—Kapasia Bazar, Ahmedabad

Modern Engineering & Moulding Co.-Opp. Kalyan Mills, Naroda Road, Ahmedabad.

National Engineering Works.—Tawdipura, Ahmedabad 4. Narendra Industries.—F.P. No. 331/7/B/2 Dudheswar, Shahi Baugh, Ahmedabad 4.

New India Engineering Corpn.—Bardolpura, Near Jubilee Mills, Post Asarwa, Ahmedabad 16.

Oriental Engineering Works.—Bapunagar, Ahmedabad 18. Panchal Engineering Works.—Dariapur, Char Rastha, Ahmedabad 1.

Pioneer Engineering Works.—Naroda Road, Ahmedabad 2.

Ramvijay Iron Works.—12, Dhobi Ghat, Ahmedabad 1. Shivlal Vischand Contractor.—Near Potalia Tank Saraspur, Ahmedabad 2.

Shree Ambika Engineering Corporation.—648, Opp. Model Talkies, Ahmedabad 1.

Shree Satyanarayan Iron & Brass Factory—Rakhial Rd., Ahmedabad 21.

S. K. Panchal & Co.-Block No. 13, Ahmedabad Ind. Colony, Dhobi Ghat, Dudeshwar Road, Ahmedabad 1.

Smith Engineering Works.—Dariyapur Rupapari, Ahmed-

Tarkas Engineering Works.—Haridas Acharatlal Cloth Market, Kapasia Bazar, P.B. No. 1005, Ahmedabad 2. Venus Engineering Co.-Kankaria Road, opp. Laxmi C. Mills, Ahmedabad 22.

#### MILL GIN STORES SUPPLIERS

Abrawheel Private Ltd.-Opp. Kalupur Police Chowki, Relief Road, Ahmedabad I.

A. H. Rolwala & Co.- Amar House, Relief Road, Ahmedabad 1.

Aliance Store Trading Co., Ltd. - Station Road, Ahmeda-

Allied Engineers.—Reid Road, Ahmedabad 2.

Altex Private Ltd.—Ramolia Building, Relief Road, Ahmedabad 1.

Ambica Textile Traders.—Opp. Aranda Hall, Kapasia Bazar, Ahmedabad 2.

Anglo American Trading Corporation. - Motilal Mansion, Kapasia Bazar, Ahmedabad 2.

Arvind Gunvant & Co.- Motilal Hirabhai Market, Station Road, Ahmedabad 2.

Ashok Traders.—Deepak Chambers, Station Rd., Ahmedabad 2.

Ashwin & Co. - 535, Relief Road, Ahmedabad 1.

Asian Textile Engineering Corporation.-Opp. Madhav Baug, Ahmedabad 2.

Atul Trading Co. - 66-Pritamnagar, Ellis Bridge, Ahmedabad 6.

Barrels & Machinery Supplying & Co.-Kapasia Bazar, Ahmedabad 2.

B. C. Mashruwala & Bros. - 657, Kapasia Bazar, Ahmeda-

Bhagavati Undercasing Mfg. Works.—Nr. Maheshwari Mills, Tavdipura Road, Shahibag, Ahmedabad 4.

Bharat Rope & Lace Mfg. Co.—Vohra's Dahela, Kapasia Bazar, Ahmedabad 2.

Bharat Textile Traders.—713, Lunsawad, Opp. Nariawad, Dariapur, Ahmedabad 1.

Bharat Traders.—572/A, Reid Road, Ahmedabad 2.

B. Trikamlal & Co.-Gheekanta Road, Bhut's Ambli, Ahmedabad 1.

C. A. Galiakotwala & Co. Pvt. Ltd.-Kapasia Bazar, Ahmedabad 2.

Card Clothing & Comber Re-Needling Works.—Govind Bhuvan, Opp. Ramannagar Society, Maninagar, Ahmedabad 8.

C. B. Sutaria Bros.—Cross Lane, Ahmedabad 2.

C. Doctor & Co., Pvt. Ltd.—Bank of Baroda Bldg., 3rd Floor, Gandhi Road, Ahmedabad 1.

Chemosize Agency.—566, Reid Road, Ahmedabad 2.

Chemico Textile Industries.-Tagara Mill Compound, Outside Raipur Gate, Ahmedabad 22.

Chemitex Import Co.-Usman Manzil, Near Zakaria Masjid, Relief Road, Ahmedabad 1.

Chemotex Agency.—Gopal Krishna Flour Mills Comp., Outside Raipur Gate, Ahmedabad 22.

Chotalal Balabhai & Bros.—Kapasia Bazar, Ahmedabad 2. Chokshi Trading Co.—2754/2, Relief Road, Ahmedabad 1. Chinu Vakil & Co.—Cross Lane, Revdi Bazar, Ahmedabad 2.

Commercial Textile Agency.—Kanuga Bhavan, Kapasia Bazar, Ahmedabad 2.

Continental Textile Traders.—Harisadan, Char Rasta, Khadia, Ahmedabad 1.

Crescent & Co.-649/A/11, Patel Market, Kapasia Bazar, Ahmedabad 2.

C. S. Thacker & Co.—Khadia, Char Rasta, Ahmedabad 1.

C. U. Kapadia & Sons.—Kapasia Bazar, Ahmedabad 2. C. Vadilal & Co.—Reid Road, Ahmedabad 2.

C. V. Mehta Pvt. Ltd.—Khokhara Mahemdabad, Maninagar, Ahmedabad 8.

Eastern Trading Agency.—Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.

Everest Industrial Corpn.—Eranda Hall, Kapasia Bazar, Ahmedabad 2.

Everest Traders.—Companywala Market, Kapasia Bazar, Ahmedabad 2.

Eversharp Textile Corporation.—1075, Talia's Pole, Sarangpur, Ahmedabad 1.

Fadia Brothers.—Nima House, Relief Road, Ahmedabad 1. Frion & Co.—Reid Road, Ahmedabad 2.

General Commercial Agency.—Cross Lane, Revdi Bazar, Ahmedabad 2.

General Engineering Stores.—Kapasia Bazar, Ahmedabad 2.

Gujarat Corporation (India) Pvt. Ltd.—Hari Sadan, Char Rasta, Khadia, Ahmedabad 1.

Girdharlal Damodardas Pvt. Ltd.—Reid Road Ahmedabad 2.

Gum Products (India).-Opp. English Cinema, Near Panchkuva Gate, Ahmedabad 2.

Hides & Leather Product Pvt. Ltd.—Reid Road, Ahmedabad 2.

H. Mansuri & Sons.—Dariapur, Dabgarwad, Khodi Amli, Ahmedabad 1.

Hind Hardware Stores.—Kadiakuin, Relief Road, Ahmedabad 1.

Ideal Mill Stores.—Kapasia Bazar, Ahmedabad 2.

Indequip Pvt. Ltd.—Reid Road, Ahmedabad 2.

India Mill Stores Co.—Vohra's Bldg., Kapasia Bazar, Ahmedabad 2.

Indravadan Maneklal & Co.—Station Road, Ahmedabad 2.
Indulal & Co.—Narotam Bldg., Kapasia Bazar, Ahmedabad 2.

Industrial Engineering Corpn.—622, Kapasia Bazar, Ahmedabad 2.

Industrial Spare Parts Co.—Kadiakui, Relief Road, Ahmedabad 1.

International Textile Corporation.—Reid Road, Ahmedabad 2.

International Tape Mfg. Co.—City Mill Compound, Outside Raipur Gate, Kankaria Road, Ahmedabad 22.

International Traders Pvt. Ltd.—Narotam Building, Kapasia Bazar, Ahmedabad 2.

International Trading Co.—Station Road, Ahmedabad 2. International Suppliers.—Companywala Market, Kapasia Bazar, Ahmedabad 2.

Interseas Trading Co.—Shanti Sadan Estate, Mirzapur Road, Ahmedabad 1.

Jagdish Trading Corporation.—Devakinandan Market, Cross Lane, Ahmedabad 2.

Jashwantlal Popatlal & Co.—654/4/4, Kapasia Bazar, Ahmedabad 2.

Jayantilal Pranlal & Co.—Mahalaxmi Bungalow No. 9, Ellis Bridge, Ahmedabad 6.

Jayantilal S. Gandhi & Co.—Opp. Madhav Baug, Ahmedabad 2.

Jaybharat Trading Co.—Motilal Mansion, Kapasia Bazar, Ahmedabad 2.

Jayhind Leather Industries Pvt. Ltd.—Reid Road, Ahmedabad 2.

Jitendra & Co.—Relief Road, Kadiakuin, Ahmedabad I. J. M. Patel & Co.—Dalal Building, Kapasia Bazar,

Ahmedabad 2. J. Nanavati & Co.—626/32, K. Bazar, Ahmedabad 2.

Kaka Brothers.—696, Reid Road, Ahmedabad 2.

Kamlesh Corporation.—Reid Road, Ahmedabad 2.

Kantilal H. Mehta & Co.— Reid Road, Ahmedabad 2. Kashiparekh Bros.—564, Reid Road, Ahmedabad 2.

Kashyap Bros.—2890/A/8, Relief Road, Ahmedabad.

K. C. C. Industries.—Mendikuva, New Road No. 33, Outside Delhi Gate, Ahmedabad.

K. C. Mashruwala & Co.—Reid Road, Ahmedabad 2.
K. H. Nawab & Co.—Kapasia Bazar, Ahmedabad 2.

Kishore Trading Corporation—702/5, Reid Road, Ahmedabad 2.

K. K. Engineering Works—Shahibag, Tavdipura, Ahmedabad 4.

Krishnaraj & Co.—Jiwan Nivas, Opp. Madhav Bhaug, Motibai Hospital Road, Ahmedabad 2.

Kumar Textile Industries—703, Opp. Nariawad, Lunsawad, Dariapur, Ahmedabad 1.

Kumarpal Kantilal & Co.—Meint House, Reid Road, Ahmedabad 1.

Mangaldas Jeshingbhai & Co.—Cross Lane, Revdi Bazar, Ahmedabad 2.

Manilal & Bros.—619, Reid Road, Ahmedabad 2.

Mashruwala & Bros.—Vohra's Dehela, Kapasia Bazar, Ahmedabad 2.

Master Traders.—Aranda Hall, Kapasia Bazar, Ahmedabad 2.

Masturlal Chunilal & Co.—Ram Nivas, Khanpur Road, Ahmedabad 1.

Mathurdas Odhavji & Co.—Acharyaji's Bethak, Asarva Road, Ahmedabad 16.

Maxima Corporation.—Reid Road, Ahmedabad 2.

Mehta Corporation Pvt. Ltd.—Rohic Mills Premises, Khokhara Mehamdabad, Maninagar, Ahmedabad 8. Mehta Mill Supply Co.—696, Reid Road, Ahmedabad 2.

Mehta Parikh & Co. Private Ltd.- Kapasia Bazar, Ahmedabad 2.

Metal Moulders Private Ltd.— Dudheswar Road, Ahmedabad 1.

Mill Stores Co. (Bombay) Pvt. Ltd.— Kadiakui, Relief Road, Ahmedabad 1.

Mohanlal Prabhudas & Co.- Reid Road, Ahmedabad 2.

M. P. Kapadia & Co.—957, Kapasia Bazar, Ahmedabad 2. Mulchand Jaikishandas & Co.—Reid Road, Ahmedabad 2.

Multitex Trading Co.—Narotam Bldg., Kapasia Bazar, Ahmedabad 2.

Nagindas Kilabhai, Pvt. Ltd.—Ashram Road, Ahmedabad 9.

Nanavati & Co., Pvt.Ltd.—Kapasia Bazar, Ahmedabad 2. Nachmo Co.—Tulsi Kunji, Ellis Bridge, Ahmedabad 9.

National Engineering Co.—Kanuga Bhuvan, Kapasia, Bazar, Ahmedabad 2.

Natverlal Govindlal & Co.—Kapasia Bazar, Ahmedabad 2. Natverlal Harilal & Co.—622/2, Kapasia Bazar, Ahmedabad 2.

Navinchandra C. Zaveri & Co.—Fanibanda Building, Reid Road, Ahmedabad 2.

New India Trading Co.— Vakil Building, Khadia Char Rasta, Ahmedabad 1.

Nima Trading Co.—Cross Lane, Revdi Bazar, Ahmedabad 2.

Niranjan R. Shah & Co.—627, Kapasia Bazar, Ahmedabad 2.

Noble Textile Trading Co.—Sunder Nivas, Opp. Kothari Pole, Gandhi Road, Ahmedabad 1.

N. P. Sales Corporation,—Narotam Bldg., Kapasia Bazar, Ahmedabad 1.

Orient Traders (Ahmedabad).—Taiyab Bldg., Relief Road, Ahmedabad.

Oriental Corporation Pvt. Ltd.—Bank of Baroda Bldg., Fuvara, Gandhi Road, Ahmedabad 1.

Overseas Mill Stores Co. (Pvt.) Ltd.—Setalvad House, Mirzapur Road, Ahmedabad 1.

Paramount Textile Agency—Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.

Pargans (India) Pvt Ltd.—Shree Industrial Mill Estate, Gomtipur, Ahmedabad 21.

Pickmaco (India)—328/2, Revdi Bazar, Ahmedabad 2.

P. G. Shah & Co.—Astodia Road, Near Nagari Sheth's Bungalow, Ahmedabad 1.

Pioneer Engineering Agencies.—Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.

Prabhat Engineering Co.—Motilal Mansion, Kapasia Bazar, Ahmedabad 2.

Prakash Industries.—3, Mahalaxmi Compound, Dudheshwar Road, Ahmedabad 1.

Prakash Mill Stores Trading Co.—Eranda Hall, Kapasia Bazar, Ahmedabad 2.

Premier Mill Stores Co.—696/A/6, Reid Road, Ahmedabad 2.

Prem Roy Bros.—L. K. Trust Building, Revdi Bazar, Ahmedabad 2.

Rajanikant & Co.—328/2, Revdi Bazar, M.A. Trust Bldg., Ahmedabad.

Ramanlal Vrijvallabhdas & Co.—Cross Lane, Revdi Bazar, Ahmedabad 2.

Rasiklal D. Gandhi & Co.— Mangal Bhuvan, Relief Road, Ahmedabad.

Ratilal & Co.—Cross Lane, Revdi Bazar, Ahmedabad 2.

R. D. Shah & Co.—Vohra's Dehla, Kapasia Bazar, Ahmedabad 2.

Regal Trading Co.—Mahabub Bldg., Kadiakui, Ahmedabad.

R. M. Brothers.—1083/84, Chhotalal Harilal's Dahela, Kapasia Bazar, Ahmedabad 2.

R. N. Shah & Co.—Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.

R. Vadilal & Co.—Kansara's Dehla, Station Road, Ahmedabad 2.

Shah Brothers.—660/7, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.

Shah & Dalal Traders.—C/o M/s. R. D. Shah and Co., Vohra's Dehla, Kapasia Bazar, Ahmedabad 2.

Shah Nanavati and Co.—Vohra's Dehla, Kapasia Bazar, Ahmedabad 2.

S. Kantilal & Co.—Haridas Acharatlal Market, Kapasia Bazar, Ahmedabad 2.

Sheth Stores Trading Co.—Station Road, Ahmedabad 2. Shree Madhusudan Textiles.—A.P. Industrial Estate, Near Gujarat Housing Colony, Ahmedabad 21.

S. Mohanlal Mfg. Co.—570/2, Reid Road, Ahmedabad 2.

S. Sutaria & Co.—Reid Road, Dhanlaxmi Market, Ahmedabad 2.

Standard Materials Co.—Narottam Building, Kapasia Bazar, Ahmedabad 2.

Sumatilal Popatlal & Co.—697/1, Dhanlaxmi Market, Reid Road, Ahmedabad 2.

Taheralli Sultanalli & Bros.—1475/76, Nava Madhupura, Ahmedabad 1.

Tarkas Engineering Works, Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.

Texing Corporation Ltd.—Reid Road, Ahmedabad 2.

Textile Commercial Co.—Haridas Acharatlal Cloth Market, Ahmedabad 2.

Textile Corporation, 354, Sardar Vallabhbhai Patel Road, Ahmedabad 1.

Textile Supplies Syndicate (I.) P. Ltd.—21, Hirabhai Market, Ahmedabad 22.

Textrade.—Santosh Ambawadi, Ahmedabad 6.

Thakorlal & Sons.—Dalal Building, Kapasia Bazar, Ahmedabad 2.

Trustin Pvt. Ltd.—Girdhar Chambers, Gandhi Road, Ahmedabad 1.

Union Mill Stores Co.—Dalal Bldg., Kapasia Bazar, Ahmedabad 2.

United Textile Industries.—Haridas Acharatlal Market, Kapasia Bazar, Ahmedabad 2.

Usha Industrial Corpn.—Near Ajit Mills, Rakhial Road, Ahmedabad 21.

Vasa Bros.—626/5, Vohora's Dehla, Kapasia Bazar, Ahmedabad 2.

Weltex Engineering & Textile Stores & Co.—Patel Market, Kapasia Bazar, Ahmedabad 2.

Weltex Industrial Trading Co.—Companywala Market, Kapasia Bazar, Ahmedabad 2.

#### PAINTS, ENAMELS AND VARNISHES

Advance Paints.—Bhagat Niwas, Bhutl's Ambli, Ghee-kanta Road, Ahmedabad 1.

Anchor Paints Mfg. Co.—895, Raipur Chakla, Ahmedabad. Blundell Eomite Paints Ltd.—Armit Chambers, Mirzapur Road, Ahmedabad 1.

Encor Paints Mfg. Co.—895, Raipur Chakla, Ahmedabad 1.
Lead Slips Products Pvt. Ltd.—61, New Cloth Market,
Ahmedabad 2.

Paradise Oil & Paints Products.— Sankadishori, Near Haribhakti's Industrial Estate, Ahmedabad 21.

Scientific Printers Materials Mfg. Co.—Mirzapur Road, Ahmedabad 1.

Valian Paints Pvt. Ltd.—38, Madhubhai Mills Compound, Railwaypura, Ahmedabad 18.

#### PIPES AND PIPE FITTINGS

Abdul Samad Abdul Kadar & Sons.—1839, Panchpatti, Kalupur, Ahmedabad 1.

Ambica Tubes Ltd.—Ahmedabad 8.

Austin Trading Co.—Patel Market, K. Bazar, Ahmedabad 2.

B. C. Mashruwala & Bros.—657, Kapasia Bazar, Ahmedabad 2.

B. Lalbhai & Co.—Pankore Naka, Ahmedabad 1.

C. K. Vohra & Co.-Sakar Bazar, Ahmedabad 2.

C. Laxmichand & Co.—Revdi Bazar, Ahmedabad 2.

C. S. Vohra & Co.—Pankore Naka, Ahmedabad 1.

Dahyabhai & Co.→Kapasia Bazar, Ahmedabad 2.

Gokaldas & Sons.—Bala Hanuman, Ahmedabad 1.

Gordhandas & Co.—Outside Panchkuva Gate, Ahmedabad 2.

Indian Hume Pipe Co. Ltd.—Saraspur, Ahmedabad 18.
Industrial Commercial Corporation—572/3, Reid Road, Ahmedabad 2.

Kashiparekh Bros.—564, Reid Road, Ahmedabad 2.

K. C. Mashruwala & Co.—Reid Road, Ahmedabad 2.

Kumar Engineering Co.—Opp. Milk Dairy, Ahmedabad 21. Madhavlal & Co.—Pankore Naka, Ahmedabad 1.

Natwarlal & Co.—Kapasia Bazar, Ahmedabad 2.

Neo Engineering Works.—Mirzapur Road, Ahmedabad 1.
Paras Trading Co.—Opp. Sethia Bldg., Relief Road,
Ahmedabad 1.

Pioneer Engineering Works.—Sukhlal Para, Naroda Road, Ahmedabad 2.

Pipe Suppliers, 1099, Pankore Naka, Ahmedabad 1.

Rajendrakumar Navanitlal & Co.—Kapasia Bazar, Ahmedabad 2.

Spun Pipe Co. of India Ltd.—Gandhi Road, Ahmedabad 1.

#### PLASTIC PRODUCTS

Bharat Plastic & Bakelite Industries.—Sahijpur Bogha, Ahmedabad 2.

Deutron Plastic Industries.—Gujarat Lahu Udyog Vakas Mandal, Shawapur Gate, Ahmedabad.

D. R. Industries.—Outside Panchkuwa Gate, Ahmedabad 2.

Elite Plastic Co.—12-A, Bharatkhand Mills' Compound, Ahmedabad 16.

Everest Plastic Industries.—Gujarat Small Scale Industries Development Mandal, Dhobi Gha?, Outside Shahpur Gate, Ahmedabad 1.

Jyoti Plastic Industries.—14/1, Dhobi Ghat, Outside Shajpur Gate, Ahmedabad 1.

Patel Plastic Industries.—Plot No. 80, Shed No. 3, Naroda Industrial Township, Ahmedabad 1.

Plastic Products Engg. Co.—Layanna, Behind Ahd. Medical Ascn. Hall, Ahmedabad 9.

Slydex Industries.—Shreyas, Shantiniketan Society, Ahmedabad 6.

Synthetic & Polymer Industries.—5-2, Bapu Nagar Mun. Ind. Estate, Ahmedabad 21.

Unipole Plastic Industries Pvt. Ltd.—649, Nanavati Bldg., Gandhi Road, Ahmedabad 1.

#### **PUMP MANUFACTURERS & DEALERS**

Kirloskar Brothers.—Tilak Road, Ahmedabad 1.

Manubhai Parikh & Co.—Badshah Bhuvan, Near Kadia Kuin, Ahmedabad 1.

M. H. Brothers.—Kalupur Road, Ahmedabad 1.

Semicon Pvt. Ltd.—Royal Bldg., Relief Road, Ahmedabad 1.

U. D. Dave & Co.-Relief Road, Ahmedabad 1.

Well-Known Brothers.—Opp. Zakaria Masjid, Relief Road, Ahmedabad 1.

#### RUBBER GOODS

Bharat Rubber Industries.—Nagarvel Hanuman Road, Lakhial, Ahmedabad 21.

Dunlop (India) Ltd.—Diwan Ballubhai Road, Ahmedabad 22.

Firestone Tyre & Rubber Co. of India Ltd.—Salapore Road, Ahmedabad 1.

Frion & Co.-Reid Road, Ahmedabad 2.

Grill Ltd.—Near Oxygen Co. Pvt. Ltd., Rakhial Road, Ahmedabad 21.

Gooduse Rubber Products.—6, New Cotton Mills Compound, Kankaria Road, Ahmedabad 22.

Goodyear India Ltd.—Lal Darwaja, Deepak Chambers, Ahmedabad 1.

Gujarat Rubber Works Ltd.—Deepak Chambers, Station Road, Ahmedabad 1.

H. Chokshi & Co.—Kapasia Bazar, Ahmedabad 2.

India Tyre & Rubber Co. (India) Ltd.—"Patdi House", Ahmedabad 1.

Jaya Bharat Rubber Industries.—Ramnagar, Sabarmati, Ahmedabad 5.

Lathia Rubber Supplies Co. Pvt. Ltd.—108/110, Naroda Ind. Estate, Naroda, Ahmedabad 2.

MSM Universal Tyre & Rubber Co. (Gujarat) Ltd.— Bombay Mercantile Co-op. Bank Bldg., Gandhi Road, Ahmedabad 1.

National Industries.—Mun. Industrial Estate, Bapunagar, Ahmedabad 21.

Simplex Rubber Products Ltd.—Opp. Electric Grid Station, Amraiwadi, Ahmedabad 8.

S. Thakore & Co.—Khadia Char Rasta, Nava Darwaja Road, Ahmedabad 2.

#### SANITARYWARES

Ahmedabad Hardware Stores.—Relief Road, Ahmedabad 1.

Ahmedabad Sanitary Stores.—Khadia Char Rasta,
Ahmedabad 1.

Ahmedabad Stone Supplying Co.— Khadia Char Rasta, Ahmedabad 1.

Ambika Trading Corpn.— Pankore Naka, Gheekanta Road, Ahmedabad 1.

Ashwin & Co.- Khadia Naka, Dariapur, Ahmedabad 1.

Bachubhai Choksi & Co.— Pritamnagar's Dhal, Ellis Bridge, Ahmedabad 6. Chandulal & Co.—Opp. Muni. School, Khadia Char Rasta, Ahmedabad 1.

Fadia Bros.—Pankore Naka, Gheekanta Road, Ahmedabad 1.

Gujarat Tube & Sanitary Store.— Khadia Char Rasta, Ahmedabad 1.

Hatim Brothers.— Opp. Primasha Roja, Gheekanta Road, Ahmedabad 1.

Ideal Ceramic Industries.—659/15, Kapasia Bazar, Ahmedabad 2.

Jayantilal & Co.— Opp. Muni. School, Khadia Char Rasta, Ahmedabad 1.

Jay Hind Building Materials Corpn.— Opp. Sheth V. S. Hospital, Ellis Bridge, Ahmedabad 6.

Lachhwani & Co.- Kapasia Bazar, Ahmedabad 2.

L. G. Amin & Co.— Near Shethia Building, Relief Road, Ahmedabad 1.

Madhavlal & Co.—Pankore Naka, Gheekanta Road, Ahmedabad 1.

Oghadlal & Lallubhai Shah & Co.—Khadia Char Rasta, Ahmedabad I.

Rupesh Trading Co.—Prajapati Bldg., Khadia Char Rasta, Ahmedabad 1.

Sanitary Hardware Stores.—Kapasia Bazar, Ahmedabad 2.

Shah Sanitary Stores.—Opp. English Cinema, Panchkuva, Ahmedabad.

Shums Trading Co.—Pankore Naka, Gheekanta Road, Ahmedabad 1.

Talib & Co.—Pankore Naka, Ramakada Market, Ahmedabad 1.

Vamanbhai & Co.—Opp. Mun. School, Khadia Char Rasta, Ahmedabad 1.

#### SCIENTIFIC & SURGICAL INSTRUMENTS

Ahmedabad Surgical Co.—Opp. Jumma Masjid, Gandhi Road, Ahmedabad I.

Alko Scientific Surgical Co.—Patel Estate, Nagarwel Hanuman Road, Rakhial, Ahmedabad 21.

Ambica Surgical Co.—2313, Surendra House, Gheekanta Road, Ahmedabad 1.

Associated Manufacturers & Suppliers.—1, Panchayat Bldg., Lal Darwaja, Ahmedabad I.

Gujarat Surgical Corpn.—Haji Patel's Pole, Padashah's Pole Naka, Relief Road, Ahmedabad 1.

Hindustan Traders.—Doctor Building, Opp. Zakaria Masjid, Relief Road, Ahmedabad 1.

India Scientific Equipments.—Opp. Jyoti Sangh, Relief Road, Ahmedabad 1.

Jai Hind Surgical Agency.—Near Pankore Naka, East Dhalgarwad Corner, Ahmedabad 1.

Jai Surgico Scientific Industries.—9, Industrial Estate, Ameraiwadi, Ahmedabad 9.

Mehta & Co.—301/A, Behind Town Hall, Ellis Bridge,

Ahmedabad 6.

National Surgical Corporation.—Chandrika Chambers,

Opp. Jansatta, Mirzapur Road, Ahmedabad I. Neo Enterprise.—Padshah's Pole, 533, Relief Road,

Ahmedabad I.
Polar Industrial Corporation—II. Pushnakuni Society

Polar Industrial Corporation.—11, Pushpakunj Society, Kankaria, Ahmedabad 22.

Scientific & Surgical Corporation.—Amar House, Padiakui, Relief Road, Ahmedabad 1.

Shah Trading Co.—Tatni Kadaki, Zaveriwad, Relief Road, Ahmedabad 1. Surgical Equipment Mfg. Co.—1-B, Kalpana Bhumi Estate, Dudheswar Road, Ahmedabad 1.

Unique Surgical Co.—4593/7, Imperial House, Relief Road, Ahmedabad 1.

#### TEXTILE MACHINERY AND SPARE PARTS

Ahmedabad Iron & Brass Factory.—Bharatkhand Cotton Mills Compound, Asarwa Road, Ahmedabad 16.

Ahmedabad Victoria Iron Works Co. Ltd.—Doodhesar Road, Ahmedabad I.

Altex Ltd.—Ramolia Building, Relief Road, Ahmedabad 1. Ashok Textile Industries.—Road 3, East Potalia Lane, Saraspur, Ahmedabad 15.

Brady & Co., Ltd., W.H.—Railwaypura Post, Reid Road, Ahmedabad 2.

Card Clothing & Belting Ltd.—Kapasia Bazar, Ahmedabad 2.

Chemico Textile Industries.—Tagara Mills Compound, Kankaria Road, Ahmedabad 22.

English Card Clothing Co. Ltd.—Maninagar, Ahmedabad 8. Gannon Dunkerley & Co., Ltd.—Ram Nivas, Khanpur Road, Ahmedabad 1.

Indequip Ltd.—Reid Road, Ahmedabad 2.

India Metal Works.—1758/1-2, Mirzapur Road, Ahmedabad 1.

Indo Swiss Textile Machinery Mfg. Co.—Ideal House, Lal Darwaja, Ahmedabad 1.

Industrial Machinery Mfs. Pvt. Ltd.—Near Ahmedabad New Cotton Mills, Off Amraiwadi Road, Ahmedabad 8. Industrial Spare Parts Co.—Relief Road, Kadia Kuin, Ahmedabad 1.

Metal Moulders Pvt. Ltd.—Indeshwar Road, Ahmedabad 1. National Machinery Mfg. Works.—Gheekanta Road, 652-10. Panchal Blocks, Ahmedabad 1.

Ormerods (India) Ltd.—Kapasia Bazar, Ahmedabad 2.

Panchal Babulal & Brothers.—Kashiniwas, Rupapari, Dariapur, Ahmedabad 1.

Pioneer Engineering Works.—Naroda Road, Ahmedabad 2.

Sapt Textile Products (India) Ltd.—Near K. M. Shah's Hospital, Lal Darwaja, Ahmedabad 1.

Sen & Mettenheimer Pvt. Ltd.—Cama Hotel Bldg., Khanpur, Ahmedabad 1.

Shivlal Virchand Contractor.—Near Potalia Talav, Saraspur, Ahmedabad 18.

Smith Engineering Works.—Rupapari Dariapur, Ahmedabad 1.

Shri Ambica Machinery Mfrs.—Near Kankaria Loco Siding, Ahmedabad 8.

Shri Bansidhar Pvt. Ltd.—Kankaria Road, Ahmedabad 22.

T. Maneklal Mfg. Co. Ltd.—Vatva, Ahmedabad.

Textile Fabrics Corporation.—Devkinandan Cloth Market, Crosslane, Ahmedabad 2.

United Textile Industries.—Haribhai Archartlal Market, Ahmedabad 2.

Voltas Ltd.—Ashram Road, Ahmedabad 1. Zach Rajguru Mfg. Co.—Vatva, Ahmedabad.

#### BARODA TRADES & PROFESSIONS

ACME Braiding & Elastic Works, Old Rangshala Compound, Bahucharaji Road, Baroda.

A.D. International, Parasuram Bldg., Sayajiganj, Baroda 5.

Adyashakti Engineering Works, M. Gandhi Road, Baroda. Aims Oxygen Pvt. Ltd., Padra Road, Baroda 5.

Air Conditioning Specialities, 160, Patolia Pole, Gendi Gate Road, Baroda 1.

Alembic Chemical Works Co. Ltd., Baroda 3.

Alembic Glass Industries Ltd., Baroda 3.

Allied Electrical Industries, Near Bharat Metal Industries, Juni Rangshala, Bhutdi Zampa, Baroda.

Allied Pharmaceutical Laboratories, Jombubet, Dandia Bazar, Baroda.

Alkha Steel Industrial Corporation, Bank Road, Baroda. Ambica Iron Works, Nagarwada, Hakim Sahib's Wada,

Ambica Mills No. 3, Padra Road, Baroda.

Baroda 1.

Ammi Scientific & Surgical Co., Apsara Cinema Compound, Pratap Nagar, Baroda 4.

Amul Transmission Line Hardware Pvt. Ltd., Parikh Estate, Dabhoi Road, Baroda 4.

Apollo Pharmaceutical Works, Pratapnagar, Baroda 4.

Arora Surgical Co., Opp. Jubilee Garden, Baroda.

Ashok Chemicals Ltd., Goyal Gate, Baroda.

Ashok Engineering Works, 2/6, Industrial Estate, Baroda 3.

Ashok Optical Industries, Opp. Municipal Stores, Nawa Bazar, Baroda 1.

Ashok Products, Pratap Bungalow, Baroda 6. Asian Engineering Co., Pratapnagar, Baroda 4. Atul Tiles & Marbles Pvt. Ltd., 3/16, Industrial Estate, Baroda 3.

Bandraj Ball Co. Pvt. Ltd., G. P. Industrial Estate, Chhani Road, Baroda 2.

Baroda Automobiles, Opp. Jubilee Baug, Baroda.

Baroda Box & Carton Mfg. Co., Behind Railway Station, Baroda.

Baroda Brushware Co. P. Ltd., Behind Rly. Station, Distillery Compound, Baroda 3.

Baroda Crystal Glass Works Ltd., P.O. Box 87, Pratapnagar, Baroda 4. Baroda Electronic Industries Put. Ltd. 78, Chhani Road

Baroda Electronic Industries Pvt. Ltd., 78, Chhani Road, Baroda 2.

Baroda Engineering and Moulding Works, Baranpura Naka, Pratapnagar, Baroda 4.

Baroda Iron and Steel Industries, Pratapnagar Road, Baroda 4.

Baroda Industrial Mills Co. Ltd., Bhutdi Zampa, Baroda. Baroda Minerals, 13, Pratapguni, Baroda 2.

Baroda Optical Industries, Hathikhana Road, Baroda.

Baroda Packagings, 3-8, Industrial Estate, Baroda 3.

Baroda Rubber Industries Ltd., 4/11-12, Industrial Estate, Baroda 3.

Baroda Spg. & Wvg. Co. Ltd., Post Box 57, Baroda.

Bharat Automobiles, Behind Nyaya Mandir, Baroda. Bharat Casements Pvt. Ltd., P. Box 89, Baroda.

Bharat Cement Pipe Industries, Post Samiyala, Dist. Baroda.

Bharat Chemicals, Ranmuktoshwar Road, Acid Mill Compound, Pratapnagar, Baroda 4.

Bharat Lindner Pvt. Ltd., Industrial Estate, Baroda 3.

Bharat Machinery Corporation, Kothi Pole, Raopura, Baroda.

Bharat Metal Industries, Pratapnagar Road, Baroda. 4. Bharat Pickers and Buffers Mfg. Co., Bank Road, Baroda 6. Bharat U Staple Mfg. Works, Meera Niwas, Sayajiganj Baroda.

Bicycle Mfg. Inds. Pvt. Ltd., Industrial Estate, 4/4, Gorwa, Baroda 3.

Bipin Fruit Products, A-2/1, Industrial Estate, Baroda 3. Blitz Products, Burhanpur, Baroda.

Bright Bars Engg. Works, Ajwa Road, S. K. Patil Estate, Baroda.

British Radio Corporation P. Ltd., Palace Road, Baroda. Cambay Saw Mill Textile Accessories Co., Madan Zampa, Baroda.

Capto Caps Pvt. Ltd., G. P. Patel Estate, Chhani Road, Baroda 2.

Central Chemical Industries, Pratapnagar, Baroda 4.

Chandan Metal Products Private Limited, Gorwa Road, Chemical Industries, P. O., Baroda 3.

Chemicoat Ltd., P. O. Atladra, Dist. Baroda. Chemitex Industries, Bank Road, Baroda.

Cometal Industries, C/2/23, Industrial Estate, Baroda 3

Desai Tin & Pencil Mfg. Co., 28, Alkapuri, Baroda.

Dhiraj Industries, Parikh Estate, Pratapnagar, Baroda 4. Dinesh Mills Ltd., Padra, Baroda 5.

Dye-Azo (Private) Ltd., C/2/20, Industrial Estate, Baroda 3.

Electro Industries Ltd.—Industrial Area, Pratapnagar, Baroda 4.

Electro Mechanical Industries, Subhanpura, Opp. Tank, Baroda 7.

Everest Industrial Corporation Private Ltd., Pratapnagar, Baroda 4.

Ganesh Machinery Traders, Laheripura, New Road, Baroda.

Gaskets & Oilseals Private Ltd., P.O. Box No. 89, Baroda. General Electrical & Mechanical Corporation, Industrial Estate, Baroda 3.

General Suppliers & Manufacturers, Haribhakti's Wadi, Timber Market Road, Baroda.

Good Luck Oil & Paint Co., Post Box 120, Baroda.

Graphite and Mineral Industries, Chhani Road, Baroda 2. Griha Laxmi Sira Colo Pvt. Ltd., 16, Nandan Co-op. Society, Baroda 5.

Gujarat Clip Mfrs., Ajwa Road, S. K. Patil Estate, Baroda.

Gujarat Machine Tools Industries, 1-10, Industrial Estate, Baroda-3,

Gujarat Refrigeration Corp., 16, Nandanyan Co-op. H. Scty., Behind B. G. Rly. Station, Baroda 5.

Gujarat Rubber Works Ltd., Pratapnagar, Baroda 4.

Gujarat State Fertiliser Co., P. O. Fertiliser Nagar, Baroda.

Halifax Engineering Co., Anandpura, Baroda.

Harihar Industries, Nagarwad, Baroda.

Hari Om Agricultural Tools Mfg. Co., Koyli, Baroda.

Hind Foundries Ltd., Grid Road, Baroda 5.

Hindustan Brown Boveri Ltd. P. O. Box 124, Baroda.

Hindustan Electric Motor Co. Ltd., Industrial Area, Baroda 3.

Hindustan Ophthalmic Mfg. Co., Opp. Kothi Bus Stand, Baroda.

Hindustan Polythene & Plastic Works, Ind. Arεa, Pratapnagar, Yamun Maili Road, Baroda 4.

Hindustan Tractors Ltd., Vishwamitr, Baroda.

Honest Surgical Co., Mahajan's Pole, Raopura, Baroda. Ideal Structurals Pvt. Ltd., Post Box No. 68, Baroda.

Indian Hume Pipe Co. Ltd., Pratapnagar, Baroda 4. Janata Optical Industries, Rajmahal Road, Baroda.

Jasmann Machine Tool Corporation, Anandpura, Baroda.

Jay Hind Sale & Mechanical Works, Gendi Gate Road,
Baroda.

Jaybharat Poles Mfg. & Engineering Co., 4/5, Industrial Estate, Baroda 3.

Jayendra Metal Industries Ltd., Lokamanya Tilak Road, Baroda 5.

Jeevan Products. G P. Industrial Estate, Chhani Road, Baroda 3.

Johnson Electric Co., Chhani, Road, Baroda 2.

Jopeos Mfg. Co. Ltd., Sayajiganj, Baroda 2.

Jyoti Limited, Baroda 3.

Jyoti Calor-Emag Limited, Baroda 3.

Laxmi Safe & Engineering Co., Sayajiganj, Baroda.

Laxmi Steel Industries, Opp. Baroda College Sayajiganj, Baroda.

Laxmi Vijay Brass & Iron Works, Pratapnagar Road, Baroda 4.

Mahagujarat Engineering Industries, Mahavirswamy's Pole, Raopura, Baroda.

Mahalaxmi Iron & Engg. Works, Bahucharaji Road, Baroda.

Mahendrakumar & Co., Laheripura New Road, Baroda. Mandar Ampoule Co., 2/11, Industrial Estate, Baroda 3.

M. C. Kothari, Booksellers, Publishers & Newspaper Agents (Times of India), Raopura Road, Baroda.

Meghraj Machines, 2/9, Industrial Estate, Baroda 3. Mercury Pharmaceuticals, 2/B & 2/14, Industrial Estate,

Baroda 3.

Modern Engineering Co., Laheripura New Road, Baroda.

Modern Engineering Co., Laheripura New Road, Baroda. Narayan Chemical Industries, Ganpule Building, Raopura, Baroda.

Navanidh Industries P. Ltd., Yamuna Mills Road, Pratapnagar, Baroda 4.

New India Industries Ltd., Jetalpur Road, Baroda. Naz Box Mfg. Co., Gorwad, Gendi Gate, Baroda.

N. J. Metal Screens Manufacturers Pvt. Ltd., Ramnivas, Race Course Road, Baroda 5.

Novel Engineering Works, Pratapnagar, Baroda 4.

Novel Utility Co., Barda Battery Premises, Pratapnagar Ind. Area, Baroda-4.

Olympic Chemical Industries Ltd., Nagarwada, Baroda. Patel Tacks Factory, Paramount Industrial Compound, Pratapnagar Road, Baroda 4.

Perfect Engineering Works, Pratapnagar Road, Baroda 4. Pest Control (India) P. Ltd., 31, Viswas Colony, Alkapuri, Baroda 5.

Pioneer Equipment Co. Pvt. Ltd., A1-5/6, Industrial Estate, Baroda 3.

Pioneer Foundry Machineries, Old Padra Road, Baroda-5. Poornima Industrial Works, Pratapnagar Road, Baroda 4. Power Cables Pvt. Ltd., Yashkamal Lokamanya Tilak Road, Baroda 5.

Prakash Food Industries, Behranpura, Baroda.

Precision Bearings India Ltd., P.O. Box No. 64, Baroda. Precision Engineering Industries, Star Chemical Compound, Pratapnagar, Baroda 4.

Pure Products & Madhu Canning Ltd., C/2-17, Industrial Estate, Baroda-3.

Quality Engineering Works, Behind Chokhandi Vegetable Market, Bakarawadi Road, Baroda 4.

Rainbow Texdyes Corporation, Pratapnagar Road, Baroda 4.

Ramanco Pvt. Ltd., Industrial Area, Pratapnagar, Baroda 4.

Raymon Glues & Chemicals, 29, Arunodaya Society, Baroda-5.

Relayaka Industries, Chawan's Bungalow, Sayajiganj, Baroda 5.

Roller Chain Industries Pvt. Ltd., 5/2, Industrial Estate, Baroda 3.

Royal India Industries, Zaverchand Laxmichand Street, Mandvi Road, Baroda.

Sakti Files Co., Radhakrishna's Pole, Palace Road, Baroda.

Sanitex Chemical Industries P. Ltd., Baroda 3.

Sarabhai Chemicals, Wadi Wadi, Baroda.

Sarabhai Engineering Group, Wadi Wadi, Baroda 5. Sarabhai Merck Ltd., Post Box No. 80, Baroda 5.

Satyadev Chemicals Pvt. Ltd., P.O. Box 101, Prataphagar Road, Baroda 4.

Sayaji Iron & Engineering Co. Pvt. Ltd., Chhani Road, Baroda 2.

Sayaji Mills Ltd., Baroda 3.

Shakto Engg. & Mfg. Co., Bahucharaji Road, Baroda.

Shiv Shakti Engg. Co., New Khanderao Road, Opp. Jawahar Society, Baroda-4.

Shree Ram Engineering & Mfg. Industries, Pratapnagar,

Shree Shakti Pvt. Ltd., Bapu Sadan, Sayajiganj, Baroda.

Shree Yamuna Mills Co. Ltd., Pratapnagar, Baroda 4.

Shreyas Chemicals, Dandia Bazar, Baroda 1.

Shriji Engineering Works, Bakarawadi, Madan Zampa Road, Baroda 1.

Shroff Chemical Works, Raopura Tower, Baroda.

Sigil India Service P. Ltd., 1/3, Industrial Estate, Gorwa Road, Baroda 3.

S. I. Works Pvt. Ltd., Chhani Road, Baroda.

Spunpipe Co. (Baroda) Pvt. Ltd., Rambhai Mansion, Savajiganj, Baroda 5.

Standard Electronic Industries, 78, Chhani Road, Baroda 2. Standard Mechanical & Iron Works, Pratapnagar Road, Baroda-4.

Standard Radiators Pvt. Ltd., Industrial Estate, Baroda 3. Stanrel Pvt. Ltd., Pratapnagar Road, Baroda 4.

Star Chemical Works, Pratapnagar, Barods 4.

Suhrid Geigy Ltd., P. Box No. 48, Wadi Wadi, Baroda. Sura Chemicals, 9, Shanti Niwas, Pratapganj, Baroda.

Suessen Textile Bearings Ltd., Bombay-Ahmedabad National Highway, No. 8, Pratapnagar P.O., Baroda-4.

Swastik Engineering & Manufacturing Co. Pvt. Ltd., Bahucharaji Road, Baroda.

Synbiotics Ltd., Post Box No. 129, Wadi Wadi, Baroda-5. Tarun Industrial Corporation, Pratapnagar Road, Baroda 3. Tensile Steel Ltd., Viswamitra Road, Baroda.

Textile Aniline & Chemical Co. P. Ltd., Pratapnagar Road, Baroda 4.

Textile Appliances & Instruments Co. P. Ltd., 81, Alkapuri, Baroda.

Transpek Industries Pvt. Ltd., S. No. 635, Kalali Road, P.O. Atladra, Baroda.

Trigon Metal Sections, 4/15, Industrial Estate, Gorwa Road, Baroda 3.

Universal Dyestuff Industries Ltd., Sakarda District, Baroda.

Vajresh P. Ltd., Kantawalla Bldg., Limdapole, Baroda. Vannit Industries, A-2/7, Industrial Estate, Baroda 3.

Vasant Engineering Ltd., Pratapnagar, Baroda 4.

Venus Texdyes Corporation, 7, Parikh Estate, Dabhoi Road, Baroda 4.

Vishnu Indu trial Works, Pratapnagar, Baroda 4.

Voltamp Transformers Pvt. Ltd., 5/3, Industrial Estate, Baroda-3.

Yesha Electricals Pvt. Ltd., 54, Alkapuri, Baroda-5. Zaverchand Gaekwad Pvt. Ltd., Padra Road, Baroda.

### COMMERCIAL FIRMS IN BOMBAY

A. Boake, Roberts & Co. (India) Ltd., Harilela House, Bhagatsingh Road, Bombay 1.

A. C. E. C. India Pvt. Ltd., 96, Apollo Street, Bombay 1.

A. H. Shah & Co. Pvt. Ltd., Nanabhoy Mansion, Sir P. M. Road, Bombay 1.

Abdoolally Noorbhoy, 122-24, Abdul Rehman Street, Bombay 3.

Abraham, D. & Sons Pvt. Ltd., Hague Building, Sprott Road, Ballard Estate, Bombay 1.

Abraham, Shah & Sons, Hague Building, Sprott Road, Ballard Estate, Bombay 1.

Abrawheel Pvt. Ltd.—107, Sarang Street, Bombay 3.

ACC—Vickers—Babcock Ltd., 16, Maharshi Karve Road, Bombay 20.

Adamji Lookmanji & Co., Rahimtoola House, Homji Street, Fort, Bombay 1.

Addressograph-Multigraph Corporation, National Cash Register Co., 125, D. Vachha Road, Bombay 20.

Adverts Pvt. Ltd., Syndicate Bank Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Advani-Oerlikon Pvt. Ltd., Radia House, 6, Rampart Row, Bombay 1.

Aemphico Engineering Works, Swadeshi Mills Estate, Opera House, Bombay 4.

Afco Ltd., 9, Wallace Street, Fort, Bombay 1.

Afro-India Trading Co., 307/308, Himalaya House, Palton Road, Bombay 1.

### For your requirements of:

Galvanised Wire Netting
Wires of all kinds
Plywood
Cement Sheets
Zinc Sheets
Plastic Sheets
Synthetic Wire Netting
Welded Wire Mesh
Expanded and Perforated Metals
Filter Cloth
Stainless Steel Wire Netting
etc. etc.

Contact

### A. A. MORBIWALA & CO.

109-111, Abdul Rehman Street, Bombay 3.

Phones : { Office : 323280 Resi. : 365508 Grams: "VARNISH".

# ADAIR, DUTT & CO. (INDIA) PVT. LTD.

\*

Importers and Dealers of

All kinds of Scientific Instruments,
Photographic Cameras

\*

Syndicate Bank Building, Sir Phirozshah Mehta Road, Fort, Bombay-I

> Phone: 263558 Grams: "LABORIND"

Head Office: Calcutta

Agfa-Gevaert India Ltd., Merchant Chamber, 41, New Marine Lines, Bombay 20.

Air Conditioning Corporation Ltd., Elphinstone Building, 10, Veer Nariman Road, Bombay 1.

Air France, Stadium House, Churchgate, Bombay 20.

Air India, Nirmal, Nariman Point, Bombay 20.

Ajit India Private Ltd., 408, Himalaya House, Palton

Road, Bombay 1.

Alcock, Ashdown & Co., Ltd., Defence Works, Mazagon,

Alcock, Ashdown & Co., Ltd., Defence Works, Mazagon, Bombay 10.

Alexander & Raymond (Bombay), Sitaram Building 'G', Palton Road, Bombay 1.

Alexandra Engineering Works Private Ltd., 29, Quay Street, Darukhana, Bombay 10.

Alfred Herbert (India) Private Ltd., Kaiser-i-Hind Building, Sprott Road, Ballard Estate, Bombay 1.

Allenburry Engineers Pvt. Ltd., 5-A, Horniman Circle, Fort, Bombay 1.

Alliance Assurance Co. Ltd., The International, 16, Queen's Road Estate, Bombay 20.

Alu Capsules Ltd., L. & T. House, Dougall Road, Ballard Estate, Bombay I.

Aluminium Hindustan Private Ltd., Bank of Baroda Building, Apollo Street, Bombay 1.

Amar-Dye Chem Ltd., Rang Udyan, Sitaladevi Temple, Road, Mahim, Bombay 16.

Amber Tips Pvt. Ltd., 75, New Bardan Lane, Mandvi, Bombay 3.



#### ADVANI-OERLIKON PVT. LTD.

Manufacturers of:

Arc Welding electrodes, fluxes, equipment and Electronic products.

Regd. and Head Office: Radia House, 6, Rampart Row, P.O. Box No. 1546, Bombay-1.

Phone: 290505. Grams: "CITOREX", Bombay. Telex: 011-2781.

Area Offices:

Bombay: Dr. Shirodkar Road, Parel, Bombay 12.

Phones: 442867; Godown: 441600.

Calcutta: P-6, C.I.T. Road, Scheme LV (Moulali), Calcutta-14.

Phones: 243017, 246223-4-5. Grams: "CALCITOREX" Calcutta.

New Delhi: 6-A, Ring Road (Lajpat Nagar), P.O. Box 3503, New Delhi-24.

Phones: 623630 & 62244. Grams: "CITOREX", New Delhi, Telex: 031-7369.

Madras: Mohan Mansion, 38-C, Mount Road, Madras-6.
Phone: 82023. Grams: "MASCITOREX", Madras.

Telex: 041-646.

Raipur: Industrial Estate, Bilaspur Road, Raipur, M.P. Phones: 2699, 2296/7. Grams: "CITOREX", Raipur.

Vizag Office: Port Reclaimed Area, Post Box No. 1, Visakhapatnam.

Phones: 3337, 2881. Grams: "CITOREX",

Visakhapatnam.

Plants:

Bombay: Lalbahadur Shastri Marg, Bhandup, Bombay-78.

Phones: 592566, 592567. Grams: "CITOREX", Bhandup.

Raipur: Bilaspur Rd., P.O. Box No.19/83, Raipur (M.P.).

Phones: 2296 & 2297. Grams: "CITOREX", Raipur.

Madras: Melakottaiyur Village (Via) Vandalur, Chingleput District, Tamil Nadu.

Poona: Akurdi Village, Chinchwad, Poona-19.

Phones: 8577, 8351-52. Grams: "CITOREX",

Chinchwad. Telex: 014-231.

Sewree Works: Near Tata Oil Mills, Hay Bunder, Sewree, Bombay-33.

Phone: 376941.

# AGFA-GEVAERT INDIA LIMITED

Head Office:

Merchant Chamber, 41, New Marine Lines, Bombay-20

Phones: 298015, 298062 and 298164.

Grams: "AGFAGEVA".

Chairman: D. M. Ghia.

Director: E. Rittinghaus.

Secretary: S. R. A. Amudhan.

Chief Accountant: Harikant V. Clerk.

#### Marketing Division:

Marketing Manager: R. L. Narayan..

Asst. Marketing Manager: P. V. N. Moorthy.

#### Branches :

Kasturi Building, Jamshedji Tata Road, Bombay 20. Phones: 296188 and 296199. Grams: "AGFAPHOTO". Branch Manager: N A. Shroff Vohra House, 1/25, Asaf Ali Road, New Delhi-I. Grams: "AGFAPHOTO". Branch Manager: R. Sitaram 2-A, Shakespeare Sarani, Calcutta-16. Grams: "AGFAPHOTO". Branch Manager: B. F. Doshee 34, Mount Road, Madras-2. Grams: "AGFAPHOTO". Branch Manager: C. A. Padmanabhan.

#### Sole Agents for:

Agfa-Gevaert cameras, accessories, Projectors, darkroom equipments, films, papers, chemicals, Agfacolor etc. Agfa-Gevaert A.G., Leverkusen, West Germany; Agfa-Gevaert X-ray films, process films and plates, aerial films, microfilms and equipments, scientific and technical films etc.: Gevaert-Agfa N. V. Mortsel, Belgium; 8 mm and 16 mm Paillard Cine cameras, Projectors and equipment: Bolex International S. A. Ste-Croix, Switzerland, Linhof Precision cameras and accessories: Linhof N. K. K. G., Munchen 25, W. Germany; Metz Electronic Flash units: Messrs. Metz Apparatewerke, Fuerth/Bayern, W. Germany; Autophot precision photocopying and reproduction equipment: Messrs. Foto-Clark Friedrich Grunn K.G., Bonn 53, W. Germany; Indigenous Agfa Photographic papers and cameras as well as complete range of AGIL photographic equipment, accessories and AGIL tested chemicals.

American Express Co., Inc., Oriental Building, 364, Dr. Dadabhoy Naoroji Road, Bombay 1.

American International Underwriters (India) Pvt. Ltd., Warden House, Sir Phirozshah Mehta Road, Bombay 1. American Refrigerator Co. Ltd., Sadhana Rayon House,

D. N. Road, Bombay 1.

Amritlal & Co., Pvt. Ltd., "Rang Udyan", Sitaldevi Temple Road, Mahim, Bombay 16.

Amrutanjan Ltd., 249, P. D.'Mello Road, Fort, Bombay 1. Amzel Pvt. Ltd., 95, Oomer Park, Bhulabhai Desai Road, Bombay 26.

Anandji Haridas & Co. Pvt. Ltd., 165-A, Frere Road, Bombay 1.

Andhra Pradesh Paper Mills Ltd., Shreeniwas House, Waudby Road, Fort, Bombay 1.

Andrew Yule & Co., Ltd., 32, Nicol Road, Ballard Estate, Bombay 1.

Anglo-American Marine Co. Ltd., 98, Subhas Road, Bombay 2.

Anglo-Thai Corporation, Ltd., Ewart House, Bruce Street, Bombay 1.

Anil Hardboards Ltd., Lakshmi Insurance Building, Sir Pherozshah Mehta Road, Bombay 1.

Anilkumar & Co. Pvt. Ltd., Ghia Bldg., 121-23, Princess Street, Bombay 2.

Antifriction Bearings Corporation Ltd., 132, Dr. A. Besant Road, Bombay 18.

A. P. V. Equipment Co. Ltd., Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay 1.

Arc Brazer, 84, Foras Road, Bombay 8.

Armstrong Smith Ltd., Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay 1.

## ALLIBHOY SHARAFALLY & CO. PRIVATE LTD.

(Established: 1878-Incorporated: 1938)

Printers, Publishers, Booksellers, Book Binders, etc. Mohamadi Buildings, Gunpowder Road, Mazagon, Bombay 10 (DD).

Telegraphic Address: "KORAN."
Telephone Nos. 378148 & 378149

\*

#### Proprietors of :

Mohamadi Fine Art Litho Works, Lithographers, Offset & Letterpress Printers, Box makers & Cartons mfrs.

Matba-e-Mohamadi (Mohamadi Litho Press), Publishers of Holy Quran, Arabic, Persian, and other calliographed literature.

Shop: 373, Ebrahim Rahimtullah Road, Bombay 3. Telephone: 332711.

#### ALTEX PRIVATE LIMITED

Textile Mills Stores & Machinery Importers and Manufacturers' Representatives.

P. O. Box No. 1096.

Phone: 251082.

Grams: "BETEX".

Managing Director:
Minocher Ardeshir Bharucha.

Sole Agents for :

Gordon Woodroffe (Belting) Pvt. Ltd., Madras.
"RAMS HEAD" Brand Leather Belting, Endless Cone
Drum Belts.

Messrs. Chandabhai Bros. & Co., Ahmedabad.
"INVICTA" Brand Spring Buffers Riveted and/or Lace
Sewn, also pickers.

Crown Spg. & Mfg. Co., Ltd., Bombay.
"ASHA" Brand Cotton Healds and Steel Reeds, and also Inserted Eye Wire Healds. "ASHA" All Metal Reeds, Heald Piecing Yarn & Dobby Harness.

H. D. Nariman & Son, Santa Cruz, Bombay.

"NORMAN" Brand Highly Concentrated Standard Red and Blue Colour Stamping Paste, also "STAMTEX" Brand Cloth Stamping Paste, Light Blue, Navy Blue, Royal Blue, Post Office Red and Other Colours also Fast to Bleach Black, Marking Ink, Writing Ink, Selvedge Ink, etc.

Messrs. Indian Standard Metal Co., Ltd., for P. I. V. Gears Indigenous Make & Chains.

Pulrose Co., Ltd., Manchester, England.
"ADELPHI" Flat Cleaners Lint Raising & Bandage cutting
machines.

Wallwork Gears Ltd., London S.E. 7. Stamping machines, P.I.V. Gears and Metal Alloy Bobbins.

Knit Foulds Limited, Kapurthala "Gripit" Nylon leather Sandwich, Belting & Endless Belts.

Rohtas Industries Ltd., Dalmianagar Red Vulcanised Fibre Card Cans.

Branch Offices:

Ramolia Building, 1st Floor, 2888/1, Relief Road, Ahmedabad 1.

Phone No. 24750.

Also at

5/127, Avanashi Road, Coimbatore. Phone 3195.

Sub-Agents:

K. Poddar, 15/56, Civil Lines, Kanpur; Krishna Trading Co., Ishwar Bhawan, Beawar; Allied Textiles, 24/157, Shakti Nagar, G. T. Road, Delhi 7. Texind Co., 79, Rue De Cantine, Pondicherry. Aromatic Products & Chemicals Pvt. Ltd., Prospect Chambers Annexe, Dr. D. N. Road, Bombay 1.

Asbestos Cement Ltd., Worli, Bombay 18.

Asbestos, Magnesia & Friction Materials Ltd., Bombay-Agra Road, Ghatkopar, Bombay 86-AS.

Asea Electric India Private Limited, Asea House, Goa Street, Ballard Estate, Bombay.

Asian Trading Corporation, 310, The Mirabelle, 33/A, Marine Lines, Bombay 20.

Askay & Co. (Private) Ltd.—279, Bazargate Street, Fort, Bombay 1.

Asmopal Engineering Co., Sunder Mahal, 141, Marine Road, Bombay 2.

Asok Brothers Private Ltd., 104, Apollo Street, Fort, Bombay.

## AHMEDABAD ELECTRICITY COMPANY LTD.

Registered Office : Killick House, Home Street, Fort, Bombay 1.

Managing Agents :

#### KILLICK INDUSTRIES LTD.

Phone : 262311. Grams : "KINDRED ".

Head Office Administration Department :

No. 5, Graham Road (4th Floor), Ballard Estate, Bombay I.

Grams: "ADISEBS".
Phones: 261741/261742 & 261743.

Local Office :

Electricity House, Lal Darwaja, P. O. Box No. 37, Ahmedabad.

Phone: 24261. Grams: "ELECTRIC". (Ref. Ahmedabad Section).

Associated Apparel Pvt. Ltd., Raj Mahal, 84, Veer Nariman Road, Bombay 20.

Associated Bearing Co. Ltd., Mahatma Gandhi Memorial Building, Netaji Subhas Road, Bombay 2.

Associated Capsules Pvt. Ltd., 131, Kandivli Industrial Estate, Bombay 67.

Associated Cement Co. Ltd., Cement House, 121, Maharshi Karve Road, Bombay 20.

Associated Corporation of Industries (India) Private Ltd., Commerce House, Currimbhoy Road, Bombay I.

Associated Electrical Industries (India) Ltd., Magnet House, Dongall Road, Ballard Estate, Bombay 1.

Associated Export & Import Syndicate, 345, Kalbadevi Road, Bombay 2.

Associated Instrument Manufacturers (India) Pvt. Ltd., India House, Fort Street, Bombay 1.

# ALCOCK ASHDOWN & CO., LTD.

Defence Works, Mazagon, Bombay-10 DD.

Registered Office:

16, Bank Street, Fort, Bombay-I BR.

\*

Structural, Mechanical, Marine & Electrical Engineers, Shipwrights, Launch, Tugs, Barge, Trawlers, Floating Docks & Gates, Designers & Fabricators of Galvanised Steel Structures for Transmission Line Towers & Railway Electrification Structures, E.O.T., Wharf, Dock and other Cranes, KELVIN Marine & Industrial Engines.

\*

Telegraphic Address: "ASHDOWN".

Phone Nos.: 372584-86 (Works) and 251321-26 (Office), P.O. Box 816.

Branch: Ramasar Works, Bhavnagar.

Phone No.: 3415.

Telegraphic Address: "ALCOCKS".

Codes used: A.B.C. 4th, 5th & 6th Editions, Boe, Bentley's Complete Phrase Code & Bentley's Second Phrase Code.

\*

Agents for:

British Ropes Ltd., Galvanised Flexible Steel Wire Ropes etc., Transport Equipment (Thornycroft) Ltd., Marine & Industrial Engines. Edward Parker & Co. Ltd., "Titano" and Best Oak Leather Belting.

## AMIRUDIN SHALEBHOY TYEBJEE & SONS

"Shale" Building, Bank Street, Fort, Bombay.

Shipchandlers, Government & Railway
Contractors

\*

Residence Phone Nos.: 353831, 521299 & 367560.

Grams: "PILOTACE".

\*

Office Telephone Nos.: 257982-258633.



## THE ANTIFRICTION BEARINGS CORPORATION LIMITED

Manufacturers of:

Roller Bearings in Technical Collaboration with Messrs. Steyr Daimler Puch A. G., and Ball Thrust Bearings.

Registered Office:

401, Kakad Chambers, 132, Dr. Annie Besant Road, Worli, Bombay 18.

Phones: 378129/373467. Grams: "BALLTHRUST".

Board of Directors :

Shri C. C. Desai, Chairman.
Shri M. I. Patel, Managing Director.
Shri C. U. Shah.
Shri J. V. Patel.
Shri A. K. Patel.
Shri K. M. Diwanji.
Dr. F. Wieland.
Dr. Hans Roeslar.
Shri Y. H. Malegam—Alternate Director to Dr. Hans Roeslar.

#### **ASBESTOS CEMENT LIMITED**

0

Regd. Office: Worli, Bombay 18 (WB).

Branches: Calcutta, P.O. Box 374. Madras, P.O. Box 350. Podanur (Coimbatore Dist.). Marshall House, Hanuman Road, New Delhi. Jabalpur, P.O. Box 70.

Factories: Kymore (Madhya Pradesh), Mulund (Bombay), Kidderpore (Calcutta), Podanur (Coimbatore Dist.).

Manufacturers and Distributors of: "EVEREST" Asbestos-Cement Building Products, Rainwater and Soil Pipes, Gutters and Fittings, and Glass Reinforced Plastic Products.

Chairman: H. D. S. Hardie. Managing Director: A. D. Pandit.

Directors: A. J. Austen, P. K. Mistry, and F. C. Badhwar.

Telephone Numbers:

Mulund (Bombay) — 592441. Worli (Bombay) — 372261. Calcutta — 45-2001. Madras — 86209.

Podanur — Coimbatore — 24116.

New Delhi — 48375-622504.

Jabalpur — 2125.

Kymore — Katni — 312.

## THE ASSOCIATED CEMENT COMPANIES, LIMITED

Cement House, 121, Maharshi Karve Road, Bombay 20.

P. O. Box No. 397, Bombay 1.

Tel. Addresses:

'ACCAGENCY', 'ACCPURCHEZ', 'ACCADMIN', 'ACCGEOLOGY', 'ACCCOLIERY', 'ACCEXPAN', 'ACCPERSNEL', 'ACCFINACS', 'ACCFABRIK', 'ACCREST', 'ACCPROD', 'ACCLABOUR', 'ACCEXECUTE', 'ACCSTAFF'.

Phone No. 298800.

Directors:—Mr. N. A. Palkhivala (Chairman), Mr. Dharamsey M. Khatau, Mr. Pratapsinh M. Vissanji, Mr. S. Moolgaokar, Mr. P. S. Mistry, Mr. K. C. Bakhle, Mr. N. K. Suntook, Mr. Kantilal Nahalchand, Mr. S. R. Vakil, Mr. K. K. Lala, Maharajkumar Rajkishore Nath Shah Deo, Mr. M. L. Apte, Mr. Yogindra N. Mafatlal, Mrs. C. Ammanna Raja, Mr. Devi Sahai Mathur, Mr. Sushil Kumar Kumar, Mr. M. Mukerjee, Mr. P. K. Mistry, Mr. B. N. Reporter, Mr. K. R. Coorlawala, Mr. Ranvir M. Khatau.

Managing Director:—Mr. P. K. Mistry. Technical Consultant:—Dr. R. R. Hatangadi.

Secretary :- Mr. H. D. Unwala.

Management Advisory Committee:—Mr. S. N. Cooper, Mr. S. R. Dolasa, Mr. P. N. Gulati, Mr. J. P. Munsiff, Mr. S. N. Sopory, Mr. S. V. Utamsingh.



47, Podar Chambers, Parsee Bazar Street, BOMBAY I.

Grams:
"AMONSUCPH" — Bombay

Telex: 011-2113 — Bombay.

Phones: 250281, 257761 & 299814.

Indenters Manufacturers' Representative

Importers
Chemicals
Pharmaceuticals
Hardware
Metals
Papers
Stationeries & Sundries

Exporters
Seeds
Grains
Spices
Textiles
Chemicals
Pharmaceuticals



### **AUDCO INDIA LIMITED**

(Larsen & Toubro Limited in collaboration with Serck Limited of U.K.).

Registered Office: L&T House, Ballard Estate, Bombay I.
Phone: 268181. Factory: Mount-Poonamallee Road,
Manapakkam, Madras 16. Phone: 802326/7/8.

Manufacturers of: Lubricated taper plug valves in cast iron, cast steel and Audcoloy in collaboration with Serck Audco, U.K.; cast and forged, carbon steel and stainless steel gate and globe valves under licence from Crane Co., U.S.A.; Hypreseal and stainless steel plug valves in collaboration with Serck A.G., Switzerland.

Directors: H. Holck-Larsen, N. M. Desai, John Hover, C. R. Ramakrishnan, F. O. Spitzer, B. H. Toms, G. M. Ranson, Henry Harold.

Selling Agents: Larsen & Toubro Limited, P.O. Box 278, Bombay I. Telephone: 268181. Grams: "LARSENBRO". Telex: TLX 2246. Associated Textile Engineers, Pvt. Ltd., 43, Forbes Street, Fort, Bombay 1.

Atlantis (E.) Ltd., Udyog Bhavan, Wittet Road, Ballard Estate, Bombay 1.

Atlas Copco (India) Pvt. Ltd., Mahatma Gandhi Memorial Building, Netaji Subhas Road, Bombay 2.

Audeo India Ltd., L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Autoelectric & Allied Industries, Plot No. 79(2), Marol, Andheri-Kurla Road, Bombay 59.

Automobile Ancillaries of India Pvt. Ltd., Kandivli Industrial Estate, M. G. Road, Bombay 67.

Automobile & Agriculture Industries Corpn., Ghodbunder Road, Borivli, Bombay 66.

Automat Engg., Pvt. Ltd., 14A, Kurla Industrial Estate, Ghatkopar, Bombay 77.

Automatic Electric Pvt. Ltd., "Rectifier House", Naigaum Cross Road, Bombay 31.

Automobile Products of (I) Ltd., Agra Road, Bhandup, Bombay 78.

Automotive Manufacturers Private Ltd., 108, Bazar Ward, Bombay 70.

Avdel (India) Private Limited, 409, Himalaya House, Palton Road, Bombay-1.

Babcock & Wilcox of India Ltd., 16, Maharshi Karve Road, Bombay 20.

Bachhraj & Co. Pvt. Ltd., 51, Mahatma Gandhi Road, Fort, Bombay 1.

Balkrishna Pen and Plastic Mfg. Co. Pvt. Ltd., Nagardas Road, Bombay 69.

Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay 1.

## BURROUGHS WELLCOME & CO. (INDIA) PRIVATE LTD.

Manufacturing and marketing pharmaceuticals (ethical, home and veterinary), HAZELINE range of cosmetics and fine chemicals.

Registered Office

16, Bank Street, P.O. Box No. 290, Bombay I BR.

Telegram: "TABLOID." Telephone: 255136-7-8.

Pharmaceutical Division

88-C, Old Prabhadevi Road, Bombay 25 DD.

Telephones: 454205, 454270 & 454279.

Mohatta Bhavan, E. Moses Road, Bombay 18. Telephone: 372309.

Chemical Division

Bombay-Agra Road, Bombay 80 NB.

Telephones: 591263-4.

Balsara & Co. Private Ltd., 43, N. Master Road, Bombay 1. Bardai Pvt. Ltd., Zakaria Bunder Road, Bombay 15.

Baroda Rayon Corporation Ltd., 130/132, Apollo Street, Bombay 1.

Batliboi & Co. Pvt. Ltd., Forbes Street, Fort, Bombay 1. Bayer (India) Ltd., Nagin Mahal, Vir Nariman Road, Bombay 20 (BR).

Bearing Engineers Pvt. Ltd., 6F, Court Chambers, 35, New Marine Lines, Bombay 20.

Beclawat of India Ltd., 12-A, A. Besant Road, Bombay 18. Beecham (India) Pvt. Ltd., Beecham House, Pitamberwadi Off Lady Jamshedji Road, Mahim, Bombay 16.

Belapur Co. Ltd., Brady House, Veer Nariman Road, Bombay 1.

Bell & Co. Pvt. Ltd., Bells Building, Sir Pherozeshah Mehta Road, Fort, Bombay 1.

Bellares Private Ltd., 210A, Lamington Road, Bombay 7. Belvandi Pvt. Ltd., Industrial Assurance Building, Opp. Churchgate Station, Bombay 20.

Bharat Bijlee Ltd., Ugdyonagar, Near King Circle Rly. Station, Bombay 22.

Bharat Container Pvt. Ltd., Cecil Court, Landsdowne Road, Apollo Bunder, Bombay 1.

Bharat Radiators Pvt. Ltd., Central Salesette Track, Kalina, Bombay 55.

Bharat Tiles & Marble Pvt. Ltd., 32, Apollo Street, Bombay 1.

Bharat Trading International, Industry House, 159, Churchgate Reclamation, Bombay 20.

Bhavnagar Oil & Chemical Industries Pvt. Ltd., Bombay Mutual Building, D. Naoroji Road, Bombay 1.

### BALMER LAWRIE & CO. LTD.

Machinery and Metal Merchants, Electrical, Civil, Mining, Mechanical and Structural Engineers, Rolling Stock and Crane Manufacturers, Shipping and Passenger Agents.

Head Office:

21, Netaji Subhas Road, Calcutta 1. Grams: "BALMER". Phones: 22-6871 (18 lines).

Branches:

5, Graham Road, Ballard Estate, Bombay 1.

Grams: "BALMER". Phone: 268106 (Seven lines). 56, Jorbagh, Post Box 597, New Delhi 3.

Grams: "BALMER". Phones: 618225.

Grand Trunk Road (West), Asansol. Grams: "BALMER". Phone: 2648.

London Correspondents:

ALEX LAWRIE & CO., LTD.,

Dunster House, 37, Mincing Lane, London, E.C. 3.

Codes used - A.B.C. 6th and Bentley's.

Directors :

K. P. Goenka (Chairman). N. N. Atal (Mg. Director). R. P. Goenka (Mg. Director).

S. B. Budhiraja.

P. K. Rau.

A. P. Verma. A. F. Macdonald.

Bombay Office:

Bombay Manager: A. S. Gilani.

### B. CHOWDHURY & COMPANY

Engineers and Manufacturers' Representatives

\*

#### Manufacturers of:

"MERKU-LITE" Brand high pressure mercury vapour lamps including Blackwood lamps; Complete range of commercial, industrial, decorative and street lighting fixtures and accessories; Ballasts for high pressure mercury vapour lamps; Ballasts for Fluorescent Tubes.

#### Distributors for :

SKF BALL BEARING CO. PRIVATE LTD. for their overseas associates.

KULLAGER-AKTIEBOLAGET SVENSKA Messrs. FABRIKEN, Artillerigatan 17, Gothenburg (Sweden). KUGELLAGERFABRIKEN, G.m.b.H., Ernst-Sachs-Strabe 2-8, Schweinfurt (W. Germany). Messrs. SKEFKO BALL BEARING CO. LTD., Leagrave Road, Luton Beds (England).

#### Address :

Globe Chambers, 7th Floor, Walchand Indian Hirachand Marg (Fort Street), Bombay I. Telephones: 26-3470 & 26-3479. Telegraphic Address: "BISUKHI". Telex No. 011-2806. Answer Back Code "BISUKHI" at all offices.

Branches:

Calcutta: 138, Canning Street, Calcutta.

Phone: 221004

Madras: 11-A/35, Mount Road, Madras 2.

Phone: 85069 Telex: 041-7258.

New Delhi: 3E/4, Jhandewalan, New Delhi.

Phone: 561527 Telex: 031-7479.

Ludhiana: G. T. Road, opp. Jagraon, Ludhiana.

Phone: 3096

#### BENNETT, COLEMAN & CO., LTD.

#### **Publishers and Fine Art Printers**

The Times of India, Bombay, Delhi & Ahmedabad.

The Evening News of India, Bombay.

The Economic Times, Bombay.

Navbharat Times (Hindi), Bombay & Delhi.

Maharashtra Times (Marathi), Bombay.

The Illustrated Weekly of India, Bombay.

Dharmayug (Hindi), Bombay.

Filmfare, Bombay. Femina, Bombay. Indrajal Comics (English, Hindi, Marathi, Gujarati, Tamil

and Bengali), Bombay, Madhuri (Hindi), Bombay.

Parag (Hindi), Bombay. Sarika (Hindi), Bombay. Science Today, Bombay. Dinaman (Hindi), Delhi.

The Times of India Annual, Bombay.

The Times of India Directory and Yearbook, Bombay.

#### HEAD OFFICE

The Times Building, Dr. Dadabhoy Naoroji Road,

Bombay 1.

Phone: 268271 (15 lines). Post Box 213.

Telegraphic Address: "INDIANA." General Manager: Uma Shankar.

Deputy General Manager: Dr. Ram S. Tarneja.

Secretary and Accountant : P. L. Sah.

#### DAILIES The Times of India

Editor: Sham Lal.

Cartoonist: R. K. Laxman.

Asstt. Editors: B. K. R. Kabad, K. C. Khanna, M. V. Mathew, K. R. Sundar Rajan, A. S. Abraham, P. S. Jha, D. D'Monte.

News Editor: P. Venkatram.

Asstt. Editor (Commercial): A. S. Bhaskar.

Asstt. Editor (Sports): K. N. Prabhu. Chief of Bureau : K. R. Kamath.

Chief Reporter: Bhushan Rao.

#### The Evening News of India

Editor: Sham Lal.

#### The Economic Times

Editor: Dr. D. K. Rangnekar.

Asstt. Editors: T. T. Vijayaraghavan, N. Krishnan, A. R. Rao.

News Editor: A. R. Subramaniam.

City Editor: P. N. Krishnaswami.

#### **Navbharat Times**

Editor: Akshava Kumar Jain.

Resident Editor, (Bombay): Mahavir Adhikari. News Editor: B. D. Mishra.

#### Maharashtra Times

Editor: G. S. Talwalkar.

Asstt. Editors: M. P. Shikhare; R. K. Lele. News Editor: D. V. Gokhale.

Chief Reporter: C. P. Tamhane.

#### WEEKLIES

#### The Illustrated Weekly of India

Editor: Kushwant Singh.

Asstt. Editors: Subrata Banerjee, Jal C. Engineer.

#### Dharmayug

Editor: Dr. Dharam Vir Bharati. Asstt. Editor : K. L. Nandan.

#### **FORTNIGHTLIES**

#### Femina

Editor: Dr. K. D. Jhangiani.

Asstt. Editor: Mrs. Vimla Patil.

Editor: B. K. Karanjia.

**Indrajal Comics** 

Filmfare

Editor: Mahavir Adhikari.

Madhuri

Editor: Arvind Kumar.

#### MONTHLIES

Parag

Editor: Anand Prakash Jain.

Editor: Kamaleshwar.

Science Today

Editor: Surendr Jha.

#### ANNUALS

#### The Times of India Annual

Editor: Sham Lal.

#### The Times of India Directory & Yearbook including Who's Who

Editor: Sham Lal.

Asstt.-in-Charge: K. R. Menon.

#### **Advertisement Department**

Advertisement Manager: M. S. Ahluwalia.
Deputy Advt. Manager: V. S. Thirumalai.
Asstt. Advt. Managers: P. V. Nilakantan, Ronny D.

Mistry, Nemchand Jain.

Assistants: M. R. Kothari, N. Venkatraman, A. Ebrahim, G. S. Venkateswaran, N. S. Rajguru and D. P. Elias.

#### Representatives:

R. C. Aggarwal, J. M. Patel, R. M. Patole, M. Savara, B. M. Sharma, H. D'Souza.

Directory Representatives: V. M. D'Souza, B. L. Raizada, V. P. Samant.

#### **Accounts Department**

Senior Accountant: G. S. Subramanian. Accountants: M. B. Deshpande, George Verghese.

#### **Business Department**

Asstt. Business Manager: T. P. Pithavala. Officer on Special Duty: J. E. Mistry. Industrial Engineer: S. H. Kamath.

#### Circulation Department

Circulation Manager: T. S. Subramanian (Admn.). Circulation Manager: V. S. Patil (Development).

Assistants: Prakash Chandra, Y. A. Shetty, V. M. Kodolikar, A. Seshan, P. Ramakrishnan.

#### **Personnel Department**

Personnel Manager: V. G. Karnik. Personnel Officer: K. A. Lalchandani.

Labour & Welfare Officer: A. V. Dagaonkar.

#### Internal Audit Department

Joint Secretary and Chief Internal Auditor: S. S.

Internal Auditor: S. Y. Gupte.

#### **Production and Commercial Printing Department**

Ag. Production Manager: R. N. Shukla. Commercial Manager: Jal S. Cardmaster.

Asstt. Prod. Manager (Job): A. Davidson.

Asstt. Production Manager: R. T. Hingorani.

#### Representatives:

G. R. Sivarama Krishnan, I. Swami, Soosay Swamy.

#### **Art Department**

Art Director: R. Sanzgiri. Cartoonist : Mario Miranda.

#### Composing Department

Superintendent : S. T. Kolte.

#### **Machine Department**

Superintendent : M. P. Kanga.

#### **Binding Department**

Superintendent: K. A. Vaidya.

#### **Process Department**

Superintendent: M. Brown.

#### News Department

Superintendent: K. A. G. Krishnan.

#### Rotary Department

Superintendent: V. K. Bhasin.

#### **Photogravure Department**

Superintendent: R. Dango.

#### **Engineering Department**

Chief Engineer: K. N. Iyer.

#### **Books Division**

Publications Officer: R. N. Shukla.

#### Stores & Despatch Department

Superintendent: T. P. George.

#### **Information Service**

Information Officer: Arun Gandhi.

#### Reference Section

Reference Officer: R. S. Kolhatkar. Asstt. Reference Officer : A. DeSa.

#### DELHI OFFICE

The Times of India, 7, Bahadur Shah Zaffar Marg, New Delhi 1.

Phone: 274161 (10 lines).

Telegraphic Address: "INDIANA", New Delhi.

Manager : J. M. D'Souza.

#### DAILIES

#### The Times of India (Delhi Edition)

Editor: Sham Lal.

Asstt. Editors: Girilal Jain, Ashok Thapar. News Editor: Sri Krishna.

#### Navbharat Times, Delhi

Editor: Akshaya Kumar Jain.

Asstt. Editors: Anand Vidyalankar, Ram Pal Singh.

News Editor: Hari Dutt Sharma.

Chief of News Bureau: Anand Swarup Jain.

#### MONTHLY

#### Dinaman, Delhi

Ag. Editor: Raghuvir Sahai.

#### **Business Department**

Business Manager: Ramesh Chandra.

#### **Advertisement Department**

Advertisement Managers: P. S. Shetty (Admn.), Lakshman Tandon (Devpt.).

Advertisement Representatives: O. P. Bhasin, R. D. Rastogi, S. S. Mehta, M. R. Mani.

#### **Circulation Department**

Asstt. Circulation Manager: Ram Gopal. Circulation Assistants: Baljeet Kapoor; A. C. Samtani.

#### **Establishment Department**

Establishment Officer: K. G. Sikka.

#### **Accounts Department**

Senior Accountant : R. C. Kapoor.

#### Internal Audit Department

Internal Auditor: M. M. Wadhwa.

#### Reference Section

Asstt. Reference Officer: K. L. Sharma.

#### AHMEDABAD OFFICE

The Times of India, 139, Ashram Road, Ahmedabad 9. Phone: 54731 (3 lines)
Telegraphic Address: "INDIANA", Ahmedabad.

#### The Times of India (Ahmedabad Edition)

Editor: Sham Lal.

Resident Editor: Vishnu Dutt.

Chief Reporter: R. V. Raman.

#### **Advertisement Department**

Advertisement Manager: Prabhir Roy. Advertisement Representatives: Anil K. Dosai, A. R.

Mall.

#### **Circulation Department**

Circulation Manager: K. Pattabhiraman. Assistant : D. A. Raach.

#### **Production Department**

Production Manager: V. B. Gharpure.

#### **Establishment Department**

Establishment Officer: R. D. Trivedi.

#### **Accounts Department**

Accountant: M. K. Parikh.

### BRANCH OFFICES

#### London Office

3, Albemarle Street, W. 1.

Phones: Hyde Park 0016 and 0017. Cables: "INDTRADEX", London.

#### Calcutta Office

13/1, 13/2, Govt. Place East.

Phone: 239311 (3 lines). Telegraphic Address: "INDIANA," Calcutta.

Manager : M. Sivaraman.

Chief of Bureau, Economic Times: O. P. Arya.

Advertisement Assistants: H. Taneja; A. Kar; F. O.

D'Cunha.

Circulation Assistant: V. M. Berry.

#### **Madras Office**

39A, Whites Road, Royapettah, Madras 14. Phones: 82352 & 86363.

Telegraphic Address: "INDIANA", Madras.

#### Poona Office

Office-in-Charge: Pitambar Kumar. 407/1, Tirth Bhavan, Quarter Gate, Poona 2. Phone: 25447.

Telegraphic Address: "INDIANA", Poona.

Phone: 255531.

Grams: "SAMACHAR".

The Oldest Newspaper in India

#### THE BOMBAY SAMACHAR

(Established in 1822)

"Red House", Sayed Abdulla Brelvi Road (Horniman Circle), G.P.O. Box No. 676, Bombay 1.

"As in the previous years, The Bombay Samachar Bombay, had among Gujarati Dailies, the highest circulation . . . . "

-Extract from Government Publication
"PRESS IN INDIA, 1969."

### BATLIVALA & KARANI

Share, Stock, Finance and Exchange Brokers.

Union Bank Building, Dalal Street, Fort.

\*

Partners:

P. D. Billimoria,

M. A. Karanija.

S. A. Karanjia,

M. N. Gandhi and

R. D. Settna.

\*

Telephones: 25-8861-2-3.

Grams: "PLACIDITY."



Sole Distributors: B. A. TARKAR
50 Kansara Chawl, Bombay 2.

#### B. M. ABDEALLY & CO.

General Hardware, Tools, Pipes, and Pipe Fittings Merchants, Contractors & Suppliers.

On Govt. & Railways Approved Lists.

#### Dealers in :

Bearing & Shaftings, Belting, Mill Gin Stores, Bolts, Nuts & Screws, Box Strapping & Sealing Machinery, Chains (Short Link), Engineering Stores, Expanded Metal & Wire Netting, Engineers Small Tools, Welding Sets & Wood Working Tools and Foundry & workshop Tools etc.

127, Sarang Street, Bombay 3.

Phone: 326980. Grams: "ALERTDEAL."

Bhojraj Hassomal Pvt. Ltd., 6, Jai Tirth Mansion, Barrack Road, Bombay 20.

Bhor Industries Pvt. Ltd., Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

Biddle Sawyer & Co. (I.) P. Ltd., Dalal Street, Fort, Bombay 1.

Bieri Private Ltd., Near Bus Terminus, Sion, Bombay 22-DD.

Bipinkumar Electric Corporation, 14, Tavawala Bldg., 36, Patakwadi Lohar Chawl, Bombay 2.

Birkmyre Brothers Pvt. Ltd., 12, Rampart Row, Fort, Bombay 1.

Birla Bombay Pvt. Ltd., Industry House, Jamshedji Tata Road, Bombay 20.

Birla Brothers Private Ltd., Industry House, J. Tata Road, Bombay 20.

Bisleri India Ltd., 232, Dr. D. N. Road, Bombay 1.

Blitz Publications P. Ltd., Caswaji Patel Street, Fort, Bombay 1.

Blow Plast Pvt. Ltd., Bombay Agra Road, Bhandup, Bombay 78.

Blue-Seal International Trade, 23/5, Mohatta Market, Palton Road, Bombay 1.

Blue-Star Engineering Co. (Bombay) Pvt. Ltd., Kasturi Building, Jamshedji Tata Road, Bombay 20.

Bohringer-Knoll Limited, United India Bldg., Sir P. M. Road, Bombay-1.

Bombay Alloy Steel Industries P. Ltd., 87, Nagdevi X Lane, Bombay 3.

Bombay Ammonia Pvt. Ltd., 298, Bazargate Street, Bombay 1.

## BRIMCO PLASTIC MACHINERY CORPORATION

Plot No. 55, Govt. Industrial Estate, Kandivli (West), Bombay 67.

Phone: 692818. Grams: "BRIMSEAL".

Bombay, Kandivli.

Machinery and Equipments for Processing Plastics, Brimo Thermoplastic Extruders and Equipments for Extrusion of Tubular Film (Layflat Tubes). Rods, Strips, Sections, Plastic Cane, Monofilament and Covering Wires and Cables, etc. from Polyethylene, Polystyrene, PVC, Celulose Acetate, high Density Polyethylene, Polypropylene etc. Also Injection Moulding Machines, Granulators, Palletizing, Colouring, Reprocessing Equipments, and Automatic Bag Making Machines, Blow Moulding Machines, Lamination Plant and Plant for manufacturing Oriented Plastic Lace. Sole Selling Agents for whole of India: William Jacks & Company (India) Pvt. Ltd.

**Engineering Stores** 

#### **BHARAT ENGINEERING STORES**

Importers & Stockists of:

Engineering Stores, Precision and Small Tools, Machine Tools, Hardware & Mill Gin Stores.

Authorised Stockists of:

"SAP" Hacksaws, Drills, Slitting Saws & Cutting

"ADDISON" Drills, Reamers & Cutting Tools.

"ELEPHANT" Brand Chain Pulley Blocks & Travelling Trolleys.

"S.T.M." Brand Taps, Tool Bits and Conventing Dies & Small Tools.

"REGAL" Handsaws & Bandsaws, Hacksaw Blades.

"S.R.P." Brand Cutting Tools and Conventing Die, etc..

Address :

113, Nagdevi Street, Bombay 3.

Grams: "UNIONTOOLS". Phone: 327428

## BOMBAY SUBURBAN ELECTRIC SUPPLY LIMITED



Registered Office :

Killick House, Home Street, Fort, Bombay 1.

Phone: 262311. Grams: "KINDRED".



Administrative Office:

Central Administration Department, No. 5, Graham Road (4th Floor), Ballard Estate, Bombay I.

Telephone Nos. 261741/261742 & 261743.

Grams:

Local Office :

Electricity House, Santa Cruz (East), Bombay 55.

### BIRKMYRE BROS. PVT. LTD.

(Established 1882).



Pioneers and Foremost Manufacturers of:

"Hastings" Brand Hair and Cotton Belting, Tarpaulins, V-Belts and Conveyor Belting.



12, Rampart Row, Fort, Bombay,

Phone: 255183.

Race Course Road, Coimbatore.

Head Office: 87, Stephen House, Calcutta.
Phone No.: 23-6812.

Factory at: Konnagar, West Bengal.
Gram: "BIRKMYRES"

Agents all over India.

Bombay Building Materials Trading Co., 73, Medows Street, Bombay 1.

Bombay Burmah Trading Corporation Ltd., 9, Wallace Street, Fort, Bombay 1.

Bombay Cycle & Motor Agency Ltd., 534, Sardar Vallabhbhai Patel Road, Bombay 7.

Bombay Forgings P. Ltd., C. S. T. Road, Kalina, Bombay 29.

Bombay Furnaces P. Ltd., Stadium House, Veer Nariman Road, Bombay 20.

Bombay Garage Private Ltd., Meher Buildings, Chowpatty, Bombay 7.

Bombay Gas Co., Ltd., Empire House, 214, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Bombay Insulated Cables & Wires Co., 10, Himalaya House, Palton Road, Bombay 1.

Bombay Miscellanies Pvt. Ltd., Khan Manzil, 28, Calicut Street, Fort, Bombay 1.

Bombay Pencils Pvt. Ltd., Kamar Building, Cawasji Patel Street, Fort, Bombay 1.

Bombay Potteries & Tiles Ltd., Pipe Road, Kurla, Bombay 70.

Bombay Safe Manufacturing Co., 307, Kalbadevi Road, Bombay 2.

Bombay Scientific Glass Industries Private Ltd., 29, Veer Nariman Road, Fort, Bombay 1.

Boots Pure Drug Co. (India) Ltd., 17, Nicol Road, Ballard Estate, Bombay 1 BR.

Boxwell India Pvt. Ltd., Box House, 54-A, Andheri Kurla Road, Andheri (East), Bombay 69.

Bradma of India Ltd., Lakshmi Building, Sir P. M. Road, Bombay 1.

## THE BRALCO METAL INDUSTRIES PRIVATE LIMITED

SUCCESSORS TO

#### DEVIDAYAL METAL INDUSTRIES

Registered Office: Gupta Mills Estate, Reay Road, Darukhana, Post Box 6215, Bombay 10-DD.

Telephones: 378561, 378562, 378563.
Telegrams: "GINGER"
Telex: 2684
Product Brand "DMI"

8

#### Manufacturers of:

Sheets, Sheathings, Strips, Coils, Circles etc. of Aluminium, Brass and Copper.



Suppliers of Non-ferrous Semi-finished Raw Materials to the following industries :

Automobile, Telephone, Pressure Stove, Bicycle, Refrigeration, Air-conditioning, Umbrella Ribs, Photoengraving and Printing, Musical Instruments, Clock Lock, Gaskets, Pen Nibs, Collapsible Tubes, Ordnance Factories, Aluminium Kettle and Utensil Manufacturers.



Importers of :

Aluminium, Copper, Zinc, Box Strapping, Machinery for Rolling Mills.



#### Exporters of:

Sheets, Sheathings, Strips, Circles, etc. of Aluminium, Brass and Copper and of Aluminium Utensils.



Associated Companies : Hindustan Chains Pvt. Ltd.

Manufacturers of :

Adjustables Snap Gauges, Plug Gauges, Dowel Pins & Universal Vices and Aluminium Utensils.

United Engineering Industries.

Manufacturers of:

Bicycle Free Wheels.
Copper Rollers Private Limited.

Manufacturers of:
Textile Printing Rollers.
Dhiraj Metal Works.

Manufacturers of : Aluminium Utensils.

### which do you need?

batlibol & co. pvt. Itd.
offer you a variety of over 500 dependable quality products made
by more than 125 reputed manufacturers. Available at reasonable prices, each of these can
help increase your productivity
appreciably. This tremendously
wide range includes: (i) a series
of well-known machine tools
(Indian, imported and the popular precision machines made by
the company's manufacturing
complex at Udhna near Surat in
Gujarat.) (ii) rugged workshop
machinery and (iii) various special application machinery for
modern industry and agriculture
Machine Tools & Accessories batliboi & co. pvt. ltd.

Machine Tools & Accessories athes Milling Radial drilling machines Die making machinen Special purpose machine tools

Drilling machines Precision Grinding machines Gear makine machinery Chucks and other accessories

Sheet metal

machinery

Hand tools

Workshop Machinery & Equipment

Metal working machinery Portable electric tools Small tools General machinery Special steels lectrical motors Electrical

Precision tools Hardware and stores Material handling equipment Starters Generators switchgear Generators Welding machinery & equipment

Specialised Machinery & Equipment

Chemical machinery Heavy engineering machinery Textile machinery Process control nstruments Rig boring machines

wood working Paper making machinery Porging & Foundry Construction equipment Chemical machinery Pharmaceutical machinery Power plant & equipment Humidification & air-conditioning

equipment Pumps Diesel engines Storage water heaters and heating

elements Miscellaneous specialised machinery and equipment

For your specific need in machinery quote batlibol & co. pvt. ltd.

batliboi

Industrial products



& co. pvt. it

Brady & Morries Engineering Co. Ltd., Brady House, 12/14, Vir Nariman Road, Bombay 1.

Brimco Plastic Machinery Corporation, Plot No. 55, Govt. Industrial Estate, Kandivli (West), Bombay 67.

Britannia Biscuit Co. Ltd., 20th Floor, Nirmal, Nariman Point, Bombay 20.

British India Steam Navigation Co. Ltd., 4, Shoorji Vallabhdas Marg, Bombay 1.

British Insulated Callenders' Cables Ltd., Esplanade House, Waudby Road, Fort, Bombay-1.

Brooke Bond India Private Ltd., Gresham Assurance House, Sir Phirozeshah Mehta Road, Bombay 1.

Buckau Wolf New India Engineering Works Ltd., 72, Medows Street, Bombay 1.

Bullows India Pvt. Ltd., 60, Sir Phirozeshah Mehta Road, Bombay 1.

Burmah-Shell Oil Storage & Dist. Co. of India Ltd., Burmah-Shell House, Ballard Estate, Bombay 1.

Burmah-Shell Refineries Ltd., Burmah-Shell Refineries Site, Mahul, Bombay 74.

Burn & Co. Ltd., Esplanade House, Waudby Road, Bombay 1 BR.

C. Itoh & Co., Ltd., United Bank of India Bldg., 5th Floor, Sir Phirozshah Mehta Road, Bombay 1.

Cadbury-Fry (India) Private Ltd., 19, Bhulabhai Desai Road, Bombay 26.

Caltex (India) Ltd., Caltex House, 8, Ballard Road, Ballard Estate, Bombay 1 BR.

Camphor & Allied Products Ltd., Jehangir Building, Mahatma Gandhi Road, Bombay 1.

Candy Filters (India), Pvt. Ltd., Forbes Building, Home Street, Fort, Bombay 1.



### CHRISTENSEN LONGYEAR (INDIA) LIMITED

(Subsidiary of Larsen & Toubro Limited and in collaboration with Christensen Diamond Products Company and E. J. Longyear Company both of U.S.A.).

Registered Office: L&T House, Ballard Estate, Bombay I. Phone: 268181. Grams: "CHRISLONG".

Factory: 113, Koliwada Road, Sion East, Bombay 22. Phone: 472575.

Manufactures CLIL Longyear diamond core drills and accessories, WABCO water well drills, CHRISTENSEN diamond bits and industrial diamond bits.

#### Directors:

H. Holck-Larsen, N. M. Desai, E. Gunnar Hansen, W. Barreto, B. I. Bhambhani, V. N. Burnhart, F. L. Christensen, R. H. Lawe, E. Larson.

#### Selling Agents:

Larsen & Toubro Limited, P. O. Box 278, Bombay I. Grams: "LARSENBRO." Telephone: 268181. Telex: TLX 2246.

# THE COMMERCIAL CREDIT CORPORATION (1943) PRIVATE LTD.

Head Office: Hughes Road, Bombay 7.

Branches:

Hughes Road, Bombay 7.
Finance House, Puttalos Road, Mount Road, Madras 2.
St. Mark's Road, Bangalore.
New Buti Building, Mount Road, Nagpur.
Statue Junction, Trivandrum.

Managing Director: S. Rama lyer.

Directors:

V. R. Murdeshwar, U. Prabhakar Rao, R. Doraiswamy and M. S. Dastur.

Provides Hire Purchase Facilities for Motor Vehicles, Misc. Machinery, Radios, etc.

Phone: 358436.

Grams: "CECECE".

### CANDY FILTERS (INDIA) LTD.

Hydraulic Engineers and Water Purification Specialists

Mahalaxmi Chambers, 7th Floor, 22, Bhulabhai Desai Road, Bombay 26.

\*

Gravity and Pressure Filter Installations,
Swimming Pool Water Purification Plants,
Chlorinators, Ammoniators, Water Softeners,
Demineralisation Plants, Chemical Dosing
Apparatus, Metering Pumps, Water Testing
Equipment.

\*

Telephone No. 368475, Bombay.

Telegrams: "PONTIFEX", Bombay

#### CAMLIN PRIVATE LIMITED

(Stationery Division)

Office :

J. B. Nagar, Kurla-Andheri Road, Bombay-59 AS.

Phones: Office: 574481/82.

Grams: "CAMELINK", Bombay-Andheri.

Local Sales Office & Show Room: 210, Lady Jamshedji Road, Mahim, Bombay-16 DD. Phone: 453458.

Branches:

12/B, Lower Chitpore Road (Rabindra Sarani), FS-28, Calcutta-1.

> 108-B, Puraswalkam High Road, Madras-7.

> 2/27, Daryaganj, Ansari Road, Delhi-6.

### CAPRIHANS (INDIA) PVT. LIMITED

Manufacturers of: SUNGLOSS Decorative Surfacing, SUNLAM Industrial Laminates, SUNVIC Rigid PVC Sheets, SUNFLEX PVC Sheeting, SUNTEX Leather Cloth, SUNSTRENE High Impact Polystyrene Sheets.

Block 'D', Shiv Sagar Estate, Dr. Annie Besant Road, Worli, Bombay-18 (WB).

Telephones: 372285-86-87 & 378548-49.

Grams: "CAPRIHANS".

Branches: New Delhi, Calcutta and Madras.

Capco Pvt. Ltd., Co-operative Insce. Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Caprihans (India) Pvt. Ltd., Block 'D', Shiv Sagar Estate, Dr. Annie Besant Road, Worli, Bombay 18 (WB).

Carborundum Universal Ltd., United India Bldg., Sir P. M. Road, Bombay 1.

Cargo Inspectors & Superintendence Co. Pvt. Ltd., Cook's Bldg., 324, Dr. D. N. Road, Bombay 1.

Carona Sahu Co. Ltd., 221, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Castrol Ltd., White House, 91, Walkeshwar Road, Bombay 6.

Catalyst (India) Ltd., 79, Masjid Bunder Road, Bombay 3.

Ceat Tyres of India Ltd., Bhandup, Bombay 78.

Cement Marketing Co. of India Ltd., Cement House, 121, Maharshi Karve Road, Bombay 20.

Cementation Co. Ltd., Steelcrete House, Dinshaw Vaccha Road, Bombay 20.

Central Camera Co., Pvt. Ltd., 195, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Chase Bright Steel Ltd., Meher Chambers, Nicol Road, Ballard Estate, Bombay 1.

Chavannes & Co. Pvt. Ltd., Mercantile Chambers, Graham Road, Ballard Estate, Bombay 1.

Chemical Moulding Manufacturing Co. Pvt. Ltd., Shapoor Baug, Marol, Bombay 59.

Chemicals & Fibres of India Ltd., Crescent House, Ballard Estate, Bombay 1.

Chemicolour Private Limited, Tiecicon House, Haines Road, Bombay 11.

Chesebrough-Ponds Inc., 13, Gunbow Street, Bombay 1.

### CATALYST (INDIA) LTD.

Manufacturers of: Vanadium Pentoxide Catalyst for Sulphuric Acid Plants under licence from MONSANTO COMPANY, U.S.A.

Regd. Office: 79, Masjid Bunder Road, Bombay 3.
Phones: 324246, 323426. Grams: "CANON",
Bombay.

Factory: Kolshet Road, Thana.

Phone: 591912.

Directors: R. J. Chinai (Chairman)

B. M. Chinai (Mg. Director)

K. J. Chinai

D. C. Chinai

Dr. S. P. Adarkar

Millian Haymovici

Emile de Jekelfallussy

#### CHASE BRIGHT STEEL LTD.

Meher Chambers, Nicol Road, Ballard Estate, Bombay 1.

Phone: 264470.

Telex: 011-2682.

Grams: "CHASESTEEL" THANA.

Leading Manufacturers & Exporters of :

BRIGHT STEEL BARS & SHAFTINGS OF VARIOUS SIZES AND SPECIFICATIONS.

Board of Directors :

R. R. Ruia (Chairman).

S. L. Jajodia.

G. J. Ruparel.

K. P. Khaitan.

S. K. Jajodia.

A. K. Jajodia (Mg. Director).

Registered Office & Works:
Majiwada, Bombay-Agra Road, Thana.

### CALTEX (INDIA) LIMITED

Distributors and Marketers of Caltex Petroleum Products—Petrol, Kerosene, Jet Fuel, Diesel Oils, Furnace Oil, Caltex Five Star Motor Oils, the full range of Lubricating Oils and Greases, Asphalts and Road Surfacing Materials, Naphtha, L.P.G., etc.

Offices/Depots in major cities and towns.

General Office :

Caltex House, 8, Ballard Road, Ballard Estate, Bombay I BR.

Phone: 26-8031 (10 lines). Grams: "CALTEX".

Vice-President : V. P. Ryan.

General Manager: B. A. M. Daborn.

Marketing Division: Dy. General Manager, Marketing: R. Sahay.

### THE CEMENT MARKETING CO. OF INDIA LTD.

Regd. Office: Cement House, 121, Maharshi Karve Road, P.O. Box 11025, Bombay 20.

Phone: 293801.

Grams: "CEMENT".

Branches:

Ahmedabad, Bangalore, Calcutta, Coimbatore, New Delhi, Indore, Kanpur, Madras, Patna and Secunderabad.

> Board of Directors : P. K. Mistry, Esq. B. N. Reporter, Esq. Col. K. R. Coorlawala. Ranvir M. Khatau, Esq.

General Manager:

S. N. Sopory, Esq.

Dy. General Managers: R. N. Haksar, Esq.

J. G. Pradhan, Esq. Financial Division (C.M.I.)

Chief Accountant:

B. R. Kulkarny, Esq.

Publicity & Public Relations Division: P.O. Box 11024. Telegrams: "CEMPUB". Manager, Publicity and Public Relations: Lt. Col. C. L. Proudfoot (Retd.).

Also see the Concrete Association of India.

### CHUNILAL MULCHAND & COMPANY

Indian Mercantile Mansion. Madame Cama Road, Museum, Bombay.

Phone: No. 211515. Grams: "Muircom."

Sole Prop.: R. C. Kapadia

Manager: J. C. D'Souza

Accountant: S. C. Shah

The House of Exquisite **Textiles** 

### CONSOLIDATED PNEUMATIC TOOL CO., LTD.

(Incorporated in England). 301/302, Agra Road, Mulund, Bombay 80.

Phone: 592274/6.

Grams: "CAULKING", Mulund-Bombay.

Manufacturers of: Air Compressors, Pneumatic Rivetting and Chipping Hammers, Drilling Machines, Grinders, Rock Drills, Mining Equipment, Portable Electric Tools, Hicycle Electric Tools, etc. London Office: CP House, 97-107, Uxbridge Road, London W 5. Branches at: Calcutta, Madras and New Delhi. Branch Office: Calcutta: 30, Jawaharlal Nehru Road, Calcutta 16; Madras: Finance House, Pattulos Road, Post Bag 5251, Madras 2; New Delhi: 25, Ring Road, Lajpat Nagar IV, New Delhi-14.

### CALTEX OIL REFINING (INDIA) LTD.

Registered Office: Caltex House, 8, Ballard Road, Bombay-I (BR).

Refinery Address: Caltex Oil Refining (India) Ltd., Post Box No. 15, Visakhapatnam-1, Andhra Pradesh.

Managing Director: V. P. Ryan, Bombay.

Director & Refinery Manager: S. A. Watson, Visakhapatnam.

Directors :

H. E. Lewis, Chairman.

H. D. Dennis, President.

V. P. Ryan, Managing Director.

B. A. M. Daborn.

S. A. Watson.

E. N. Harland.

C. J. Mathew (Alternate for H. D. Dennis).

Secretary: K. C. Joseph.

Bombay

Visakhapatnam

Grams: "CORIL."

Grams: "CORIL."

Phone: 26-8031.

Phone: Caltex 3031.

Chic Cosmetics (Pvt.) Ltd., 91 A, Walkeshwar Road, Bombay 6.

Chika Ltd., Mehta Chambers, 13, Mathew Road, Bombay 4. Choksi Brothers Private Ltd., Western India House, Sir P. Mehta Road, Fort, Bombay 1.

Chotirmall & Co., K.A.J., 501, Kalbadevi Road, Bombay-2. Chowgule & Co., (Hind) Pvt. Ltd., India House, Fort Street, Bombay 1.

Christensen-Longvear (India) Ltd., L & T House, Dougall Road, Ballard Estate, Bombay 1.

Chudgor & Co. (Pvt.) Ltd., Anand Bhuvan, Princess Street, Bombay 2 BR.

Ciba of India Ltd., 14, Jamshedji Tata Road, Bombay 20. Ciem Trading Co., Pvt. Ltd., Ciem Estate, Ramchandra Lane Extn., Malad, Bombay 64 NB.

Cinerama Pvt. Ltd., Metro House, Mahatma Gandhi Road, Bombay 1.

Claridge G. & Co. Ltd., "Caxton House", Frere Road, Bombay 1.

Colgate-Palmolive (India) Pvt. Ltd., Steelcrete House, Dinshaw Vachha Road, Bombay 20.

Commercial Commodities (India) Pvt. Ltd., 211-213, Kalbadevi Road, Bombay 2.

Concord Corporation Private Ltd., Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

Concrete Association of India, "Cement House", 121, Maharshi Karve Road, Bombay 20.

Consolidated Engineering Equipment Co., Union Coop. Insurance Society Building, Sir Phirozshah Mehta Road, Bombay 1.

Consolidated Mill Supplies Pvt., Ltd.—Co-operative Insurance Bldg., Sir P. M. Road, Fort, Bombay 1.



### J. & P. COATS (INDIA) PVT. LTD.

Head Office: Koratti, Kerala. Manufacturers of all varieties of cotton and synthetic threads and Knitting Cotton and Selling Agents for Knitting Wools and Knitting Pins.

: 81, Palton Road, P.O. Box No. 280. Phone : 265591-2-3. Bombay

: Garstin Bastion Road, P.O. Box No. 1091. Delhi

Phones: 263871 & 263872.

: 16/71 A-5, Civil Lines, P.O. Box No. 112. Kanpur Phone: 60968.

: 27, Free School Street, P.O. Box No. 2725. Calcutta Phone: 24-5007 & 24-4572.

: Mahatma Gandhi Road, P.O. Box No. 40.

Phone: 4683. 'ANCHOR HOUSE', 191, Anna Pillai Madras

Street, P.O. Box No. 273. Phone: 23158.

Hyderabad: 1-5-4, Bakaram, Hyderabad-20.

Gauhati

Phone: 73593.

Bangalore : No. 66, Gayatri Devi Park Extension, Vyalikaval Main Road, Bashyam Circle, P. O. Box No. 158, G.P.O. Phone: 71634.

: Sales Dept., Koratti, Kerala. Koratti Phone: Chalakudi 62 & 64.

Telegraphic Address for all branches: SIXCORD. Registered Office: 81, Palton Road, Bombay-1.

#### CAPCO PRIVATE LTD.

Importers of and Dealers in Dyestuffs, Chemicals, Pharmaceuticals and Manufacturers of Vat Pastes and Textile Auxiliaries.

Regd. Office : 14, Netaji Subhas Road, P.O. Box No. 2301, Calcutta 1. Grams: "CAPCODYES". Phone No. 224653/4. Admn. Office:

Co-operative Insurance Bldg., Sir Phirozshah Mehta Road, Bombay I. Phone No. 255641/42, 250235. Managing Director:

K. C. Nigam - Phone No. 531443 (Residence).

Bombay Office:
Co-operative Insurance Bldg., Dyes Department: Sir Phirozshah Mehta Road, Bombay I. Phone No. 255641/42, 250235. Telex: 3064.

Chemicals Department: 15, Cawasji Patel Bombay I. Phone No. 250292 & 250295. Street,

Factory: 315, New Prabhadevi Road, Bombay 25. Phone No. 453632.

Branches: Ahmedabad, Kanpur, Delhi, Madras, Madurai, Salem, Secunderabad, Vijayawada, Cochin. Sole Distributors of

MEHTA DYE-CHEM INDUSTRIES, Bombay. CARD-CHEM INDUSTRIES, Hyderabad. UNIVERSAL MINERALS & CHEMICAL CO., Bombay.

Distributors of :
WINSOL CHEMICAL INDUSTRIES GUIARAT CHEMICAL INDUSTRIES Bombay, for their products in Eastern and Southern Zone except Andhra Pradesh.

#### CHOWGULE & CO. (HIND), PRIVATE LTD.

India House, 5th Floor,
Walchand Hirachand Marg, P.O. Box 1478, Bombay I.
Phone: 265301 (4 lines). Grams: "CHOWGULECO."
Telex No. 2342.

Directors : Prataprao D. Chowgule, Shivajirao D. Chowgule. Manufacturers of:

Synthetic Resins.

Sera and Vaccines in collaboration with (ii) Institute of Immunology, Zagreb, Yugoslavia.

(iii) Pharmaceutical Specialities.

(iv) Glycerophosphoric Acid and its salts. Factories at : Bombay-Agra Road, Majiwade, Thana. Exporters of

Synthetic Resins, Machine Tools, Sera & Vaccines.

Sole Importers and Agents for: Institute of Immunology, Zagreb — Sera and Vaccines; Pliva Pharmaceutical and Chemical Works, Zagreb — Pharmaceuticals and Chemicals; Fuji Photo Film Co. Ltd., Tokyo - Roll Films and other Sensitised Photographic materials. Manufacturers of Production Machinery and Machine Tools in West Germany, U.K. and U.S.A., Janata Machine Tools Ltd., Bombay —
Woodworking Machines, Double Housing Planers,
Single Spindle Automatic Lathes.

Branches: 17, Parliament Street, Allahabad Bank Building, P.O. Box 486, New Delhi I. Phone: 42325-6, Telex No. 360; 7, Chittaranjan Avenue, Laha Paint House, P.O. Box 8943, Calcutta 13. Phone: 233645, Telex No. 337; 8, Il Line Beach, Regina Mansion, P.O. Box No. 3738, Madras I. Phone No. 26080, Telex No. 304.

### CENTRAL CAMERA CO., PVT. LTD.

Dealers and Wholesalers in Photographic & Cinematographic goods, Photographers, Developing, Printing & Enlarging Service. Pioneers in colour photography.

195, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Phone: 264426. Grams: "CAMERACO"

Branches: Madras, Calcutta, New Delhi.

#### CASTROL LIMITED

White House, 91, Walkeshwar Road, Bombay-6. Manufacturers of the famous "CASTROL" Motor Oils, Industrial Lubricants, Brake Fluids & Greases, Mechanical and Hydrostatic Lubricators, Mechanical and Garage Equipment. (Lubrequipment).

General Manager's Office: General Manager for India: R. J. Habbick. Deputy General Manager for India: G. W. Denby. Controller of Operations: D. G. Baljekar. Accounts Controller: L. T. Jadvani. Industrial Sales Co-ordinator: P. D. Mahajan. Chief Technologist: S. R. Bhatnagar. Chief Engineer : D. A. Bamji.

#### BOMBAY BRANCH

Manager for Bombay: V. Y. Gupte; Assistants: R. A. Savoor, P. J. Rao.

Sales Representatives: B. Price, M. D. Shetye, H. G. Suri, R. G. Gupte, B. C. Sachdeva, B. N. Kataria, B. Gurudas, R. Sunderam, U. Kadam, S. R. Shilotri, B. N. Aldangadi, J. Kurian and Suresh Chandra.

Branches & Depots: Calcutta, Madras, Cochin, New Delhi, Secunderabad, Bangalore, Mangalore, Mysore, Nagpur, Ahmedabad, Lucknow, Tezpur, Ranchi, Asansol, Jamshedpur, Vijayawada, Coimbatore.

Calcutta: Castrol Limited, 14, India Exchange Place, Calcutta I. Manager: M. Y. Gaitonde.

Madras: Castrol Limited, 58159, North Beach Road, Madras I. Manager: P. K. Das.

#### CRUICKSHANK & CO., LTD.

Steamship Agents,

Chartering and Shipsale Brokers,

3, Walchand Hirachand Marg, Ballard Estate, Bombay I.

Head Office: Calcutta.

Branches: Madras, New Delhi.

Sub Agents & Associates at all Indian Ports.

Steamship Agency Dept. "COSHANK." Shipsale/purchase and Chartering Dept. "CRUICCHART." Cables:

Phones: 264051 & 267721.

#### COLOUR-CHEM LIMITED

Ravindra Annexe, 194, Backbay Reclamation, Dinshaw Vachha Road, Bombay 20. Telegraphic Address: "PIGMENTDYE."

Telephone Nos. 291735 & 291743

Directors:

Mr. R. R. Ruia, Chairman.

Mr. D. M. Khatau.

Mr. B. M. Ghia.

Mr. S. P. Godrej.

Mr. H. Elsner.

Mr. H. U. Fintelmann.

Mr. B. R. Tannan.

Dr. G. Mueller.

Dr. Sattler-Dornbacher.

Mr. G. C. Chaudhary. Dr. E. U. Koecher.

Mr. H. G. Wolff.

Alternate Director for Mr. H. Elsner.

Mr. F. S. Reporter.

Alternate Director for Mr. H. U. Fintelmann.

Mr. K. F. Kleinhorst - Alternate Director for

Dr. G. Mueller.

Mr. A. B. Parakh, Managing Director.

Manufacturers of:

Pigment Emulsions; Organic Pigment Powders, Synthetic Resin Binder Materials, Phthalocyanine Blue, Phthalocyanine green and Dyes Intermediates. In Collaboration with Farbenfabriken Bayer A. G. Leverkusen, West Germany and Farbwerke Hoechst A. G., Frankfurt (Main) Hoechst, West Germany.



## "COLD-WAVE" Home Permanent

#### TYPES :

- (a) REGULAR for all types of Hair
- (b) MILD for dyed, bleached and brittle Hair
- (c) PROFESSIONAL for professional use
- (d) SUPER (Lanolised)
- (e) END-CURL (Lanolised)



STRIP-CLEAN Hair-Remover (Cold-Wax)
CHIC-SHINE Hair-Dressing Cream
HAIR-CONDITIONING CREAM

(a) For very Dry Hair and (b) For Medium Dry Hair



LIQUID BRILLIANTINE
HAIR-SPRAY (Lanolised)
EAU-DE-QUININE
AFTER-SHAVE LOTION
WAVE-SETTING LOTION
PLASTIC CURLERS
PIN CURL CLIPS



### CHIC COSMETICS (Private) LTD.

91A, Walkeshwar Road, Bombay 6. Phone: 356161

2-2-154, M. G. Road, Secunderabad (A.P.).
Grams: "TEKNIPLANT"

Selling Agents :

M. G. SHAHANI & CO. (Private) LTD.

Bombay - Calcutta - Delhi - Kanpur & Madras

### CIBA

### CIBA OF INDIA LIMITED

Registered Office:

14, Jamshedji Tata Road, Bombay 20.

Phone: 295031 (9 lines). Grams: "CIBA", Bombay.

Bankers: The National & Grindlays Bank Limited, Bombay.

Particulars of Business

Manufacturers of Pharmaceuticals, Cosmetics and Toiletries, Dyestuffs and Textile Auxiliaries, Pesticides and Distributors of Synthetic Resins.

Cosmetics and Plastics Divisions

Esplanade House, 29, Waudby Road, Bombay 1.
Phone: 267971 (4 Lines).

Pesticides Division and Purchase Department:

Khetan Bhavan, Jamshedji Tata Road, Bombay 20.

Phone: 295526 (3 lines).

Factories:

Pharmaceuticals: Bombay-Agra Road, Bhandup, Bombay 78. Phone: 581681 (4 lines).

Dyes Mixing Plant: Off Dockyard Road Station, Bombay 10. Phone: 379520.

Pesticides: 21, Falkland Bridge, Tardeo, Bombay 7.

Phone: 370458.

Research

CIBA Research Centre, Goregaon, Bombay 72.

Phone: 693221 (4 lines).

CIBA Agro-Chemical Research Centre, Kayarambedu, Via Guduvancheri, Chingleput District, Tamilnadu.

# Crompton Greaves

(In Association with Crompton Parkinson Ltd., England)

### Electrical Engineers, Manufacturers & Contractors

### ESTABLISHMENTS

Registered Office: Kanjur, Bhandup, Bombay 78
Central Administration: Kanjur, Bhandup, Bombay 78

#### WORKS:

Kanjur, Bhandup, Bombay 78; Dr. E. Moses Road, Worli, Bombay 18; Dr. Annie Besant Road, Worli, Bombay 18

#### SALES

#### Central Co-ordination

1, Forbes Street, Bombay 1

#### Western Region:

Bombay: 1, Forbes Street, Bombay 1; Ahmedabad: Hotel Roopalee Building, Lal Darwaja, Ahmedabad 1; Indore: Padma Kunj, 32, Dr. Bhandari Marg, Indore; Nagpur: 219, Mount Road Extension, Nagpur; Poona: 10, Natco House, 44, Sassoon Road, Poona 1

#### Southern Region:

Madras: Bombay Mutual Building, N. S. C. Bose Road, Madras 1; Bangalore: 16, JCW Road, 1st Floor, Bangalore 2; Secunderabad: 2538, Rashtrapathi Road, Secunderabad 3

#### Eastern Region:

Calcutta: 21, Rajendra Nath Mukherjee Road, Calcutta 1; Asansol: Apcar Gardens, Asansol; Cuttack: Saradiya Bldg., Mission Road, Cuttack 1; Gauhati: G. S. Road, Ulubari, Gauhati 7 (Assam); Patna: Gupta Niwas, 2nd Floor, New Dak Bungalow, Road, Patna 1

### Northern Region:

New Delhi: 'Thapar House', 124, Janpath, New Delhi 1; Jaipur: Asoka Hotel Building, Station Road, Jaipur; Jullundur City: Virdi Building, G. T. Road, Jullundur City 1; Lucknow: Sarojini Naidu Marg, Lucknow

#### District Engineers at:

Aligarh, Baroda, Belgaum, Coimbatore, Dibrugarh, Durgapur, Ernakulam, Goa, Jabalpur, Jamshedpur, Kanpur, Karnal, Madurai, Meerut, Muzaffarpur, Nasik, Rajkot, Rourkela, Siliguri, Varanasi, Vijayawada, Visakhapatnam

#### **Export Division:**

Kanjur, Bhandup, Bombay 78 NB.
Telex 011-2397. Telephone: 582451 (7 lines)
Cables: "CROMSTATIC" Bombay, Bhandup

#### United Kingdom:

Manchester: Brazennose House, Brazennose Street, Manchester, M60 2JA

#### PRODUCTS AND SERVICES:

#### Sales Division-Products:

Electric motors - three phase & single phase

Alternators

Power and distribution transformers

Switchgear and Motorcontrolgear

On-load tap changers

Ceiling, pedestal, table and exhaust fans

Electrical instruments and instrument transformers

Carbon brushes

Metal clad interlocked plugs, sockets and conduit boxes, interlocked switch-socket units

Motor pumping sets and float switches

Static capacitors

Switches, switchfuses and distribution boards

Lamps, tubes and lighting fixtures

Industrial V-belts

Automobile fan belts and batteries

Slydlok Fuses

#### Contracts Division-Services:

Design, Installation & Commissioning of Electrical and Allied Projects.

Consolidated Pneumatic Tool Co. Ltd., 301/302, Agra Road, Mulund, Bombay 80.

Consolidated Trading Corpn., Advani Chambers, Sir P. M. Road, Fort, Bombay 1.

Consultech Pvt. Ltd., 32, Nicol Road, Ballard Estate, Bombay 1.

Continental Trading Syndicate, 28, Apollo Street, Fort, Bombay 1.

Cooper Engineering Ltd., Construction House, Ballard Estate, Bombay 1.

Corn Products Co. (India) Pvt. Ltd., Shree Niwas House, Waudby Road, Fort, Bombay 1.

Cox & Kings (Agents), Ltd., Lloyds Bank Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

Crescent Iron & Steel Corporation Ltd., Industrial Estate, Lalbaug, Bombay.

Cruickshank & Co., Ltd., 3, Walchand Hirachand Marg, Ballard Estate, Bombay 1.

C. Z. Instruments India Pvt. Ltd., Court Chambers, 35-A, New Marine Lines, Bombay 20.

D. C. Batliwala & Co., 12, Bruce Street, Fort, Bombay 1.

D. B. Taraporewala Sons & Co. Pvt. Ltd., 210, D. N. Road, Fort, Bombay 1.

D. D. Shah & Co., Damodar Bldg., 105, Princess Street, Bombay 2.

D. Dahayabhai & Co., 79, Princess Street, Bombay 2.

D. Jamnadas & Co., 207, Samuel Street, Bombay 3.

D & P Products (Pvt.) Ltd., Aban House, Ropewalk Lane, Bombay 1.

#### DUNLOP INDIA LTD.

Registered Office:

"Dunlop House," 57B, Mirza Ghalib Street, P.O. Box No. 391, Calcutta.

Factories:

Sahaganj, West Bengal, Ambattur, Madras.

#### Branches:

Ahmedabad, Bangalore, Bombay, Calcutta, Calicut, Cuttack, Cochin, Delhi, Ernakulam, Gauhati, Hyderabad, Jabalpur, Jaipur, Jullunder, Kottayam, Lucknow, Madras, Nagpur, Patna, Poona.

#### Bombay Office:

Dunlop House, S. Patkar Marg (Hughes Road), P.O. Box No. 4023, Bombay 7. Phone : 353322 (5 lines).

Grams : . " DUNLOPS ", Bombay.

Manufacturers of: tyres and tubes for aeroplanes, automobiles, motor cycles and scooters, tractors, earthmoving machines, animal drawn vehicles and cycles, accessories, repair and retread materials, cycle rims, conveyor and transmission belting, Vee belts, hoses, adhesives, Dunlopillo latex foam cushioning.

Shifting shortly to own premises at 132A, Dr. Annie Besant Road, Worli, Bombay 18.

## DEVIDAYAL STAINLESS STEEL INDUSTRIES PRIVATE LIMITED

Factory and Registered Office:

Tulsiram Gupta Mills, Darukhana, Reay Road, Bombay 10.

Phone: 370518-19.

Local Sale Office :

39, 2nd Bhoiwada, Bombay 2.

Phone: 336241.

Manufacturers of:

A wide range of Kitchen utensils, Tableware, Electrical Kettles, Pocket Tiffin Carriers, Fabricated Stainless Steel Tanks for Food and Chemical Industries, Wash Basins and Hospital Equipment and Railway Fittings.

## DEVIDAYAL STAINLESS STEEL INDUSTRIES PRIVATE LTD.

STAMPING DIVISION

Factory & Office :
DEVIDAYAL NAGAR,

Kanjur Village Road, Bhandup, Bombay 78.

Tel. 582514-15-16.

H. O. :- Darukhana, Reay Road, BOMBAY 10.

Phone: 370518-19.

Manufacturers of:

Quality Stampings for Electrical Equipments. D. P. Khandelwal & Sons Pvt. Ltd., 15, Loha Bhavan, P. D'Mello Road, Bombay 9.

0

D. Parikh Engineering Works, Nagoo Sayachi Wadi, New Prabha Devi Road, Bombay 25 DD.

Dada Fireworks Private Ltd., 240, Juma Masjid, Bombay 2.

Dadabhoy Hormusjee & Sons (Private) Ltd., 30, Imperial Chambers, Ballard Estate, Bombay 1.

Dadajee Dhackjee & Co. Pvt. Ltd., Sandhurst Bridge, Bombay 7.

Daisy Trading Corporation, 56, Commercial Chambers, Masjid Bunder Road, Bombay 3.

Dali B. Shroff & Co., 361, Dr. Dadabhoy Naoroji Road, Fort, Post Box No. 973, Bombay 1.

Danfoss (India) Ltd., Bank of Baroda Bldg., Apollo Street, Bombay 1.

Datamatics Corporation, Bombay Mutual Bldg., 293, Dr. D. N. Road, Bombay 1.

Daston, Raviraj & Co. (Private) Ltd., 43, Tamarind Lane, Fort, Bombay 1.

De Smet (India) Pvt. Ltd., Khanna Construction House, 44, Maulana Abdul Gaffar Road, Worli, Bombay 18

Delta Products Pvt. Ltd., 3, Modi Chambers, French Bridge, Bombay 4.

Dempo Steamships Ltd., Moti Mahal, J. Tata Road, Bombay 20.

Devidayal Stainless Steel Industries Pvt. Ltd., Tulsiram Gupta Mills, Darukhana, Reay Road, Bombay 10.

Devidayal Tube Industries Ltd., 71, Kanjur Village, Bombay 78.

Dharampur Leather Cloth Co. Pvt. Ltd., 10, Chowpatty Sea Face, Bombay 7.

# DADAJEE DHACKJEE & CO. PRIVATE LTD.

DYES DEPT., P.B. No. 3090,

274, Samuel Street, Vadgadi, Mandvi, Bombay 3.

Grams: "PROMPT", Bombay. Phones: 324161/62.

-

Importers and Exporters of and Dealers in Dyes, Chemicals and Intermediates for Dyes, for Cotton, Silk, Acetate Yarn & Woollen Textiles, Leather, Soap, Paper, Coir, Jute & Allied Industries. Also Sulphur Black and Photines (Optical Whitening Agents), Harmless Food Colours, Liquid Toilet Soap, Soap Powders, Detergents, Disinfectants and Insecticides.

\*

Branches:

Cannanore, Delhi, Kanpur, Madras, Madurai Nagpur and Patna.

### DORR-OLIVER (INDIA), LTD.

"The International", 16, Queen's Road Estate, Bombay 20.

.

ENGINEERS TO THE PROCESS INDUSTRIES AND PUBLIC HEALTH; PROCESSES AND EQUIPMENT FOR CHEMICALS, PULP & PAPER, METALLURGICAL, FERTILIZERS, MINERALS, SUGAR, STARCH, PHARMACEUTICALS, WATER, SEWAGE AND INDUSTRIAL WASTE TREATMENT.

Phone: 293992.

Telex: 2436.

Grams: "DORROLIVER".

Calcutta Office :

56-A, Free School Street, Calcutta 16.

Phone: 248498.

Telex: 660.



## DEVIDAYAL CABLE INDUSTRIES

Gupta Mills Estate, Reay Road, P. B. No. 16203, Bombay 10.

Manufacturers of: Super Enamelled Copper Wires, E.S.C.C. Wires, Cotton Covered Copper Wires and Strips, Paper Covered Wires and Strips, Welding Cables, PVC/Polythene Cables, V.I.R. Cables, T.R.S. Cables, Flexibles, Glass Insulated Wires etc. Steel and Alloy Steel wires, Galvanised Wires, High Tensile Wires, Spring Steel Wires, A.C.S.R. Core Wires, Stainless Steel Wires, Nickel Chromium Resistance

Wires — all to B.S. and I.S. Specifications.
Chairman, Board of Directors: Harikishandas Aggarwal;
Managing Director: Kewal Aggarwal; Technical
Director: Kamal Aggarwal; Secretary: D. S. Venkatraman; Legal Adviser: B. J. Kapur; Chief Accountant:
K. N. Shah; Marketing Manager: J. C. Kohli; Technical
Manager: S. Raghavan; Works Manager: M. R. Lodh.

Manager: S. Raghavan; Works Manager: M. R. Lodh. Factory at: Pokhran Valley, Thana (Maharashtra)
Telegrams: TRIMEL. Telex: TRIMEL 2741.
Phones: Office: 372151 (5 lines); Factory: 593471

(4 lines)

Branches at: DELHI, MADRAS, AHMEDABAD.

Sole Selling Agents: CABLE MARKETING COMPANY
Gupta Mills Estate, Bombay 10.

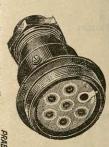


METALCLAD WEATHERPROOF

## INDUSTRIAL **PLUGS\*SOCKETS**

## . A Complete Range ...

- From 5 Amps to 100 Amps.
- 2 Pole & Multi-pole.
- At 250 volts and 500 volts.
- Ensures firm Electrical Contact and withstands an Electrical Test. Equal to accepted Standards (BSS & ISI)



PRODUCTS ARE TESTED AND TYPE APPROVED BY CHIEF INSPECTORATE OF ELECTRONICS, BANGALORE, L.R.D.E.BANGALORE, INDIAN INSTITUTE OF SCIENCE, BANGALORE & D. T. D. & P. (AIR) NEW DELHI FOR USE ON VARIOUS DEFENCE EQUIPMENTS.

## Dattatraya Industries-PVT.LTD.

691/A, Poona-Satara Road, Poona-9. Gram : DIPRO' Poona Phone : 27 116

#### Branch:

Sitaram Bldg., D. N. Road, (Crawford Market), Bombay-1. Phone: 263003.

## DE SMET (INDIA) PRIVATE LIMITED

(Indo-Belgium Collaboration)

#### PROCESS ENGINEERS AND CONTRACTORS

- 1. Chemical Process Plants on Turnkey basis: Solvent Extraction Plants, Vegetable Oil Refining Plants, Cottonseed Processing Plants, Vanaspati Plants, Cattlefeed Plants, Guar Gum Plants etc.
- 2. Chemical Process Equipment and Machineries: Pressure Vessels, Heat Exchangers, Agitated Reaction Kettles, Dryers, Evaporators, Blenders-Mixers, Crystallisers, High Vacuum Equipment, Process and Steam Pipe line.
- 3. Steel structures for Factories, Residential Buildings, Warehouses, Gantry Girders etc., from design stage to erection stage,
- 4. Workshop having most modern machine tools, stainless steel and aluminium Fabrication Shop equipped with Electric Overhead Cranes.

#### Address:

Khanna Construction House, 44 Maulana Abdul Gaffar Road, Worli, Bombay-18 WB.

Phone: 372231-2-3.

Grams: "EXTRAXMET".

Telex: 3003

Managing Director

: Ram Sharma

Project Manager

: P. G. Bhandari

Commercial Manager

: B. S. Rajpal

Technical Adviser

: P. N. Mathur

Guar Gum Div. Manager: K. N. Sujeer

Purchase Officer

: P. G. Davy

Accountant

: S. G. Nayak

Factory

: Panchpakkhadi Village, Thana

Works Manager

: R. S. Parihar

Production Manager

: D. P. Malhotra

Dharamsi Morarji Chemical Co., Ltd., Prospect Chambers, 317-21, Dr. Dadabhoy Naoroji Road, Bombay 1.

1

Dialdas, M., & Sons (India) Private Ltd., Haroon Building, 190, S. Gandhi Marg, Bombay 2.

Dobson & Barlow (Rayon Plants) Pvt. Ltd., Stadium House, Veer Nariman Road, Bombay 1.

Dodge & Seymour (India) Pvt. Ltd., "Krupanidhi", 9, Wittet Road, Ballard Estate, Bombay 1 BR.

Dodsal Pvt. Ltd., Mafatlal House, Backbay Reclamation, Bombay 20.

Dongre & Co., Private Ltd., K. T., 82, Nagindas Master Road, Bombay 1.

Doongarsi Gangji & Sons Pvt. Ltd.—Canada Building, 2nd Floor, Home Street, Fort, Bombay 1.

Dorr-Oliver (India) Ltd., "The International," 16, Queen's Road, Estate, Bombay 20.

Drennan & Co., Neville House, Ballard Estate, Bombay 1. Drewet Chowna & Co., Adenwalla Building, 121-123, Medows St., Fort, Bombay 1.

Dujodwala Industries, 95-B, Marine Drive, Bombay 20.

Duke & Sons Private Ltd., Opp. Krishna Cinema, Tribhuwan Road, Bombay 4.

Dunlop India Ltd., "Dunlop House," Hughes Road, Bombay 7.

Durga Commercial Corporation Pvt. Ltd., Wakefield House, 11 Sprott Road, Ballard Estate, Bombay 20.

Dynacraft Machine Co. Pvt. Ltd., Juhu Lane, Andheri, Bombay 58.

E. Peerbhoy & Sons, Shahru Castle, 64, Mahommedali Road, Bombay 3.

Eagle Eximport Pvt. Ltd., Himalaya House, Palton Road, Bombay 1.

#### ENDESCO PVT. LTD.

Industrial & Management Consultants, Project Engineers. Registered Office: "Shivaenumh", 205, Dr. A. Besant Road, Worli, Bombay 18. Telephone: 372614. Grams: "ENDESCON". Chairman: Mr. M. R. Thadani, Managing Director: Mr. H. N. Thadani, Directors: Mr. M. T. Mansukhani and Mr. B. T. Shahani.

Foreign Associates:

Ramseyer & Miller Inc. New York (USA), Iron & Steel Consultants.

Industrial Market Research Ltd., London S.W.I (U.K.).

Project Engineers:

Market Research for Industrial & Consumer Products, Planning for new Projects and expansion of industries for Agricultural machinery, Cement, Engineering, Forging Shops, Rolling Mills, Paper, Chipboard and Fibre Board, Sugar, Textiles.

Management Consultants:

Management organisation, financial controls, cost accounting, production planning and equipment utilisation, work standards, job evaluation, piece rates and incentives, material handling and mechanics. nisation, stores organisation and inventory control, material utilisation and waste control, operation research, Pert/CPM, valuation of plant machinery and buildings, selection of management and technical staff, market research.

#### ESSENTIAL ENGINEERING CO.

Importers, Engineers & General Machinery Merchants

II, Botawala Building, Horniman Circle, Fort, Bombay I.

Phones: 318695 & 252929. Grams: "ESSENCE"

Manufacturers of: "ESENPRO" Worm Gear, Helical Bevel, Spur Gears, Geared Motors, Torque Arm Shaft Mounted Gears, Open and Closed Type Variable Speed Drives, Sprocket Wheels as per B.S.S. Pin Bush Type Flexible Couplings, Transformer Welding Sets, Motor Generator Arc Welding Sets, Solari Card Time Recorders. Also ask us for : Sugar Machinery Chains, Conveyors, Elevators, Slats, etc.

#### ELMOT ENGINEERING CO. PVT. LTD.

Manufacturers of :

D.C. Motors

Low Voltage High Current D.C. Motors

D.C. Generators

Battery Charging Generators

Ground Power Units

Dynamometers

Power/Conversion Sets

Variable Speed Drives-Ward-Leonard Controlled

A. C. Motors

Alternators

Petrol Generating Sets

Diesel Generating Sets

High Frequency Alternators

Auto Synchronous Motors

A.C. Variable Speed Shunt Commutator Motors.

2, Udyog Nagar, Swami Vivekananda Road, Goregaon (West), Bombay 62 (NB).

Grams: "ALTERNATOR", Bombay 62

Phone: 693209. Telex: 011-3389. East & West Trading Co., Advani Chambers, 4th Floor, Sir P. M. Road, Fort, Bombay 1.

East Asiatic Co. (India) Pvt. Ltd., Wavell House, Graham Road, Ballard Estate, Bombay 1.

Eastern Bunkerers Ltd., Scindia House, Dougall Road, Ballard Estate, Bombay 1.

Eastern Card Clothing Co. Pvt. Ltd., Lamington Road North, Lal Chimney, Bombay 11.

Eastern Trading & Engineering Co., Alice Building, 339, Dr. D. N. Road, Bombay 1.

Echjay Industries Pvt. Ltd., Kanjur Village Road, Bhandup, Bombay 78.

Elecon Engineering Co. Private Ltd., 125, Dinshaw Vachha Road, Bombay 20.

Electric Construction & Equipment Co. Ltd., Wakefield House, Ballard Estate, Bombay 1.

Electricals (India) Pvt. Ltd., 24-B, Hamam Street, Fort, Bombay.

Elliott, Waud & Hill Private Ltd., 1.2 Lakshmi Building, Sir P. Mehta Road, Fort, Bombay 1.

Elve Business Contact Corporation, Elve Chambers, Green Street, Bombay 1.

Emco Elektra Pvt. Ltd.—94, Meadows Street, Fort, Bombay 1.

Emmes Metals Private Ltd., 147, Govt. Industries Estate, Kandivli (West), Bombay 67 NB.

Endseco Pvt. Ltd., "Shivaenumh", 205, Dr. A. Besant Road, Worli, Bombay 18.

Engineering & Agencies Pvt. Ltd., French Bank Building, Homji Street, Fort, Bombay 1.

Engineering Construction Corporation Limited, L. & T. House, Dougall Road, Ballard Estate, Bombay 1.



### EVERGREEN WIRECLOTH FACTORY

Leading Manufacturers of :

Welded Wire Mesh, High Tensile Gauze, Hex. Wire Nettings, Spring Steel Wire Screens, Wires Chainlink Fencing, Crimped Wire Net, Barbed Wire, Panelpins and other Wire Products.

Head Office:

Bhabha Beilding, 151/155, Princess Street, Bombay 2.

Grams: "WIREMESH".
Telex: 011-3244
Code—WIRENET

Factory: Goregaon (East), Bombay 63. Phone: 691321.

Phone: 312461.

Branch: 182, Nainappa Naick Street, Madras 3.
Phone: 32846. Grams: "WIRECLOTH".



## ENGINEERING CONSTRUCTION CORPORATION LIMITED

(A wholly owned subsidiary of Larsen & Toubro Limited).

Registered Office:

L&T House, Ballard Estate, Bombay I.

Phone: 268181. Grams: "LARSENBRO".

Telex: TLX 2246.

Head Office: 4-5 Club House Road, P.B. No. 343, Mount Road, Madras 2.

Phone: 82119. Grams: "CIVICON". Telex: TLX 270.

Designers, Civil, Mechanical, Electrical Engineers and Constructors.

Directors: H. Holck-Larsen, S. K. Toubro, P. G. Bhagat, John Hover, E. B. Mogensen.

General Manager: P. H. Mortensen.

Offices at: Bombay, Calcutta, Madras and Madurai.



## OF INDIA LIMITED

(Larsen & Toubro Limited in collaboration with Castopar Societe de Participations et D'Etudes Castolin S.A.).

Registered Office: L&T House, Ballard Estate, Bombay 1.
Phone: 268181. Grams: "EUTECTWELD". Factory:
113, Koliwada Road, Sion East, Bombay 22 DD.

Manufacturers: EUTECTIC low temperature welding alloys, electrodes, gas rods, fluxes and Eutalloy torches and accessories.

Directors: H. Holck-Larsen, N. M. Desai, Gunnar Hansen, R. D. Wasserman, F. Brandenburg, J. L. Henry (Alternate Director), M. H. Mody (Alternate Director).

Selling Agents: Larsen & Toubro Limited, P.O. Box 278, Bombay I. Phone: 268181. Grams: "LARSENBRO". Telex: TLX 2246.



0

### VEREST

ADVERTISING PRIVATE LIMITED

ADVERTISING MARKETING MARKET RESEARCH PUBLIC RELATIONS

Kitab Mahal, 192 D. Naoroji Road, Bombay I.

Phones: 26-4771 (4 lines) Grams:

"EVERESTAD", Bombay

ASSOCIATES THROUGHOUT THE WORLD

English Electric Co. of India Ltd., Vulcan Insurance Building, Veer Nariman Road, Bombay-20. (BR).

Enterprise Agencies Pvt. Ltd., National Insurance Bldg..

204, D. N. Road, Bombay 1. Escorts Ltd., 148, Mahatma Gandhi Road, Bombay 1.

Essential Engineering Co., 11, Botawala Building, Horniman Circle, Fort, Bombay 1.

Esso Standard Eastern Inc., 17, Jamshedji Tata Road, Bombay 20.

Esso Standard Refining Co. of India Ltd., Post Box No. 355, Bombay 1.

Eutectic Weiding Alloys of India Ltd., L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Everest Advertising Pvt. Ltd., Kitab Mahal, Dr. D. N. Road, Bombay 1.

Everett Steamship Corporation, Fort House Annexe, 221, Dadabhoy Naoroji Road, Bombay 1.

Eve's Weekly Pvt. Ltd., Peraj Bldg., Apollo Street, Bombay 1.

Excel Industries Ltd., 184, Ghodbunder Road, Jogeshwari, Bombay 60.

Excel Process Pvt. Ltd., 117, M. Vasanji Road, Bombay 69. Ex-Cell-O India Ltd., 78-B, Dr. Annie Besant Road. Worli, Bombay 18.

Excelsior Trading Co., 196, Samuel Street, Bombay 9. Exporters (India) Ltd., 259, Johari Mansion, Kalbadevi Road, Bombay 2.

Extrusion Processes Private Ltd., Ram Baug, Swami Vivekananda Road, Malad, Bombay 64.

F. Bock (Agencies) Pvt. Ltd., Shale Building, Bank Street, Post Box No. 1288, Fort, Bombay 1.

F. E. Hardeastle & Co., Pvt. Ltd., Alice Buildings, Dr. Dadabhai Naoroji Road, Fort, Bombay I.

#### FRENCH MOTOR CAR COMPANY, LIMITED

Motor Vehicles and Accessories, Importers, Repairers, Engineers and Body-Builders. Distributors in Bombay for Hindustan Ambassador Cars and Hindustan Trucks. Home retention and Home delivery in the U.K. can be arranged for Austin, Morris, Wolseley, Riley and M.G. cars. Distributors for Smiths Motor Accessories, S. U. . Carburettors and Pumps.

District Manager: C. Duarte. Sales Manager: P. M. Solapurkar. Parts Manager: G. A. Lobo. Chief Accountant : U. L. Deshpande. Works Manager : J. Saul.

Office, Showroom and Service Station: 9/11, Nyayamurti Sitaram Patkar Rd., Bombay-26 WB.

> Works and Service Station: Annie Besant Road, Worli.

> > Registered Office:

234-3, Acharya Jagadish Chandra Bose Road, Calcutta 20. Tel. Address: "DIAMOTO."

Phones: Office and Showroom: 357361/5. Worli Workshop: 452887, 452928.

#### FLEMING, JOHN & CO., PVT. LTD.

**Engineers & Contractors** 

21, Bastion Road, Opp. Excelsior Theatre, Fort, Bombay 1. Grams : " MORELOS ". Phones: 261153-55.

Post Box No. 76.

General Manager: A. B. Turner.

Directors: A. B. Turner, Shavak P. Patel, B. G. Fondekar, K. M. Gherda. Secretary: M. N. Bhagalia.

Specialist Lines.

Painting Gunite/Waterproofing/Repairs Electric Lift Installation, Maintenance and Repairs Paint Sales

Executive in Charge E. F. Dhondy J. Harris P. B. Dubash J. J. Ollia

Agents for English

Tylors (Division of Crane Ltd.), Burgess Hill, Sussex, England. Re: Water Meters, & Industrial Meters for all liquids.

DeVilbiss Co. Ltd., Bournemouth, England. Re: Spray Painting Equipment.

Triangle Valve Co. Ltd., Wigan, Lancs., England. Re: Cast Steel Valves.

American

DeVilbiss Co., Toledo, Ohio, U.S.A. Re: Air Compressors, Spray Painting Outfits, Hoses, etc.

SE Fahrzeugwerke GmbH, 2 Hamburg 74, Berzeliusstr. 10, West Germany. Re: Fork Lift Trucks.

### FORBES FORBES CAMPBELL & COMPANY LIMITED

Founded 1767

Registered Head Office: Forbes Building, Home St., Bombay-I BR.

Phone: 26-8081. Telex: 2369.

Cables: "Forbes" "Yestermorn" - Forbes General

" Latham ' Lathams Division "Steamers" - Shipping Division " Japackline " - Shipping Division

(Royal Interocean Lines) "Tankfleet" (Mobil) "Drechtship" - (Van Ommeren)

Factories: Chandivli, Saki-Powai Road, Bombay 72.

**NEW DELHI** 9-10/3, Asaf Ali Road. 6A, Middleton Street. CALCUTTA

MADRAS Raji Building, 147, Mount Road. AHMEDABAD Setalvad House, Mirzapur Road. BANGALORE 42 IInd Cross, Kalasipalayam

Layout. SCF 11/12, Sector 22C. CHANDIGARH Shaker Ganj, P.O. Jubilee. **HYDERABAD** KANPUR 7/84, Tilak Nagar.

POONA Hind Vijay Compound, 658, Shivaji Nagar.

Directors: F. H. Kemple, Esq. (Chairman). The Rt. Hon. Lord Colgrain, M.C., S. K. Handoo, Esq., G. Khandwala, Esq., Duleep Matthai, Esq., S. S. Vaze,

Esq., D. J. Madan, Esq.
Companies for which Forbes Forbes Campbell & Co. Ltd. are Secretaries:

MAVAG (OVERSEAS EXPORTS) PVT. LTD. Machinery Spare Parts and Tools. VAC-U-MATION LTD.—Discharge of Grain Tankers.

**DIVISIONS OF FORBES FORBES CAMPBELL** & CO. LTD.

Communications Division: Distributors of: Wire Communications Equipment. HF, VHF, UHF and Microwave Communications Equipment.

Sound and Vision Broadcasting Equipment. Electronic Testing and Measuring Instruments. Vacuum Equipment.

Electronic Components and Raw Material. Airfield Equipment.

Manufacturers of: Electronic Testing Instruments, Valve and Transistor Stabilized Laboratory Power Supplies, Battery Eliminators, Battery Chargers, Float Chargers, Power Plants for Telephone Exchanges, Transportable Rectifiers, Heavy Duty Industrial Rectifiers for Electroplating, Hydrogenation, etc.

Automatic Voltage Regulators and Inverters.

**Engineering Sales Division:** Distributors for : Milling Machines, Surface Grinders, Center Lapping Machines, Facing & Centering Machines, Centering Machines, Multispindle Drilling Machines, Multispindle Tapping Machines, Sinmplex & Duplex Milling Machines, Jig Boring Machines, Crank-shaft & Camshaft Grinders, Optical Measuring Equipment, Power Presses and Shearing Machines, Abrasive Cutting-off Machines, Spring Washers, Circlips, Flexible Vibrator Shafts and Machines, Rotary Cutting Tools, Universal Joint Kits, Propellor Shafts, Spark Plugs, etc.

General Sales Division:

Distributors for: John Walker & Sons Ltd. (Johnnie Walker Scotch Whisky), Rutherford Osborne & Perkin Ltd. (Exshaw Cognacs and Brandy), Tanqueray Gordon & Co. Ltd. (Gordon's Dry Gin), Ind Coope Limited (Allsopp's Lager Beer), Twiss & Brownings & Hallows Ltd. (Dry Monopole Champagne), White-ways Cyder Co. Ltd. (White-way's Devon Cider and "Pomona" Champagne Cider), Williams & Humbert Ltd. (Sherry), The Maharashtra Sugar Mills Ltd. (Prince Valiant Whisky, Bishop's Brandy, Crescent Gin and Crown Prince XXX Rum), Bluebell Products (Capri and Juvena Wines).

Barbour Threads Ltd., N. Ireland (Linen Thread and Cord),

W. & J. Knox Ltd., Scotland (Flash nettwine). W. Weddel & Co. Ltd., London (Australian and New

Zealand Mutton Tallow).

Industrial Division:

Manufacturers of : Flexible Shaft Drives & Equipment, Spring Washers, Circlips, Tungsten Carbide, HSS & TS Rotary Cutters, High Speed Pneumatic Air Tools, Solid Carbide Drills and Reamers, Special Tools Jigs and Dies.

Insurance Division: Agents for: The New India Assurance Co. Ltd. The South India Insurance Co. Ltd. Legal and General Assurance Society Ltd. The Liverpool & London & Globe Insurance Co. Ltd.

Life Insurance Corporation of India. Latham Division:

Distributors for : Halda Typewriters, Facit Calculators & Adding Machines, 'Das-Oce' Document Copying Machines, Paper Shreaders, Shourie Duplicators, Marsh Stencil Equipment, De La Rue Note Counting Machines, Eskophot Photo Copying Machines. Also, Dealers in Hire Purchase Financing for Machinery.

Shipping Division:

Agents for: American President Lines Ltd., Ellerman & Bucknall Steamship Co. Ltd., Royal Interocean Lines, Mobil Group of Marine Companies, Holland-Australia Line, N. V. Koninklijke Paketvaart Maatschappij, Marine Carriers Corporation, Commodity Transportation Corporation, U.S. Shipping Corporation, U.S. Tankers Corporation, Bank Line Ltd. (American and Indian Line), Sir R. Ropner & Co. (Management) Ltd., Stephen Sutton & Co. Crewing Agents for : Phs. Van Ommeren N.V.

Passenger Agents for: American President Lines Ltd., Royal Interocean Lines, Ellerman & Bucknall Steamship Co. Ltd., Grace Line.

Clearing and Forwarding Department: All types of cargo.

### FINLAY, JAMES & CO., LTD.

0

(Incorporated in Great Britain with Limited Liability)

#### Merchants

Chartered Bank Building, Mahatma Gandhi Road, Post Box No. 73. Phone: 258355.

Head Office: Glasgow.

Indian Branches: Calcutta, Visakhapatnam, Cochin, New Delhi and Goa.

S. F. Joshi

I. R. Rao

L. S. D'Souza

A. Kumar

Agents

Corporation of Lloyd's

and

Salvage Association, LONDON.

## SHIP AND CARGO SURVEYORS AND CLAIM SETTLING AGENTS

For over one hundred British, Continental, American and Japanese Insurance Companies.

#### Agents

The Yorkshire Insurance Co. Ltd., Commercial Union Assurance Company Ltd., London, South India Insurance Co., Ltd., New Great Insurance Company of India, Limited, British India General Insurance Company Limited.

#### STEAMER AGENTS:

The Clan Line Steamers Ltd., London. Shinwa Kaiun Kaisha Ltd., Tokyo.

#### REPRESENTING:

Manganese Ore (India) Ltd.; The C. P. Manganese Ore Co. Ltd.; Enso-Gutzeit Osakeyhtio—Kraftliner and Fluting; Finnish Board Mills' Association—Box Board, Chipboard, etc.; Finnish Cellulose Association—Chemical Woodpulp, Mechanical Woodpulp and Rayon Pulp; Finnish Paper Mills' Association, Dept. I—Newsprint; Finnish Paper Mills' Association, Depts. II & III—Various types of paper; Finnish Paper & Board Converters' Association—Corrugated Board and other Converted Products; Oy Wartsila A/b—Paper Manufacturing Machinery, Ships, Porcelain, etc.; Speciality Papers Ltd.—Fine Papers; Tervakoski Osakeyhtio Paper Mills—Fine Papers and Electrical Papers, etc.

#### LLOYD'S SUB-AGENCY, GOA:

Surveyor and Sub-Agency Manager: Captain V. Pereira. Sub-Agents for Lloyd's and Salvage Association, London.

Fairfield Manufacturing Co., Hanuman Bldg, 4th Floor, Tambakanta, Bombay 3.

Famous Ladders Manufacturing Co., 128-130 E, Victoria Road, Byculla, Opp. Massina Hospital, Bombay 27.

Fancy Corporation Ltd., 16, Apollo Street, Bombay 1.

Fereshaw, L., & Co., Shirin Mansion, Sleater Road, Bombay 7.

Fertiliser Corpn. of India Ltd., Chembur, Bombay 74.

Ferrodie Pvt. Ltd., Roxy Chambers, New Queens Road, Bombay 4.

Firestone Tyre & Rubber Co. of India Private Ltd., Hay Bunder Road, Bombay 15.

Fit Tight Nuts & Bolts Ltd., Old Ashram, M. Vasanji Road, Bombay 69.

Ford Rhodes Parks & Co., 45, Apollo Street, Bombay 1.
Francis Klein & Co. (Bombay) Pvt. Ltd., Shale Bldg.,
Bank Street, Bombay 1.

Freyssinet Prestressed Concrete Co. Ltd., Hamilton House, Graham Road, Ballard Estate, Bombay 1.

G. L. Natu & Sons Pvt. Ltd., Bank of Baroda Bldg, Palton Road, Bombay 1.

G. N. Musry Pvt. Ltd., Canada Bldg., Home Street, Bombay 1.

Gabriel India Ltd., Agra Road, Mulund, Bombay 80.

Gammon India Ltd., Gammon House, Veer Savarkar Marg, Bombay 25.

Ganesan Pvt. Ltd., P. N. Kitab Mahal, Dr. D. N. Road, Bombay 1.

Gannon Dunkerley & Co. Ltd., Chartered Bank Building, Bombay 1.

Gansons Pvt. Ltd., Industry Manor, 2nd Floor, off Cadell Road, Bombay 25-DD.

#### GEOFFREY MANNERS & CO., LTD.

Manufacturers, Importers & Distributors of Pharmaceuticals, Fine Chemicals, Toilet Requisites and allied products.

#### Registered & Head Office:

Magnet House, Narottam Morarjee Marg, Ballard Estate, Bombay. Phones: 26-6991.

#### Marketing & Sales Divisions:

Udyog Bhavan, Walchand Hirachand Marg, Ballard Estate, Bombay. Phones: 26-6002-3.

#### Factory:

Hattersley Mills Estate, Lal Bahadur Shastri Marg, Ghatkopar, Bombay. Phone: 58-2361-2-3-4-5.

#### Bombay Sales Office:

Veer Savarkar Marg, Dadar, Bombay. Phone: 45-3428.

#### Sales Offices :

Calcutta, New Delhi, Madras, Bangalore, Gauhati, Kanpur, Patna, Ahmedabad, Jaipur, Chandigarh, Cochin.

### GARLICK & CO. PVT. LTD.

Engineers, Iron Founders, Industrial Equipment
Manufacturers and Machine Tool Dealers.

Bapurao Jagtap Marg, Sant Gadge Maharaj Chowk, Bombay-II.

Tel. Address: "GARLICK". Phone No. 375141 (4 lines).

Estd. 1878, Inc. 1949.

#### Also at :

Maskati Market, Kapasia Bazar, Ahmedabad 2; 42/I Silver Jubilee Park Road, Bangalore 2; Green Gates, Saifabad, Hyderabad (A.P.); 38/3 Mount Road, Madras 6; 901, Akash Deep, Barakhamba Road, New Delhi.

Garlick & Co. Pvt. Ltd., Haines Road, Jacob Circle, Bombay 11.

Garuda Indonesian Airlines, Ritz Hotel, Bombay 20.

Garutman Industries Ltd., 188, Sawarkar Marg., Bombay 16.

Garware Filament Corporation Pvt. Ltd., Chowpatty Chambers, Sandhurst Bridge, Bombay-7.

Garware Plastics Pvt. Ltd., Chowpaty Chambers, Bombay 7.

Gaumant Kalee Ltd., Ashoknagar Road, Bombay 67. Gazdar Private Ltd., Taj Mahal Hotel, Bombay 1.

Geeta Trading Co. Pvt. Ltd., Sangli Bank Bldg., 296,

Bazargate Street, Fort, Bombay 1. Genco Industries Pvt. Ltd., Alli Chambers, Tamarind

Lane, Bombay 1.

General Commercial Corporation, 45, Tamarind Lane,
Bombay 1.

General Electric Co. of India, Pvt. Ltd., Magnet House, Dougall Road, Ballard Estate, Bombay 1.

General Electric Industries, Hamam House, Hamam Street, Bombay 1.

General Equipment Merchants Ltd., Khorshed Bldg., Sir P. M. Road, Bombay 1.

General Industrial Stores Supplying Co. Pvt. Ltd., 35, New Marine Lines, Bombay 20.

General Superintendence Co. (India) Pvt. Ltd., Sohrab Mansion, 35, Murzban Road, Bombay I.

General Tubes Pvt. Ltd., 142/44, Nagdevi Street, Bombay 3.

Geoffrey Manners & Co., Ltd., Magnet House, Dougall Road, Ballard Estate, Bombay 1.



#### GEORGE OAKES LIMITED

Bombay Operations Swadeshi Mills Estate, Mama Parmanand Marg, Bombay 4.

P.O. Box No. 499, Bombay.

All India Distributors for Ford Passenger Cars, Trucks and related spare parts.

All India Distributors for IP Hepolite Pistons, Rings and Liners.

All India Distributors for Perkins P6(V) Diesel Engines and Conversion Kits for all makes of vehicles and related spare parts.

"OAKES" Batteries, Brake Fluid, Sealed Beam Lamps, Filter Elements and other Accessories.

Phones: 352391-4 (4 lines). Grams: "GEORGOAKES."

#### GULF OIL (INDIA) PRIVATE LTD.

Registered Office:

Steelcrete House, 3, Dinsha Wacha Road, Bombay 20.

Importers & Distributors of Petroleum Products.

Area Offices: Ahmedabad, Indore and Madras.

Director & Manager: R. R. Mistri.

Assistant Manager: K. J. Lawyer.

Assistants : J. D. Sassoon, H. Jaffrey, S. M. Bhiwandkar,

A. V. Balasubrahmanian, B. N. Shroff and A. G. Gupte.

Phone: 295131 (3 lines). Grams: "GULFINDIA".

#### GOKAK MILLS LTD., THE

Business: Manufacturers of: Yarn and Cotton Tyre Cord.

Directors: H. F. Kemple, Chairman; Bhagwandas C. Mehta, Pratap Bhogilal, Balkrishna Harivallabhdas, R. F. S. Talyarkhan, S. R. Vakil, G. Khandwala. (Vice-Chairman), D. J. Madan, (Managing Director).

Registered Office: Forbes Building, Home Street, Fort, Bombay I.

Bombay Office Phone: 268081 (20 lines).

Bombay Office Telegraphic Add.: "YESTERMORN".

Telex: TLX 2369, Answer Back Steamer By.

Mills at Gokak Falls, Belgaum Dist., Mysore State.

Mills Telegraphic Address: "TURBINES", Gokak Falls.

Mills Telephone No.: 4 (Gokak).

Mills General Manager: R. Murray.



# Grant Advertising (India) Limited

Advertising Agents & Consultants.

Managing Director : S. Chatterji.

Registered Office: Lotus House, Marine Lines, Bombay 20.

Phone : 291222 (4 lines). Grams : "GRANTCHI".

Branches at : Calcutta, Madras & New Delhi

(Associate offices all over the World).

#### **GREAVES FOSECO LIMITED**

Regd. Office: 1, Forbes Street, Bombay 1. (Tel. 259771).

#### Board of Directors:

N. M. Wagle

M. F. C. Elliot

R. D. Pusalkar

M. B. Bhaskare

E. Weiss (resident in U.K.)

D. V. Atterton ,, R. C. Edmonds ,,

G. E. Cobby .. ..

#### Head Office:

- (i) P. J. Garner General Manager.
- (ii) S. M. Deshmukh Group Purchase Controller.

#### Manufacturing Units:

- (i) Greaves Foseco Limited,
   Bombay-Poona Road, Chinchvad, Poona-19.
   G. V. Hiranandani Production Works Manager.
- (ii) Greaves Foseco Limited, Taratalla Road, Opp. Brace Bridge Rly. Station, Calcutta-53.
  - S. J. Singh Deputy General Manager.
  - S. K. Neogi Works Manager.

#### **GAYTEE & COMPANY**

Janmabhoomi Chambers, 4th Floor, Fort Street, Fort, Bombay I.

Phone: 26-3449. Grams: "IMPENG".

Engineers, Merchants & Direct Importers of Industrial Machinery and Engineering Stores.

Distributors for : ADVANI-OERLIKON, Electrodes.

Representing: USINES ET ACIERIES DE SAMBRE ET MEUSE, PARIS, FRANCE, Steel Castings, Carbon Steel and Alloy Steel, Railroad Parts, Armament Products, Aircraft Bombs, Machinery etc. UNITED ROPEWORKS, Post Box No. 1143, Rotterdam, Holland. Manufacturers of Wire Ropes. CONTIGEA BRUXELLES, BELGIUM, Manufacturers of Water Meters, Gas Meters and Geysers. R. S. STOKVIS & ZONEN N. V., P.O. Box 426, Rotterdam (Holland). Manufacturers of Wood Working Machinery and machine Tools. ELSWORTH LIMITED, SHEFFIELD, ENGLAND, Manufacturers of Woodworking Saws & Woodworking Tools. WALTER SPENCER & CO., LTD., SHEFFIELD, ENGLAND, Manufacturers of High Speed Steel, Alloy Tool Steel, Carbon Tool Steel, etc., etc. Milling Cutters, Twist Drills, Reamers, Siltting Saws, Files, Carbide Tipped Tools, Lathe Tools, etc. W. S. BARRON & SONS LTD., GLOUCESTER, ENGLAND, Manufacturers of Screw Lift Elevators and Conveyors. COMPTOIR DES FERRURES, CHARLEVILLE (ARDENNES), FRANCE, Manufacturers of Component Parts of Machinery, Rolling Stock, etc. ALLOYS ZEP?ENFELD, 21 b, oberveischede, Uber Grevenbruck, West Germany, Manufacturer of Builders' Hoists and Power Winches.

# GLAXO LABORATORIES (INDIA) LIMITED

Dr. Annie Besant Road, Worli, Bombay-18 WB.

#### Factories at

Aligarh, Bombay and Thana. Branches at Bombay, Calcutta, Madras and New Delhi. Depots at Ahmedabad, Ambala, Bangalore, Ernakulam, Gauhati, Indore, Jaipur, Kanpur, Lucknow, Ludhiana, Patna, Srinagar, Vijayawada. Distributors at Poona, Nepal, Kutch and Goa.

Chairman: lain MacKinnon.

Managing Director: D. J. R. Farrant.

Directors: L. J. Wyman, K. W. Thompson, Dr. D. T. Modi, B. Sarin, P. R. Choksy, Lt. Gen. S. P. Bhatia, H. B. Dhondy, H. W. Palmer, W. J. Hurran.

Secretary: P. R. Choksy (also Director).

Asstt. Secretaries: V. R. Jhaveri, J. S. Khambata.

Managers: Dr. M. Paul Anand, Dr. D. D. Banker,
T. P. Frewin, T. Gupta, R. Hoon, R. S. Iyer,
P. B. Javat, S. C. Khanna, P. Mansukhani, G. I.
Pereira, Dr. S. K. Punshi, G. Ramabadran, N. Rangaswamy, C. S. Sandys, Dr. D. S. Saraswat, Shanti Prakash,
Dr. V. K. Sharma, M. P. C. Shetty, G. Srinivasan,
Surendar Kumar, Dr. J. V. Vora, Dr. S. V. Vora, Dr.
M. C. Watsa.

Telegrams: "GLAXOLABS", Bombay 18, Calcutta, Madras, New Delhi. Phone Nos.: Bombay H.O. 454311; Bombay Branch 457287 & 457280; Calcutta 459195 (4 lines); Madras 801944 (4 lines); New Delhi 76203 (3 lines). P.O. Box Nos.: 202 (Bombay-1); 2257 (Calcutta-1); 3211 (Madras-32); 510 (New Delhi-20).

Telex Nos.: Bombay — No. 011-2454 — GLAXLAB;
Calcutta — No. 449 — GLAXLAB CA; Madras —
No. 487 — GLAXLAB MS; New Delhi — No. 512 —
GLAXLAB ND.

### GUEST, KEEN, WILLIAMS, LIMITED

Registered Office:

3A, Shakespeare Sarani,

Calcutta 16.

Telegram: "POINTSMAN", Calcutta.

Works :

AT — 97, Andul Road, Howrah, West Bengal.

AT — Lal Bahadur Shastri Marg,
Bhandup,
Bombay-78.

AT — Rajajinagar, Bangalore-10.

Main products manufactured by the four Operating
Divisions:

Sankey Precision Pressings Division

Electrical steel stampings and laminations and precision mild steel pressings.

Steel Division

Bright bar, alloy, spring, high quality carbon, free cutting and other special steels.

#### **Fasteners Division**

Bolts and nuts (Mild Steel and High Tensile), rivets, spikes, wood screws, machine screws, self tapping screws, cotter pins, tinmen's rivets, tubular and semi-tubular rivets and other industrial fasteners and safety pins.

**Engineering and Forgings Division** 

Carbon, alloy and other special steel forgings.



## **GREAVES COTTON**

Registered & Head Office:

Board of Directors: L. M. Thapar, Chairman; N. M. Wagle, Managing Director; H. D. Varma, Surendr Lall; M. F. C. Elliott, Executive; I. M. Thapar; M. B. Bhaskare, Commercial Director; R. D. Pusalkar, Works Director; G. Mathrani, Sales Director.

Export Division: I, Forbes Street, Bombay I. Phone: 259771. Grams: "GREAVES". Telex:

Aviation Division: "Nitton", 2 Palace Road, Bangalore. Phones: 23873 & 26773. Grams: "GREAVES". Manager: A. R. Hindley. Engine Sales Division: Chinchwad, Poona 19. Phone: 8601. Grams: "GREAVES". Telex: 224.

Manager: T. P. Hajela.

#### **OFFICES**

Western Regional Office: I, Forbes Street, P.O. Box No. 91, Bombay I. Phone: 259771. Grams: "GREAVES". Telex: 2517. Regional

Manager: R. Bajekal.

Branches: Bombay: I, Forbes Street, P.O. Box No. 91. Phone: 259771. Grams: "GREAVES". Telex: 2517. Manager: B. Saldanha. Ahmedabad: Jaldarshan, Ashram Road, Navrangpura. Phones: 50429 & 50209. Grams: "GREAVES". Telex: 306. Manager P. N. Kotwall. Bhopal: 54, Uberoi Mansions, Shopping Centre, T. T. Nagar. Phone: 279. Grams: "GREAVES". Officer-in-charge: S. D. Kaila. Goa: Rua Caetano Lourenco Monteiro, Margao. Grams: "GREAVES". Manager: A. Mascarenhas.

Eastern Regional Office: Thapar House, 25, Brabourne Road, Calcutta 1. Phones: 224326 & 224320. Grams: "GREAVES". Telex: 568.

Regional Manager: V. Venkataraman.

Branches: Calcutta: Thapar House, 25, Brabourne Road. Phones: 224326 & 224320. Grams: "GREAVES". Telex: 568. Manager: B. B. Sen. Bhubaneswar: Unit III. Phone: 891. Grams: "GREAVES". Manager: R. Pani. Gauhati:

Bharalumukh, Assam Trunk Road. Phone: 4802. Grams: "GREAVES". Patna: Exhibition Road, Phone: 21644. Grams: "GREAVES". Manager: M. L. Khatri. Jamshedpur: Bihar State Co-operative Bank Bldg., Main Road, Bistupur. Phone: 7081. Grams: "GREAVES". Manager: B. De.

Northern Regional Office: 'Thapar House', 124, Janpath, New Delhi. Phone: 42281. Grams: "GREAVES". Telex: 508. Regional Manager:

S. V. Mani.

Branches: New Delhi: "Thapar House", 124, Janpath. Phone: 42281. Grams: "GREAVES". Telex: 508. Manager: S. Datta. Kanpur: "Thapar House", Birhana Road. Phone: 64203. Grams: "GREAVES". Telex: 237. Manager: S. K. Saksena. Jaipur: Mirza Ismail Road. Phones: 75883 & 65164. Grams: "GREAVES". Telex: 225. Manager: Y. K. Chib.

Southern Regional Office: 19, Second Line Beach, Madras. Phone: 21215. Grams: "GREAVES". Telex: 503. Regional Manager: M. R. Natu.

Branches: Madras: 19, Second Line Beach. Phone: 21215. Grams: "GREAVES". Telex: 503. Manager: R. K. Chintamani. Bangalore: Aruna Mansions, 78/1, Jayachamarajendra Road. Phone: 72640. Grams: "GREAVESITY" Bangalore, Bangalore City. Manager: S. Krishnan. Coimbatore: India House, Trichy Road. Phones: 22302 & 32998. Grams: "GREAVES". Manager: U. Bhaskar Rao. Hyderabad: Shakar Bhavan, Fateh Maidan Road. Phone: 33813. Grams: "GREAVES". Manager: U. R. Rao.

U. K. Offices: London W.C. 2: 95, Aldwych. Phone: 01-242, 3333. Grams: Care HAWKELEC. Manchester: James Greaves & Co., Brazennose House, Brazennose Street. Phone: 061-834, 0991. Grams: "GREAVES". Manager: A. H. Smith.

Manufacturing Divisions: Diamond Products Manufacturing Division. Regd. Office: I Forbes Street, Bombay I. Phone: 259771. Grams: "GREAVES". Telex: 2517. Works: Industry Manor, Prabhadevi P.O., Bombay 25 DD. Phone: 452583. Grams: "GREAVES". Manager: N. R. Shetty. Mining and concrete bits, oilfield diamond bits, industrial diamond tools viz. diamond wheels, dressers & truers, shaped tools, diamond saws, etc. Cone Plant. Regd. Office: I, Forbes Street, Bombay I. Phone: 259771. Grams: "GREAVES". Telex: 2517. Works: 91, Sayani Road, Dadar, Bombay 28. Phone: 451674. Grams: "GREAVES". Manager: S. Padmanabhan. Paper cones, tubes and pirns for the textile industry. Greaves Light Engineering Division. Regd. Office: I, Forbes Street, Bombay I. Phone: 259771. Grams: "GREAVES". Telex: 2517. Works: Mercantile House, Magazine Street, Reay Road (East), Bombay 10 DD. Phone: 373911. Diamond core drills, mud slush pumps, ancillary drilling equipment. Pressure and high temperature valves, and all types of strainers and filters required for steam applications and petroleum and chemical industry.

Associate Companies: Crompton Greaves Ltd. Regd. Office: Kanjur, Bhandup (E), Bombay 78. Phone: 582451. Grams: "CROMSTATIC". Managing Director: P. R. Deshpande. Works: (1) Kanjur, Bhandup (E), Bombay 78. Phone: 582451. Grams: "CROMSTATIC". Works Director: K. WoFthington. (2) Dr. E. Moses Road, Bombay 18. Phone:

## & COMPANY LIMITED

I, Forbes Street, P.O. Box No. 91, Bombay I.

Phone: 259771. Grams: 'GREAVES'. Telex: 2517.

373361. Grams: "CROMPARK". Asstt. Works General Manager: S. G. Padhye. Electrical switchgear, motors, table and ceiling fans, lighting

equipment, etc.

Greaves Foseco Ltd. Regd. Office: 1, Forbes Street, Bombay 1. Phone: 259771. Grams: "FOSE-COIND". Telex: 2517. General Manager: S. J. Singh. Works: (1) Chinchwad, Poona 19. Phone: 8735. Grams: "FOSECOIND". Telex: 224. Works Manager: G. V. Hiranandani. (2) Opp. Brace Bridge Rly. Station, Taratolla Road, Calcutta 53. Grams: "FOSECOIND". Works Manager: S. K. Neogi. Chemical and metallurgical compounds used by steel works, foundries and industries processing metal. Mather Greaves Ltd. Regd. Office: 1, Forbes Street, Bombay 1. Phone: 259771. Grams: "GREAVES". Telex: 2517. Works: Chinchwad, Poona 19. Phone: 8737. Telex: 281. General Manager: P. Isherwood. Calender Bowls, Stenter clips, a complete range of finishing, bleaching and printing machines, centrifugal pumps for the textile industry. Greaves Dronsfield Ltd. Regd. Office: 1, Forbes Street, Bombay 1. Phone: 259771. Grams: "GREAVES". Telex: 2517. Works: 91, Sayani Road, Dadar, Bombay 28. Phone: 451674. Works Manager: A. B. J. Pereira. ATLAS & METALLIC Brand emery fillets used in the textile industry.

Subsidiary Companies: Ruston & Hornsby (India) Ltd. Regd. Office I, Forbes Street, Bombay I. Phone: 259771. Grams: "RUSTONIND". Telex: 2517. Works: Chinchwad, Poona I9. Phone: 8601. Grams: "RUSTONIND". Telex: 224. Deputy General Manager: R. Dayal. Ruston horizontal, vertical, marine water and aircooled diesel engines, centrifugal pumps, marine sterngears and propellers. David Brown Greaves Ltd. Regd. Office I, Forbes Street, Bombay I. Phone: 259771. Grams: "DAB-GREAVES". Telex: 2517. Works: Chinchwad, Poona 19. Phone: 8736. Grams: "DAB-GREAVES". Telex: 293. Works Manager: D. Mascarenhas. Radicon worm and worm reduction gears, marine gears, power take-off units and 3-speed forward/reverse gears. Drayton Greavese Ltd. Regd. Office: I, Forbes Street, Bombay I. Phone: 259771. Telex: 2517. Works: Mercantile House, Magazine Street, Reay Road (East), Bombay 10 DD. Phone: 373911. Complete range of steam traps, strainers, sight glasses, rotary pressure joints and pressure switches.

#### TRADING ACTIVITIES

Air Conditioning & Refrigeration: Distributors for Northern and Eastern Regions: ACCEL air conditioning, refrigeration, ventilation and dust

extraction equipment. Also undertake design and execution of complete air conditioning, refrigeration, ventilation jobs on turnkey basis.

Construction Equipment: Road Construction & Earthmoving Equipment.

Distributors for Euclid dumpers; Aveling-Jessop road rollers; 'Bhagson' stone crushers; Greaves-RMT 'Sherpa' vibratory rollers—tandem and pedestrian; 'Berco' track chains, rollers, idlers, sprockets, etc. for crawler tractors.

Mining & Drilling Equipment; Distributors for: Greavestool mining and concrete bits, oilfield diamond bits, industrial diamond tools viz. diamond dressers & truers, shaped tools, diamond saws etc.; Diamond core drills, mud slush pumps, ancillary drilling equipment.

Engines: Distributors for: Complete range of RUSTON horizontal, vertical and marine water and aircooled diesel engines, alternator sets, pumps; VILLIERS petrol/kerosene 4-stroke engines; MAYUR vertical diesel engines and pump-

Industrial Equipment: Boilers & Thermal Equipment.

Distributors for: Drayton Greaves steam traps, strainers, sight glasses, rotary pressure joints, pressure switches; Stream-Line transformer and insulating oil filters; Westerwork horizontal/vertical package boilers—coal/oil/gas fired for manual/fully automatic operation. Gear Transmission Units, etc.

Distributors for: David Brown Greaves Radicon worm reduction gear units, forward & reverse gearboxes for marine and industrial applications, power take-off units; Kopp mechanical-type infinitely variable speed gear units.

**Foundry Services** 

Distributors for: Greaves Foseco chemical & metallurgical compounds, fluxes, etc. for treatment and processing of metals in steel works, foundries, etc.

Textile Machinery & Mills Stores

Distributors for: Greaves paper cones, tubes, pirns; Atlas brand emery fillets; Mather Greaves calender bowls, Stenter clips, a complete range of finishing, bleaching and printing machines, centri-

fugal pumps, etc.

Foreign Representations: Greaves are Sole Concessionaires in India for manufacturers of repute in England, U.S.A., Europe and Australia. The line covers: Aviation, Boiler & Thermal Equipment, Brickmaking Machinery, Cranes & Hoists, Diesel Engines, Drilling & Boring Equipment, Dumpers, Excavators, Earthmoving and Road Construction Equipment, Foundry Material & Equipment, Furnaces, Lubricating Oils & Greases, Gas Turbines, Gears, Industrial Presses, Textile Machinery, Metals & Alloys, Mill & Gin Stores Suppliers, Mining Machinery, Oil Purifying Equipment, Oil Well Equipment, Pumps & Pumping Machinery, Steam Traps, Valves & Measuring Instruments, Steel Manufacturers, Survey Instruments, Trailers, Truck Trailers, Winches & Haulages.

George Oakers Limited, Swadeshi Mills Estate, New Queen's Road, Bombay 4.

Getz Bros. & Co. Inc., Western India House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Gill & Co. Private Ltd., Indu House, Dougall Road, Bombay 1.

Gillanders Arbuthnot & Co. Ltd., 16, Queens Road Estate, Bombay 20.

Gladstone Lyall & Co. Ltd., 21, Lansdowne Road, Apollo Bunder, Bombay 1.

Glaxo Laboratories (India) Ltd., Dr. Annie Besant Road, Bombay 18 WB.

Gleitlager (India) Pvt. Ltd., Manu Mansion, Bhagat Singh Road, Bombay 1.

Global Publishers Service Pvt. Ltd., 31-A, Sri Ram Indl. Estate, Bombay 31.

Globe Auto Electricals Ltd., 372-D, Shastri Marg, Mulund, Bombay 80.

Glucose & Foods Ltd., 16, Bombay Shastri Marg, Bombay 70.

Godrej & Boyce Mfg. Co. Pvt. Ltd., Lalbaug, Bombay 12. Godrej Soaps Pvt. Ltd., Eastern Express Highway, Vikh-

roli, Bombay 79. Gokal & Co. Pvt. Ltd., J. V., Kastur Bldg., J. Tata Road, Bombay 20.

Golden Tobacco Co. Pvt. Ltd., Tobacco House, Vivekananda Road, Bombay 56.

Goldfield Mercantile Co., 13/15, Bastion Road, Fort, Bombay 1.

Goodlass Nerolac Paints Pvt. Limited, Forbes Building, Home Street, Fort, Bombay 1.

Goodyear (India) Ltd., Mani Mahal, Mathew Road, Bombay 4.

Graham Firth Steel Products (India) Ltd., 16, Horniman Circle, Fort, Bombay 1.

Grant Advertising India Ltd., Lotus House, Marine Lines, Bombay 20.

Grauer & Weil (India) Ltd., Sukh Sagar, Sandhurst Bridge, Bombay 7.

Great Eastern Shipping Co. Ltd., Mercantile Bank Building, 60, Mahatma Gandhi Road, Bombay 1.

Greentose Private Ltd., 24, Dalal Street, Fort, Bombay 1.

Gujarat Industrial Trucks Ltd., India House, Fort Street,(Opp. G.P.O.), Bombay 1.Gujarat Machinery Mfrs. Ltd., 32-34, Veer Nariman Road,

Churchgate House, Bombay 1. Gulf Oil (India) Pvt. Ltd., Steelcrete House, 3, Dinsha

Wacha Road, Bombay 20.

 Haldyn Industries Private Ltd., 344, Savarkar Marg, Bombay 28.
 Hamilton Industries Ltd., Block II, Suryodaya Mills

Compound, Tardeo, Bombay 34.

Hamilton Studio Private Ltd., Indu House, Dongell

Hamilton Studio Private Ltd., Indu House, Dougall Road, Ballard Estate, Fort, Bombay 1.

Harbanslal Malhotra & Sons Pvt. Ltd., 210, Dr. D. N. Road, Bombay 1.

Hardcastle & Waud Manufacturing Co., Pvt. Ltd., Alice Buildings, 339, Dr. Dadabhoy Naoroji Road, Bombay 1.

Harishkumar & Co. Pvt. Ltd., 7, Noble Chambers, Parsee Bazar Street, Bombay 1.

Harlalka Sons Pvt. Ltd., 215, Kalbadevi Road, Bombay 2.

Harsha Tankers & Shipping Agency, Mirabelle, New Marine Lines, Bombay 20.

#### **HEATLY & GRESHAM (INDIA) LTD.**

Engineers and Railway Specialists:
Bombay, Madras, New Delhi, Ahmedabad, Nagpur.

Bombay, Madras, New Delhi, Ahmedabad, Nagpur Regd. Office: 43, Forbes Street, Fort, Bombay 1.

Post Box 225. Telephones: Office: 255756 & 255865. Telex: 011-2724. Telegraphic Address: "BRAKE".

Madras Office:

Indian Chamber Building Annexe, Esplanade, Madras I. Post Box 228. Telephones: Office: 29796-8. Telex: 041-478. Telegraphic Address: "HEASHAM".

Delhi Office :

28, Barakhamba Road, New Delhi I.
Post Box 620. Telephones: Office: 42348-9.
Telex: 031-621. Telegraphic Address: "BRAKE".
Managing Director: Mr. N. Kumar (Stationed in New Delhi).

Finance Manager: Mr. M. D. Mehra (Stationed in New Delhi.

Area Managers { Bombay : Mr. B. N. Sthalekar. Madras : Mr. A. S. Niranjan. Delhi : Mr. V. Gulati.

Sole Agents for: Steel Shuttering, Scaffolding, Vibrators, Windows for Transport Vehicles, Welded Mesh, Concrete Floor Hardener & Waterproofer, Flooring for Coaches and Wagons, Concrete Batching Plants, Drill Chucks, Stone Crushers, Portable Swivelling Loaders, Hot Mix Plants, Vibrating Screens, Agricultural Pumps, Machine Tools, Industrial Furnaces, etc., etc.

Manufacturers of: Complete range of "Gresham" Industrial Oil Burning Equipment, including Burners, Blowers, Pre-heaters, Filters, Valves, etc., also Floor Springs, and Boiler Feed Injectors.

#### HINDUSTAN LEVER LTD.

Manufacturers and sellers of Laundry and toilet soaps, detergents and toilet preparations; vanaspati, margarine and refined oils; ghee, skim milk powder and baby food; dehydrated vegetables and convenience foods; glycerine; cattle and poultry feeds; and fine chemicals.

Head Office: Hindustan Lever House, 165-166, Backbay Reclamation, Bombay-20. P.O. Box 409. Phone No. 296400. Tele. Address: "HINDLEVER".

Factories: Bombay, Calcutta and Shamnagar (West Bengal); Ghaziabad and Etah (U.P.); and Tiruchirapalli (Tamil Nadu).

Research Centre: Andheri, Bombay.

Branches: Bombay, Delhi, Calcutta and Madras.

Board of Directors: V. G. Rajadhyaksha (Chairman); R. W. Archer (Vice Chairman); M. Mathias, A. D. Moddie, T. Thomas, Dr. S. Varadarajan, Dr. R. Banerjee and D. F. Webb. Company Secretary: S. H. Gursahani.

Levers Associated Trust Limited, Levindra Trust Limited and Hindlever Trust Limited, all of Bombay, are wholly owned subsidiaries administering the employee's provident and pension funds. A Sourth wholly-owned subsidiary is Indexport Limited, Bombay, formed exclusively to function as an Export House for Hindustan Lever and third party products.

Harshadray Pvt Ltd., Jiji House, Raveline Street, Bombay 1.

Havero Industries Pvt. Ltd., Indl. Estate, Lalbaug, Bombay 12.

Hazarat Welfast Ltd., Factory Unit No. 2, Shastri Marg, Bombay 79.

Health Products Pvt. Ltd., 143, Mahatma Gandhi Road, Bombay 1.

Heatex Products Pvt. Ltd., 11, Bank Street, Bombay 1. Heatly & Gresham, Ltd., 43, Forbes Street, Fort, Bombay 1.

Heavy Electricals (India) Ltd., New Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1.

Heilgers & Co. Pvt. Ltd., F. W., Indian Globe Chambers, Fort Street, Bombay 1.

Herbertsons Ltd., Ewart House, Bruce Street, Fort, Bombay 1 (BR).

Herdillia Chemicals Ltd., United India Bldg., Sir P. M. Road, Bombay 1.

Hermann & Mohatta Pvt. Ltd., B. R., Mustafa Bldg., Sir P. M. Road, Bombay 1.

Hico Products Pvt. Ltd., Mogal Lane, Bombay 16.

Higgins (Eastern) Pvt. Ltd., H. F., Janmabhoomi Chambers, Fort Street, Bombay 1.

Hillson & Dinshaw Pvt. Ltd., Marshall's Building, Ballard Road, Fort, Bombay 1.

Himalaya Drug Co., Shah House, Shiv Sagar Estate, Dr. A. Besant Road, Bombay 18.

Hind Cycles, Ltd., 250, Worli, Bombay18.

Hind Equipment Corporation Pvt. Ltd., 24-B, Hamam Street, Fort, Bombay 1.

## HINDUSTAN WIRE NETTING CO., PRIVATE LTD.

Manufacturers of:

Wire Gauze, Hexagon Wire Netting, Galvanized Chain Link Fencing, Galvanized Stranded Stay Wires, Galvanized Signal Wire, Stranded Copper Conductors and Panel Pins, Wire Nails and Barbed Wire.

Works:

Agra Road, Thana.

Works Phones: 59-3786, 59-3787 & 59-3788.

## HINDUSTAN BROWN BOVERI LTD.

Manufacturers, Engineers, Contractors and Suppliers of:

Power Plant equipment for generation, distribution and utilisation of electric energy.

Importers of

All products of BBC and their concessionaires.

Registered Office:

'Brown Boveri House', 264/265, Dr. Annie Besant Road, Bombay 25 DD.

Phone: 456365. Grams: "BROWN BOVER".

Sales & Engineering Division, Branches: All over India. Works: Baroda, Faridabad, Ghaziabad and Howrah.

#### HARDCASTLE WAUD & CO. PRIVATE LTD.

Sole Selling Agents for : (1) Hardcastle & Waud Mfg. Co. Pvt. Ltd., Mfrs. of Industrial Paints & Enamels, "Biolac" Synthetic Resins, "Mermaid" Roofing Compounds, "Insulvar" Insulating & Core Plate Varnishes, Super "Waudite" High Pressure Jointing and Gaskets, "Holdtite" Liquid Jointing Compounds, Industrial Laminates—"Hawco" Phenol Fibre—

In Sheets & Mouldings, Laminated Moulded Bearings & Components, "Kleanwell" Industrial Wire Brushes, Heat Treatment Salts & Chemicals, Cutting Coolants, Colloidal Graphite in oil "Hawco" C. G. 3, and other Industrial Materials, etc. (2) Waterproof Paper Mfg. Co. Pvt. Ltd., Mfrs. of all kinds of Waterproof Paper in Rolls for packing, etc. (3) H. W. Wharton & Co. Pvt. Ltd., Mfrs. of Toilet Papers, Adding Machine Coils, Iron, Cement, "Silica Gel" etc. (4) Amar Minerals Pvt. Ltd., Mfrs. of Asbestos & Asbestos Products, all kinds of Minerals. (5) D.C.M. Products (1937) Pvt. Ltd., Mfrs. of Brinella Casting Powder, Greases, Refractories etc.

Board of Directors : J. K. Rege and J. N. Bhaisa. Joint Managing Directors: G. J. Divadkar, C. J. Rege, A. Y. Divadkar, S. J. Rege and N. C. Thakker.

Head Office: Alice Bldg., 339, Dr. Dadabhai Naoroji Rd., Post Box No. 1254, Bombay 1.

Grams: "WAUDCO". Phone: 299292 (5 lines).

Factory: Kalyan. Branches: Calcutta, Madras, Ahmedabad, Baroda.

Codes Used: Bentley's A.B.C. 5th and 6th Edns. and Western Union.

Hind Export Corporation, Currimjee Building, 111 Mahatma Gandhi Road, Fort, Bombay 1.

Hind Industrial & Mercantile Corpn. Pvt. Ltd., 27, M. Parmanand Marg, Bombay 4.

Hind Musafir Agency, Khorshed Bldg., Sir P. M. Road, Bombay 1.

Hind Razor & Blade Co. Pvt. Ltd., 215, A. Besant Road, Bombay 18.

Hind Rectifiers Ltd., Lake Road, Bhandup, Bombay 78.

Hindeo Lighting Industries Ltd., Subhas Nagar, Off Caves Road, Bombay 60.

"Hindu, The," Kasturi Buildings, Jamshedji Tata Road, Bombay 20.

Hindustan Brown Boveri Ltd., Brown Boveri House, Dr. A. Besant Road, Bombay-25.

Hindustan Cashew Products Pvt. Ltd., 129, Kazi Syed Street, Bombay 3.

Hindustan Conductors Pvt. Ltd., 24, Brelvi Syed Abdulla Road, Bombay 1.

Hindustan Construction Co. Ltd., Construction House, Ballard Estate, Bombay 1.

Hindustan Export & Import Corporation Pvt. Ltd., Anand Bhavan, Dr. Dadabhoy Naoroji Road, Bombay 1.

Hindustan Ferodo Ltd., Bombay-Agra Road, Ghatkopar, Bombay 77 AS.

Hindustan Klockner Switchgear Ltd., Prospect Chambers, 317/21, Dr. D. Naoroji Road, Bombay 1.

Hindustan Lever Ltd., Hindustan Lever House, Backbay Reclamation, Bombay 20.

Hindustan Mineral Products Co. Pvt. Ltd., 111, Industrial Area, Sion, Bombay 22.

## HFH

TYRE PRESSURE GAUGES
POCKET & MASTER

and
WALL GAUGE
(For Service Station)



AUTOMOBILE WATER PUMP ASSEMBLIES REPAIR KITS and

FRONT SUSPENSION PARTS for popular vehicles

Manufacturers Exporters of Auto Parts and Garage Equipment.

#### H. F. HIGGINS (EASTERN) PVT. LTD.

Janmabhoomi Chambers, Opp. Alexandra Dock, Fort Street, Bombay I. P. Box 1548.

Phone: 261789. Grams: "HEASTERN"

## HINDUSTAN EXPORT & IMPORT CORPORATION PVT. LTD.

Registered Office:

Anand Bhavan, Dr. Dadabhoy Naoroji Road, Bombay I. Post Box No. 1091. Phone : 253885 (3 lines).

Grams: "Hindexport". Bombay: Telex: 2748 Bombay, India.

Answer Back Code HEI 0112748.

Branch Offices:

Grover Mansions, 3/17, Asaf Ali Road, New Delhi. (Phone: 272967). Grams: "HINDEXPORT", New Delhi.

Suit No. 2, 7 Circus Avenue, Calcutta 17. (Phone: 448005). Grams: "HINDEXPORT", Calcutta.

Resident Engineers:

74, Victoria Road Layout, 1st Floor, Bangalore 17.

Post Box No. 2902, Mylapore, Madras 4.

Resident Representative :

At Hyderabad, Poona, Jabalpur and Kanpur.

Managing Director: Kanwal K. Grover.

Importers and Sole Agents of many reputed manufacturers of Machine Tools in Western Europe, U.S.A., Japan, Australia and for HMT-Pegard horizontal boring & milling machines.

Exporters of Grey and Processed Cotton Yarn and Textiles.

Hindustan Pencils Pvt. Ltd., 111/112, Himalaya House, 79, Palton Road, Bombay 1.

Hindustan Precision Instruments (Pvt.) Ltd., Mistry Mansion, Mahatma Gandhi Road, Bombay 1.

Hindustan Tractors & Bulldozers Ltd., Construction House, Ballard Estate, Fort, Bombay 1.

Hindustan Transmission Products, Chandivali, Kurla Vihar Road, Bombay 72.

Hoare Miller & Co. Ltd., "Readymoney Terrace", Dr. Annie Besant Road, Worli, Bombay 18.

Hoechst Dyes & Chemicals Ltd., Dugal House, Vir Nariman Road, Bombay 20.

Hooseinbhoy A. Lalljee Sons & Co., Navsari Bldg., Dadabhoy Naoroji Road, Bombay 1.

Humphreys & Glasgow (Overseas) Ltd., Gammon House, Cadell Road, Prabhadevi, Bombay 25.

Hydro (Engineers) Pvt. Ltd., 19, Matar Pakhadi Road, Mazagaon, Bombay 10.

Hyderabad Allwyn Metal Works Ltd., Shastri Marg, Bombay 78.

Ibcon Pvt. Ltd., Adelphi House, 119, Maharshi Karve Road, Bombay 20.

IBI Pvt. Ltd., S-86, Andheri-Kurla Road, Marol Naka, Bombay 59.

IBM World Trade Corporation, Vulcan Ins. Bldg., Nariman Road, Bombay 20.

I.C.I. (India) Pvt. Ltd., 'Crescent House', 18, Wittet Road, Ballard Estate, Bombay 1.

Imanes Pvt. Ltd., 94, S. V. Road, Bombay 56.

Imex India Corporation, 1-A, Dar-ul-Muluk, Harvey Road, Gamdevi, Bombay 7.

## INDIAN VEGETABLE PRODUCTS LIMITED

Manufacturers of Vanaspati, Refined Oils, Hydrogenated Technical Oils, Epoxy Plasticizers, Organic Esters, Peroxides and Acid Chlorides & Foundry Products.

Board of Directors :

F. H. Kemple, Esq. (Chairman)
Mathuradas Devidas Madhowji, Esq.
K. M. Antia, Esq.
Prahlad C. Mehta, Esq.
Russi Jal Taraporevala, Esq.
G. Khandwala, Esq.
M. A. Wadud, Esq.

Managing Director: G. Khandwala, Esq.

Manager: T. Ranganathan, Esq.

Factory: Arched Bungalow Road, Ghorupdeo, Bombay-33.

Telegraphic Address: "YESTERMORN".
Factory Telephone Nos.: 379611-2-3.
Office Telephone No.: 268081 (10 lines).

## THE INDIAN TOOL MANUFACTURERS LTD.

101, Sion Road, Bombay 22.

Phones: 472481-5.

Grams: "ITOOLS", Bombay, Sion.

Telex: 011-2431.



Manufacturers of: Small Tools, particularly Twist Drills, Reamers, Cutters, Taps and Micrometers.

Imperial Surgical Co. Private Ltd., "India House", Opp. G.P.O., Fort, Bombay 1.

Impex (India) Ltd., J. K. Building, Ballard Estate, Bombay 1.

Impex Tube Mfg. Co. Pvt. Ltd., 5, Alli Chambers, Tamarind Lane, Bombay 1.

Importers & Exporters Pvt. Ltd., 9, Forbes Street, Fort, Bombay 1.

Indabrator Ltd., NSE Estate, Goregaon East, Bombay 63. India Carat Pvt. Ltd., 7, Jamshedji Tata Road, Bombay 20.

India Crown Cork Co. Ltd., L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

India Reinsurance Corpn. Ltd., Industrial Assurance Bldg., Opp. Churchgate Station, Bombay 20.

India Tobacco Co. Ltd., Royal Insurance Bldg., J. Tata Road, Bombay 20.

India Tube Mills & Metal Industries Pvt. Ltd., 126,Narayan Dhuru Street, Bombay 3.Indian Aluminium Co. Ltd., Air India Bldg., Nariman

Indian Aluminium Co. Ltd., Air India Bldg., Nariman Point, Bombay 1.

Indian Cable Company Limited, Esplanade House, Waudby Road, Bombay-1.

Indian Commercial Co. Private Ltd., 7, Jamshedji Tata Road, Bombay 20.

Indian Duck Marbles Pvt. Ltd., Vivekananda Road, Bombay 60.

Indian Dyestuff Industries Ltd., Mafatlal House, Backbay Reclamation, Bombay 20.

Indian Extractions Pvt. Ltd., 18, St. Xavier Street, Bombay 5.

Indian Flexible Tube Mfg. Co. Pvt. Ltd., 16, Apollo Street, Bombay 1.

#### INDOKEM PVT. LTD.

221, Dadabhoy Naoroji Road, Bombay I. P.O. Box 832.

Telegraphic Address: "INDOKEM".

Phones: 265151/5.

Telex: 011-2942.

#### Distributors:

Dyes, Chemicals, Pigments, Synthetic Resins, Textile Auxiliaries, Menthol and Adhesives, Electroplating Plants & Chemicals etc.

#### Manufactured by:

Indian Dyestuff Industries Ltd.
Colour-Chem Limited.
Aniline Dyestuffs & Pharmaceuticals (P) Limited.
Cellulose Products of India Limited.
Dai-ichi Karkaria Private Limited.
Bhavana Chemicals Limited.
Duro Metochem Private Ltd.
Grauer & Weil (India) Limited.

Standard Mills (Chemicals Div.), National Chemical Industries etc.

#### INDABRATOR LTD.

NSE Estate, Goregaon (East), Bombay 63.

#### Manufacturers of :

All types and sizes of Airless Centrifugal
Wheelabrator & Compressed Air type Shot Blasting,
Dust and Fume Control Equipment.

#### In association with:

The Wheelabrator Corporation, USA, Tilghman Wheelabrator Limited, UK, and New Standard Engg.

Co. Ltd., India.

Phones: 691237 & 693876.

Grams: "SHOTBLAST", Bombay, Goregaon.

Indian Furnace Co., Private Ltd., 12A, Dr. Annie Besant Road, Worli, Bombay 18.

Indian Gum Industries Pvt. Ltd., 157, P. D'Mello Road, Bombay 1.

Indian Hardware Industries Ltd., 15-A, Horniman Circle, Bombay 1.

Indian Hotels Co., Ltd., Bombay House, 24, Bruce Street, Fort, Bombay 1.

Indian Iron & Steel Co. Ltd., Esplanade House, Waudby Road, Bombay 1 BR.

Indian Link Chain Mfrs. Ltd., L. B. Shastri Marg, Bhandup, Bombay 78.

Indian National Press (Bombay) Pvt. Ltd., 21, Dalal Street, Bombay 1.

Indian Oil Corporation Ltd., 254-C, Dr. Annie Besant Road, Bombay 25.

Indian Optical & Appliances Co., J. B. Metal Industries Bldg., Saki Vihar Lake Road, Bombay 72.

Indian Optical Industries Ltd., Sastri Marg, Bombay 78. Indian Oxygen Ltd., Lal Bahadur Shastri Marg,

Indian Oxygen Ltd., Lal Bahadur Shastri Marg Bombay 77.

Indian Rare Earths Ltd., 111, Karve Road, Bombay-20.Indian Smelting & Refining Co. Ltd., Bhandup, Bombay 78 NB.

Indian Standard Metal Co. Ltd., I. S. M. Estate, Chinchpokli Cross Line, Bombay 27.

Indian Textile Journal Pvt. Ltd., "Surya Mahal", Military Square, Fort, Bombay 1.

Indian Tool Manufacturers Ltd., 101, Sion Road, Bombay 22.



## IMKEMEX INDIA LIMITED

Export Agents for products manufactured by ICI (India) and Associated Companies as well as other chemical manufacturers.

Agency House for domestic marketing of imported and locally made chemical raw materials for industry.

#### RANGE OF PRODUCTS

#### (a) Exports:

Polyester Fabrics, Dyestuffs, Paints, Rubber Chemicals, Polythene, Insecticides, Explosives, Textile Auxiliaries, Industrial Chemicals.

#### (b) Imports and Agency Portfolio:

Chemicals — heavy and fine; Organic and Inorganic Dyestuffs, Textile Bleaching Agents, Insecticides, Pesticides, Fungicides, Plastics, Nonferrous Metals, Water Treatment Chemicals and Pharmaceuticals.

#### **ADDRESSES**

Registered & Head Office:

Address: P.O. Box No. 148, 34, Chowringhee, Calcutta-16.

Telegram : KEMEXIND, Calcutta.

Telephone: 248111 (18 lines). Auto-Telex Number: Roundel Ca 620.

#### BRANCHES

#### Calcutta:

Address: P.O. Box No. 2596, 18, Strand Road,

Calcutta-1.

Telegram: IMKEMIND, Calcutta.

Telephone: 22-2361.

#### Bombay:

Address: P.O. Box 287, Crescent House, 19, Walchand

Hirachand Marg, Bombay-1. Telegram: KEMEXBOM, Bombay.

Telephone: 26-8051.

Auto-Telex Number: 011-663 ICI Dyes Bombay.

#### Madras:

Address: P.O. Box No. 2034, 378, Netaji Subhas Road,

Madras-1.

Telegram: KEMEXIND, Madras.

Telephone: 29351.

Auto-Telex Number : Alkali MS 041231.

#### Delhi

Address: Hamilton House, Connaught Place, New Delhi.

Telegram: KEMEXIND, New Delhi.

Telephone: 43154.

Auto-Telex Number: Kemix Del 031456.



## THE INDIAN HUME PIPE CO., LTD.

Registered Office:

Construction House, Walchand Hirachand Marg, Ballard Estate, Bombay I.

Telex No. 011 - 2780

Telephone No. 268091 (13 Lines)

Telegram: 'HUMEPIPE', Bombay.

Largest manufacturers in India of R. C. C. Pipes known as 'HUME PIPES' and allied products, HUME STEEL Pipes, WELDED STEEL Pipes and STEEL PENSTOCKS, PRESTRESSED CONCRETE Pipes and POLES, R. C. C. POLES, NO-JOINT CONCRETE Pipes Cast-in-Situ and PRESTRESSED CONCRETE SLEEPERS for Railways, etc. etc.

HUME PIPES: Extensively used for Water Supply, Sewerage, Drainage, Irrigation, Culverts, Well-Sinking etc.

ALLIED PRODUCTS: Concrete Half Rounds, One-third Round Channels, R. C. C. Septic Tanks, Dust Bins, Sentry Cabins, Telephone booths, Housing for Latrines, Policeman Cabins, Cattle-Troughs, Pillars, etc. Also R.C.C. Piles and ventilating shafts.

HUME STEEL PIPES: Hume Steel Shells Lined and Outcoated with cement concrete are known as Hume Steel Pipes and are exclusively used as High Pressure Mains for Water Supply Projects.

WELDED STEEL PIPES: Extensively used for Gas mains, Tunnelling etc., and also for high pressure Water mains. At Pogaon, near Kalyan, 2,500 to 3,650 mm diameter steel pipes are being fabricated and supplied for Upper Vaitarna Water Supply Scheme, Bombay Municipal Corporation. Total quantity of steel plates required is about 45,000 tonnes for this work.

STEEL PENSTOCKS: Pioneers in the manufacture of Steel Penstocks for Hydro Electric Projects; Penstocks varying in diameters from 600 mm to 5,500 mm in thicknesses of 10 mm to 56 mm are supplied by this Organisation for following important schemes using various types of steel such as Mild Steel, High Tensile Steel, extra high tensile steel quenched and tapered.

Papanasam Hydro Electric Scheme, Madras, Mahatma Gandhi Hydro Electric Project, Mysore, The Moyar Hydro Electric Scheme, Madras, Rihand Hydro Electmic Project, U.P., Koyna Hydro Electric Project, Maharashtra, Sharavati Valley Hydro Electric Project, Mysore and many others.

Penstock factory at Hadapsar (Poona) is fully equipped with the latest machinery to meet the increasing needs of Penstocks in the country. From this central factory, the Company have supplied over 30,000 tonnes of Steel Penstocks for the above schemes and also for Balimela Hydro Electric Project in Orissa State,

Chenani Hydro Electric Projects in Jammu-Kashmir State and Pressure Shaft Lining of Koyna Stage III Works, Yamuna Steel Lining Work, U.P. State, which are at present in progress.

IHP Prestressed Pipes are built with compressed concrete for greater strength, to bear internal pressures and to withstand external ones. In the Prestressed Pipe process, High tensile steel wire, under controlled tension, is wound around a core pipe of concrete, thus inducing a designed circumferential precompression in the concrete core pipe. The core pipe is precompressed longitudinally by high tensile steel wires. This method of construction, pioneered in Australia by Rocla, is now used over a very wide range of pipe diameters and design pressures. Rocla Prestressed Pipe processes are widely used by major overseas manufacturers. Since 1945, more than 160 kms, of pipes are in service in Australia. In India, IHP has so far supplied about 150 kms. of these pipes.

NO-JOINT CONCRETE PIPES: The Company have the patent rights for the NO-JOINT Concrete Pipes cast-in-situ. To complete storm water or sewerage schemes with standard non-pressure pipes, a long period is required as it involves manufacturing, curing, transporting and then laying. No-Joint Concrete Pipes are machine cast-in-situ in ready trenches and thus eliminates 3 of the 4 operations. This speeds up the work considerably with a saving in time and cost.

PRESTRESSED CONCRETE POLES: These Poles are manufactured for Transmission lines both for High Tension and Low Tension lines. R.C.C. Poles also are manufactured and are largely used as Lamp Posts in all the cities.

IHP PRESTRESSED CONCRETE SLEEPERS: Recently at Karari near Jhansi, the Company has erected up-to-date Plant for the manufacture of mono-block Concrete Sleepers required by Indian Railways. They are heavier than wooden or C. I. sleepers giving greater stability and strength, no warping, non-conducive to vegetable growth, impervious to weather condition, they will provide a permanent way for smooth running with better speed and in the long run will be economical.

The Company has a large network of about 60 factories all over India, two in Ceylon, and one at Benghazi (Libya).

### I. C. I. (INDIA) PRIVATE LTD.

#### Manufacturers of:

Auxiliary Products for Textile, Paper, Leather & Misc. industries.

Suppliers of Dyestuffs and Processing Products for the textile industry, Alkalis, Mineral and Organic Salts, Emulsifying Agents, Organic & Inorganic Chemicals, Catalysts, Heat Treatment Furnaces and Salts, Metal Degreasing Plants, 'Alkathene' Film, Pipes and Fittings, Plastics, Rubber Colours and Fillers, Polyurethane Chemicals, Silicones.

#### Regd. & Head Office for India:

34, Chowringhee, Calcutta-16.
Telegraphic Address: "IMPKEMIX",
Calcutta.

G.P.O. Box No. 182, Calcutta-1. Phone: 24-8111 (18 lines).

#### Head Office for Dyes:

'Crescent House', Walchand Hirachand Marg, Post Box No. 287, Ballard Estate, Bombay-1. Phone: 268051.

Auto-Telex: 011-2663 ICIDYES. Grams: "ICIDYES", Bombay.

Tech. Service Laboratory (Dyes), Fosbery Road, Sewree, Bombay.
Phone: 373691.

#### Branches:

Calcutta: Post Box No. 334. Phone: 222361.

Grams: "ALKALI"

Bombay: Post Box No. 310. Phone: 268051.

Grams: "ALKALI"

Madras: Post Box No. 130. Phone: 29351.

Grams: "ALKALI".

Delhi : Post Box No. 107, New Delhi.

Phone: 43154.

Grams: "IMPKEMIX", Delhi.

## THE ALKALI AND CHEMICAL CORPORATION OF INDIA LIMITED

Manufacturers and Suppliers of

Liquid Chlorine

Caustic Soda Liquor

Acid Hydrochloric

'Alkathene' brand Polythene Granules and Compounds

**Rubber Chemicals** 

Paints & Pretreatment Chemicals

Water Treatment Chemicals

Pesticides & Organic Fungicides

**Descaling Compound** 

Pharmaceutical, Ethical & Veterinary Products

Soot Eradicator.

#### Regd. & Head Office:

18, Strand Road, Calcutta 1.
Grams: "KEMICORP", Calcutta-1.
Phone: 22-2361.

#### Sales Offices:

- (1) Bombay: Post Box No. 310, Bombay I. Grams: "ALKALI", Bombay I. Phone: 26-8051.
- (2) Delhi: Post Box No. 107, New Delhi-I. Grams: "KEMICORP", New Delhi-I. Phone: 43154.
- (3) Post Box No. 130, Madras-1. Grams: "KEMICORP", Madras-1. Phone: 29351.
- (4) Calcutta: P.O. Box No. 467, Calcutta-I. Grams: "KEMICORP", Calcutta-I. Phone: 222361.



Indian Tube Co. Ltd., 18, Fosbery Road, Bombay 33.
Indian Vegetable Products Ltd., Connaught Circle Road, Bombay 33.

Indmag Pvt. Ltd., Corinthian, 17, Off Arthur Bunder Road, Colaba, Bombay 5.

Indo Berolina Industries Pvt. Ltd., I.B.I. House, 8-86, Andheri-Kurla Road, Near Marol Naka, Bombay 59.

Indo-Continental Rayons & Fabrics Pvt. Ltd., 32, Veer Nariman Road, Bombay 1.

Indo-French Time Industries Ltd., Udyog Nagar, Vivekananda Marg, Bombay 62.

Indo-Universal Engineering Co. Pvt. Ltd., Shanti Niketan, Netaji Subhas Road, Bombay 2.

Indokem Private Ltd.—221, Dadabhoy Naoroji Road, Bombay-1.

Industrial & Agricultural Eng. Co. (Bombay) Pvt. Ltd., 43, Forbes Street, Fort, Bombay 1.

Industrial Equipment Mfg. Co., Kasturchand Mills Estate, Bhavanishankar Road, Bombay 28.

Industrial Gases Ltd., Sind Seva Samati Nagar, Sion-Koliwada, Bombay 22.

Industrial Linings, 547, Kalbadevi Road, Bombay 2. Industrial Mfg. Co., 158, K. M. Sharma Marg, Bombay 2.

Industrial Minerals & Chemical Co. Pvt. Ltd., 125, Narayan Dhuru Street, Nagdevi, Bombay 3.

Industrial Perfumes Ltd., Army & Navy Building, Mahatma Gandhi Road, Bombay 1.

Insulations & Polymers Pvt. Ltd., East & West Insurance Bldg., 49-55, Apollo Street, Bombay 1.

Interlink Traders Pvt. Ltd., 121, Yusuf Meheralli Road, Gaya Bldg., Bombay 3.

## INDIAN COMMERCIAL CO. PRIVATE LTD.

7, Jamshedji Tata Road, BOMBAY.

Phones : { 293779 293745

Grams: "INDCOM".

Sole Selling Agents for:
\*POLYCHEM LTD.

Exporters:

Cotton, Cotton Textiles, Oilseeds, Oilcakes, PVC Leather Cloth, etc.

Importers:

Industrial Chemical Raw Materials required for Chemical, Pharmaceutical, Paint, Dyestuffs and various other Industries; Represent Dow International Inc. U.S.A., Porudctol U.S.A., Grefco Inc. U.S.A., Pure Chemicals Ltd., U.K.

International Computers & Tabulators (India) Pvt. Ltd., Magnet House, Dougal Road, Bombay 1.

International Equipment Corpn. Pyt. Ltd., Prospect Chambers, Dr. D. N. Road, Bombay 1.

International Fisheries Ltd., 169/170, B.P.T. Building, Sasoon Dock, Colaba, Bombay 5.

International General Electric Co. (India) Private Ltd., Dubash Chambers, Kumpta Street, Bombay 1.

International Lubricants Pvt. Ltd., Court House, Dhobi Talao, Bombay 2.

International Tractor Co. of India Ltd., Gateway Bldg., Apollo Bunder, Bombay 1.

Investa Machine Tool & Industrial Corporation Ltd., Ewart House, Bruce Street, Fort, Bombay 1.

Ion Exchange (I) Ltd., Tiecicon House, Dr. E. Moses Road, Bombay 11.

Iron & Metal Traders Pvt. Ltd., Off Magazine Street, Bombay 10.

Iscomed Industries Pvt. Ltd., Shastri Marg, Bombay 80. Ishwar Industries Ltd., 11, Bank Street, Bombay 1.

Italab Pvt. Ltd., 15, Cawasji Patel Street, Bombay 1.

J. & P. Coats (I) P. Ltd., 81, Palton Road, Bombay 1.
Jaico Publishing House, 125, Mahatma Gandhi Road,

Bell Lane, Bombay 1.

Jaipur Metals and Electricals Ltd., Kamani Chambers,
Nicol Road, Ballard Estate, Bombay 1 (BR).

Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

Jairamdas Udyog Private Ltd., 157, Narain Dhuru Street,
Bombay 3.

"Jam-E-Jamshed", Ballard House, Mangalore Street, Fort, Bombay 1.

## JAIPUR METALS & ELECTRICALS LTD.

Kamani Chambers, Nicol Road, Ballard Estate, Bombay-I (BR). Phone: 268261.

Manufacturers of :

Arsenical Copper Rods, Cadmium Copper Rods, Copper and Cadmium Stranded Conductors, Copper Rolled Rods, Hard-Drawn Copper Wires and Strips, Cadmium Copper Wires, Bright Enamelled Copper Wires, Tinned Copper Wires, Polyester-Base Synthetic Enamelled Copper Wires and Strips, A.A.C. and A.C.S.R. and House Service Meters.

Head Office :

Near Railway Station, Jaipur.

Phones: 7425! and 72089.

#### J. & P. COATS (INDIA) PVT. LTD.

"THE THREAD MAKERS" Head Office: Koratti, Kerala.

Manufacturers of all varieties of cotton and synthetic threads and Knitting Cotton and Selling Agents for Knitting Wools and Knitting Pins.

: 81, Palton Road, P.O. Box No. 280. Bombay

Phones: 265591-2-3.

: Garstin Bastion Road, P.O. Box No. 1091. Delhi

Phones: 263871 & 263872.

: 16/71, A-5, Civil Lines, P.O. Box No. 112. Kanpur Phone: 60968.

: 27, Free School Street, P.O. Box No.2725. Calcutta Phones: 24-5007 & 24-4572.

· Mahatma Gandhi Road, P.O. Box No. 40. Gauhati

Phone: 4683.

: "ANCHOR HOUSE", 191, Anna Pillai Madras

Street, P.O. Box No. 273.

Phone: 23158.

Hyderabad: 1-5-4, Bakaram, Hyderabad 20.

Phone: 73593.

Bangalore : No. 66, Gayatri Devi Park Extension,

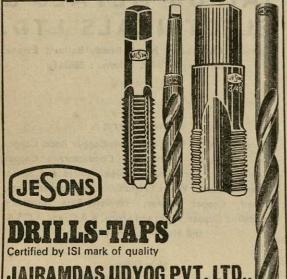
Vyalikaval Main Road, Bashyam Circle, P.O. Box No. 158, G.P.O.

Phone: 71634.

: Sales Dept., Koratti, Kerala. Koratti

Phone: Chalakudi 62 & 64.

Telegraphic Address for all branches: "SIXCORD" Registered Office: 81, Palton Road, Bombay 1.



**JAIRAMDAS UDYOG PV** 

157/159, Narain Dhuru Street, Bombay-3.

Phone: 323616 Telex: 011-3400 Grams: Jairamsons.

Bangalore . Delhi . Madras . Secunderabad Factory: 8th Mile, Mysore Road, Bangalore.

#### JOHN FOWLER (INDIA) LTD.

Regd. Office:

Marshalls Building, Ballard Road, Fort, Bombay I.

Branch Office & Factories at :

136A, Rash Behari Avenue, Calcutta 29 and Sarjapur Road, Post Box No. 57, Bangalore-I. Sole Selling Concessionaires for VOKES LTD., Guildford, England, Mfrs. of 'VOKES' Filtration equipments, STREAM-LINE FILTERS LTD., Mfrs. of Streamline Filters and Filter Water Separators and VOKES-CARDWELL

LTD., Mfrs. of Tobacco Machinery.

Board of Directors:

Managing Director: F. C. Kraty.

Directors: N. W. Keyworth, P. R. Deshpande, A. E. Queening, T. Subbha Rao, A. S. Lakshmanan and

K. A. Ramchar.

Assistant : A. J. Dias.

Telegrams: "TRACTION".

Telephone: 26-3059.

P.O. Box No. 654, Bombay 1.

#### **IASHVANT C. SHAH & CO.**

Manufacturers' Representatives India's Foremost Indenting House.

We are Sole Agents in India for the following World Famous

B. R. A. Verona, Italy. Mfrs. of Automatic Machinery for Marble and Granite Cutting, Sawing & Polishing.

DIEHL, Uhrenfabrik Stenphanstrasse 49, 8500 Nuremberg-2, West Germany. Manufacturers of Electric Cooking Range Timers, Programme Switches, Time Switches etc.

ED. HARTMANN, Schornbach, Bei Schorndorf/Wurtt, West Germany. Manufacturers of Micro Switches, Float Switches & Room Thermostats.

ENRICO-LONGINOTTI, Firenze, Italy. Manufacturers of automatic machinery for manufacturing Marble & Mosaic Tiles.

SAMIC S.P.A. - Firenze, Italy. Continuous Turbine Mixers and Grouting Machines for Flooring Tiles

STECOMÉR, Milano, Italy. Mfrs. of Automatic Machinery for making Concrete Blocks.

FUCHS-MUHLEN, Maschinenfabrik Maximillian Fuchs & Co., Wien, Westbahnstrasse 27-29 Vienna VII/62 Austria.

Manufacturers of Electrical & Mechanical Machinery. JULIUS BAUSER, Empfingen, B. Horb., West Germany. Manufacturers of operating hour meters & watchman's

control clocks. Address: Bharati Nivas, Block No. 6, 1st floor, Besant Road, Santa Cruz (West), Bombay 54.

Phone: 359710 & C/o 317587. Grams: "OTCASNART".



### J. B. ADVANI & COMPANY PRIVATE LIMITED

Registered & Head Office:

Advani Chambers, Top Floor, Sir Phirozshah Mehta Road, P. O. Box 687, Fort, Bombay 1. Telephone: 260031 (5 lines). Telegrams: BONDPAPER, Bombay. Telex: 2940 (JBA CO).

Branches: ● Bombay: Advani Chambers, Top Floor, Sir Phirozshah Mehta Road, P. O. Box 687, Fort, Bombay-I. ● Cochin: Sebrof House, Willingdon Island, Cochin-3. ● New Delhi: Bhandari House, 4/24A, Asaf Ali Road, New Delhi-1. ● Madras: Batliboi House, 98-A, Armenian Street, Madras-I. ● Jullundur: Railway Road, Jullundur City.

#### SUBSIDIARY COMPANY:

Advani-Oerlikon Private Limited, Radia House, 6, Rampart Row, Fort, Bombay-1.

#### Sister Concerns:

J. B. A. Printing Inks Private Limited, Shastri Marg, Bhandup, Bombay-78. Ideal Wrappers Private Limited, Shastri Marg, Bhandup, Bombay-78.

#### ASSOCIATE COMPANY:

J. B. Advani & Co. (Mysore) Private Limited, Silver Jubilee Park Road, Bangalore-2.

#### Bankers:

THE CHARTERED BANK.
ALLAHABAD BANK.

BUSINESS ACTIVITIES :-

#### Distributors:

Advani Oerlikon Private Limited, Shree Gopal Paper Mills Limited, Ballarpur Paper & Straw Board Mills Limited.

#### Sole Distributors in India for:

Raj Straw Board Factory.

#### Agents for:

Reputed Precision Machine Tools from European countries. Sole representatives of Swiss, German, French & U. K. Principals for Precision Machine Tools.

#### Indentors for:

Ferro Alloys, Ferrous & Non-Ferrous Metals and Semi-products, Iron, Steel & Steel products. Sole representatives of London & Scandinavian Metallurgical Co. Ltd., London, U. K. and their associates in U. S. A., France, West Germany, Sweden & Japan.

#### Importers of:

Czechoslovakian make Welding & High Frequency Heating equipments.

#### Exporters of:

Tea, Coffee, Textiles, Sea-foods, Spices, PVC Laminates and Precious & Semi-Precious Stones.

Started in the year 1908 J. B. ADVANI & CO. with headquarters at Karachi commenced its business with importing all types of Paper & Printing materials.

1908 to 1947: JBA well-established itself as a major Import House for Paper and opened branches at Bombay, Lahore, Madras, Delhi, Cochin, Jullundur and Calcutta.

1948 to 1952: Consequent upon changes in the countries condition, a new phase of planning evolved matching with the country's Industrial and Economic Policy. JBA for the first time entered in the field of export of Tea, Coffee and Textiles and earned valuable foreign exchange for the country.

With the advent of 5-year plans JBA geared up its activities to web and form a core of the nation's development programmes by establishing (i) J. B. A. PRINTING INKS PRIVATE LTD., for manufacture of Inks and Varnishes with efficient technical know-how supplied by Messrs. Lorrileux & Bolton, London, (ii) ADVANI OERLIKON PRIVATE LTD., for manufacture of Arc-Welding Electrodes to satisfy needs of growing Steel Fabrication Industry in collaboration with famous Oerlikon Machine Tools (Messrs. Buehrle & Co.), Zurich, Switzerland and (iii) IDEAL WRAPPERS PRIVATE LTD., for manufacture of Drinking Straws and Water Proof Kraft Paper.

1953 to 1968: JBA took distributorship of SHREE GOPAL PAPER MILLS LTD. and BALLARPUR PAPER & STRAW BOARD MILLS LTD., manufacturers of various types of paper for quality as well as ordinary printing.

During this period JBA established one more wing viz., FERRO ALLOYS & METALS DIVISION. Through this new department we serve customers by helping them in importing Ferro Alloy's and Steel products from our world-wide source at competitive rates.

1969: JBA were appointed sole selling agents for the products STRAW BOARD manufactured by RAJ STRAW BOARD FACTORY, DHAR (M. P.).

The Company also added a new wing of export of non-traditional items i.e., export of Sea-food late in 1969 and it has established in this product very quickly.

#### Directors:

Shri B. J. Advani.

Shri D. J. Lalvani.

Shri G. H. Malkani.

Shri I. T. Mirchandani.

Shri T. L. Malkani.

Smt. Rami B. Advani (Hony.).

#### **ENGINEERS & CONTRACTORS**

## JASH ENGINEERING INDUSTRIES

Industrial Estate, Pologround, Indore-3 (M.P.).

#### Manufacturers:

#### \* PRECISION SURFACE EQUIPMENT

for Layout, Tooling and Inspection like:

C.I. & Granite Surface plates & Tables, C.I. Marking plates and Tables, Floor plates, Bed plates, Angle plates, Straight Edges, Tilting Tables, Box Tables, etc.

#### \* WATER CONTROL EQUIPMENT

for Irrigation, Flood Control, Sewage and Water treatment plants and Industrial Installations like:

C.I. & M.S. Sluice gates, Penstock gates, Flap gates, Regulator gates, Stop Log gates, etc.

#### \* GREY IRON CASTINGS

High Grade C.I. Castings upto 10 TONNES EACH; Machine Moulded Castings; Shell Moulded Castings.

#### \* SPECIFIC JOB ORDERS

Involving Castings, Fabrication, Stress relieving machining etc. to customers' specifications.

Phone: 34081.

Cable: JASH.

Jayanand Khira & Co. Pvt. Ltd., Khira Bhavan, Sandhurst Bridge, Bombay 7.

Jayant Colour & Chemical Industries, Gupta Mills Estate, Darukhana, Reay Road, Bombay 10.

 Jayant Metal Mfg. Co., 924A, Sayani Road, Bombay 28.
 Jayems Engineering Co., Great Western Bldg., 1st Floor, 130-132, Apollo Street, Fort, Bombay 1.

J. B. A. Printing Inks Private Ltd., Shastri Marg, Bombay 78.

J. B. Advani & Co. Pvt. Ltd., Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay 1.

J. B. Mangaram & Co., 12, Gunbow Street, Bombay 1.

Jeena & Co., 10, Veer Nariman Road, Bombay 1.

Jeewanlal (1929) Ltd., Liberty Building, Marine Lines, Bombay 20.

Jhaveri Bros. & Co., Private Ltd., 345, Abdul Rehman Street, Bombay 3 (BR).

J. K. Engineers' Files, P. O. Jekegram, Thana.

John Fowler (India) Ltd., Marshall Building, Ballard Road, Fort, Bombay 1.

John T. Hardaker (India) Pvt. Ltd., Fergusson Road, Lower Parel, Bombay 13.

John Thompson (I) P. Ltd., Great Social Bldg., Sir P. M. Road, Bombay 1.

John Wyeth & Brothers Ltd., Steelcrete House, Dinshaw Wacha Road, Bombay 20.

Jhaveri Thanawala Pvt. Ltd., 47, Tamarind Lane, Bombay-1.

Johnson & Johnson of India Ltd., 30, Forjett Street, Bombay 26.

Jolly Brothers Pvt. Ltd., Lakshmi Ins. Bldg., Sir P. M. Road, Bombay 1.

Joseph Leslie & Co., 105, Apollo Street, Bombay 1.

Jost's Engineering Co. Ltd., 60, Sir Phirozshah Mehta Road, Bombay I.

Jostle Trading Corporation Private Ltd., Maskati Mahal, Lohar Chawl, Bombay 2.

J. V. Gokal & Co. Pvt. Ltd., Kasturi Buildings, Jamshedji Tata Road, Bombay 20.

K. C. A. Pvt. Ltd., Rang Udyan, Sitladevi Temple Road, Mahim, Bombay 16.

K. Mahadev & Co., Pvt. Ltd., Dutt Mandir Road, Bhandup, Bombay 78 NB.

K. R. Irani & Co., 24, Dalal Street, Bombay 1.

K. S. Diesels Pvt. Ltd., Bombay Mutual Chambers, 91/21, Hamam Street, Fort, Bombay 1.

K. T. Steel Industries Pvt. Ltd., K. T. Bldg., Broach Street, Bombay 9.

Kamani Brothers Pvt. Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay I BR.

Kamani Metals & Alloys Ltd., Kamani Chambers, Ballard Estate, Bombay 1 BR.

Kamdar Private Ltd., Industrial Building, opp. Churchgate Station, Bombay 20.

Karimjee Trading Co. Pvt. Ltd., Rahimtoola House, 7, Homji Street, Fort, Bombay 1.

Kashandas Pvt. Ltd., 43, Tamarind Lane, Fort, Bombay 1.

Kashimira Ceramic Products Pvt. Ltd., Ghod Bunder Road, Village Mira, Bombay 68.

Kaycee Industries Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1.

## KAMANI ENGINEERING CORPORATION LTD.

**ENGINEERS** 

Kamani Chambers, Nicol Road, Ballard Estate, Bombay I BR

Phone: 268261

100

Factory & Sales Office:

Lal Bahadur Shastri Marg, Kurla, Bombay 70 (AS)

Phone: 555561

Manufacturers of
Sheets, Strips and Coils, Zinc Oxide, Red Lead
Litharge, Non-Ferrous Tubes, Rods and Sections.

# KAMANI METALS & ALLOYS LTD.

Kamani Tubes Pvt. Ltd.

Kamani Metallic Oxides Pvt. Ltd.

United India Bldg., F Block, Connaught Place, New Delhi-I Phone: 45055

### KODAK LIMITED

(Incorporated in England with limited liability)

Distributors of Photographic Materials

\*

Kodak House, Dr. Dadabhai Naoroji Road, Fort, Bombay-I-BR.

Phone: 262604.

17, Park Street, Calcutta-16.

33/34, Netaji Subhas Marg, Daryagunj, Delhi-6.

150B, Mount Road, Madras 2.

Tel. Add .: "Kodak."

#### KORES (INDIA) LIMITED

Manufacturers of:

Carbon Papers, Typewriter Ribbons, Duplicating Stencils, Duplicating Inks, Printing Ink, Stamp Pads, Ink Tablets, Fountain Pen Inks, Staplers, Scal-O-Tape & Dispensers, Flash Dry Marker, Tap & Spread Stamp Pad Ink, Kores E-Z, Plastic Cover Files, Tele-Printer & Adding Machine Rolls.

Administrative Office & Factory : Ist Pokhran Road, Thana (Maharashtra)

Chairman & Managing Director: S. K. Thirani.

Secretary: B. L. Arukia.

General Sales Manager: S. R. Bhattacharjee.

Sales Manager: H. K. Mody.
Factory Manager: A. Biswas.
Purchase Manager: J. P. Gupta.

Export Manager : B. B. Dholekar.

Administrative Officer: S. K. Ghiya.

Keming Tools Co. Pvt. Ltd., 165/1, Kolshet Road, Thana.

Kerry Josts Tools Ltd., 60, Sir Phirozshah Mehta Road, Bombay 1.

Kerr, F. S. & Co. Pvt. Ltd., Maneckji Wada Building, 127, Mahatma Gandhi Road, Fort, Bombay 1.

Kersons Manufacturing & Co. India Pvt. Ltd., Gopal Niwas, Lohar Chawl, Bombay 2.

Kesar Corporation Pvt. Ltd., New Great Insurance Bldg., 7, Jamshedji Tata Road, Bombay 16.

Kesbo (Private) Limited, 534, Sandhurst Bridge, Bombay 7.

Keshavlal Talakchand Private Ltd., India House, opp. G.P.O., Bombay 1.

Khandelwal Bros. Pvt. Ltd., Khandelwal Bhavan, 166, D. N. Road, Fort, Bombay 1.

Khandelwal Udyog Ltd., Rajawadi, Kurla Kirol Road, Bombay 77.

Khemka & Co. (Agencies) Pvt. Ltd.—Vulcan Insurance Building, Veer Nariman Road, Bombay 20.

Khetan Business Corporation Pvt. Ltd., Khetan Bhavan, 198, J. Tata Road, Bombay 20.

Khira Steel Works Pvt. Ltd., Swami Vivekananda Road, Santa Cruz, West, Bombay 54.

Kidarnath Kishanchand Pvt. Ltd., Navsari Chambers, 4th Floor, Outram Read, Fort, Bombay 1.

Kilachand Devchand & Co. Pvt. Ltd., 7, Jamshedji Tata Road, Bombay 20.

Killick Industries Ltd., Killick House, Home Street, Fort, Bombay 1.

Kodak Ltd., Kodak House, Dr. Dadabhai Naoroji Road, Fort, Bombay 1 BR.

#### KOTAK & CO.

Head Office:

Navsari Building, Dadabhai Naoroji Road, Fort, Bombay I.

Gram: "KOTAKANDCO".

Phone: 263331.

Telex: 011-2466.

#### **EXPORTERS & IMPORTERS**

Raw Cotton, Cotton Yarn, Textiles, Silk and Art Silk Yarn, Staple Fibre and Yarn, Oils & Oilseeds etc. Also Industrial Machinery from Japan, U.K., U.S.A. and Continental Countries.

Viz. :

Textiles, Electrical Machineries & "Shimadzu"
Scientific Testing Machines.

Sole Selling Agents for N.G.K. Insulators Ltd., Japan

and

Mysore Porcelain Ltd., Bangalore

for

H. T. & L. T. Insulators & Accessories

for

Maharashtra, Madhya Pradesh, Gujarat and Goa.

Kooverji Devshi & Co. Pvt. Ltd., Arun Chambers, Tardeo Road, Bombay 34.

Kores (India) Ltd., 1st Pokhran Road, Thana.

Kuljian Corporation (India) Pvt. Ltd., 198, Jamshedji Tata Road, Bombay 20.

Lakhani Industries Pvt. Ltd., Mulji Jetha Bldg., 12, Champa Galli Cross Lane, Bombay 2.

Lakhanpal Pvt. Ltd., 29, Maharshi Karve Road, Bombay 20.

Lallubhai Amichand Pvt. Ltd., 48, Kansara Chawl, Bombay 2.

Larsen & Toubro Ltd., L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Lee & Muirhead (India) Private Ltd., 12, Rampart Row, Fort, Bombay 1.

Leela Scottish Lace Pvt. Ltd., Leela Baug, Andheri-Kurla Road, Bombay 59.

Linotype and Machinery Ltd., Botawalla Building, Horniman Circle, Bombay 1.

Lion Pencils Pvt. Ltd., 95, Subhas Road, Bombay 2.

Lionel Edwards Ltd., Nicol Road, Ballard Estate, Bombay 1.

Lipton (India) Ltd., Ilaco House, Sir Phirozeshah Mehta Road, Bombay I.

Lloyd Triestino, Neville House, Graham Road, Ballard Estate, Bombay 1.

London Assurance, The International, 16, Queen's Road Estate, Bombay 20.

#### LALLUBHAI AMICHAND PVT. LTD.

Registered & Sales Office :

48/50, Kansara Chawl, Bombay 2.

Phones: 333987, 333988. Grams: "CYCLEBRAND".

#### Works :

 The Dun Aluminium Factory, 225/27, Tardeo Road, Bombay 7.

Phone: 377154 (4 Lines). Telex: 2464.

Tube Division, 104, Sion-Matunga Estate, Sion, Bombay 22.

Phone: 471383.

#### Renowned manufacturers of:

- "Cycle" and "Elephant" Brand aluminium utensils and wares.
- 2. Electrical shades and loud speaker horns.
- "Queen" Brand German Silver and Non-ferrous metal utensils.
- 4. "Queen" Brand stainless steel utensils.
- 5. Brass and Mild Steel machine screws.
- 6. Aluminium and Mild Steel spools and cans.
- 7. Aluminium and Non-ferrous metal rivets.
- 8. Collapsible Tubes and Rigid Wall Containers.
- Approved Manufacturers of Hindalium Kitchenwares.



### LARSEN & TOUBRO LIMITED

Registered Office and Head Office:

L & T House, Ballard Estate, P. O. Box 278, Bombay I.

Phone: 268181.

Grams: "LARSENBRO".

Telex: TLX 2246.

Works and Stores: Saki Vihar Road, P.O. Box 8901, Bombay 72 AS. Phone: 581401 (Powai West Works).

Works and Service Station: Saki Vihar Road, P.O. Box 8922, Bombay 72 AS. Phone: 581401 (Powai East Works).

Regional Offices: P.O. Box 278, Bombay I; P.O. Box 619, Calcutta; P.O. Box 323, New Delhi; Post Bag 5247, Madras.

Branch Offices and Liaison Offices: Ahmedabad, Bangalore, Baroda, Bhilai, Belgaum, Bhopal, Chandigarh, Cochin, Coimbatore, Durgapur, Hyderabad, Jaipur, Korba, Lucknow, Panaji, Raipur, Rourkela, Trivandrum, Vijayawada, Visakhapatnam.

Manufacturers and representatives of over 200 overseas and Indian manufacturers and civil, mechanical and electrical engineers.

The L&T Group of companies including subsidiary and associate companies manufactures plant and equipment for full range of dairy operations; spray drying plants for milk powder, egg powder, chemicals and plastics, etc., equipment for refrigeration and meat processing industries; garbage compost milling plants; grain handling equipment including pneumatic dischargers, conveyors, silos and bagging plants; cattle and poultry feed compounding plants; equipment for sugar, chemical, pharmaceutical, petro-chemical, dyestuffs and fertiliser industries, distilleries and breweries; complete sulphuric acid, oleum, phosphoric acid, superphosphate, triple superphosphate, phthalic anhydride plants; plant and machinery for cement, pulp and paper, iron and steel and mining industries; heavy equipment for nuclear power plants; motor starters and contactors, switch and fuse units, HRC fuses, rotary switches, push buttons; low tension air circuit breakers; rectifier plant; main switchboards and circuit breaker panels, distribution switchboards—cast iron and sheet steel types, control and relay panels, industrial process control panels; valves; petrol dispensing and metering pumps; jigs and fixtures, pressure casting dies, press tools, plastics and bakelite moulds; low temperature welding alloys, electrodes, fluxes and Eutalloy microflo torches; cooling towers; sheeps-foot tamping and vibratory rollers; aluminium capsules, capsuling machines and crown corks; rotary water well and diamond core drills and

diamond bits and industrial diamond bits; undercarriage parts for crawler tractors.

Representatives of manufacturers of track and wheel type tractors, bulldozers, rippers, scrapers, traxcavators and motor graders for agriculture, mining and earthmoving, diesel engines for heavy duty vehicles, marine and industrial applications and power generation, grain handling equipment such as pneumatic dischargers, conveyors and silos; material handling equipment including shovels, cranes, bucket wheel excavators, fork lift trucks, locos, prime movers and trailers; oil well, water well and core drilling, mining and processing equipment; turbine pumps and accessories; plant and equipment for dairy, food processing, chemical, petro-chemical, fertiliser and allied industries; plants for explosives, cotton seed preparation and solvent extraction; glass lined equipment, thin film evaporators and indirect heating units; safety fuses and detonators; plant and equipment for cement, pulp and paper and iron and steel industries; high tension and low tension switchgear, transformers, metering and protection equipment, capacitors, rectifiers, special motors and cables; refrigeration, spray drying and accelerated freeze drying plants, controls and accessories; food, confectionery and pharmaceutical packaging and bottling machines; nuclear handling equipment; electronic, telemetering, communication, process control, measurement and data handling instruments and machines; seismic instruments; flow control and other special purpose valves; low temperature welding alloys, electrodes and fluxes; and other industrial appliances, equipment and instruments.

Subsidiaries: Christensen-Longyear (India) Limited, Engineering Construction Corporation Limited, and Willcox Buckwell India Limited. (For details, refer Commercial Firms Section in Bombay for the first two companies and Delhi for the last).

Associate Companies: Audco India Limited, Eutectic Welding Alloys of India Limited, Utkal Machinery Limited, Tractor Engineers Limited, Tractor & Equipment Corporation Limited, (For details, see listing under Commercial Firms in Bombay).

Directors: H. Holck-Larsen, S. K. Toubro, Dwarkadas H. Vora, N. M. Desai, Ambalal S. Parekh, S. D. Vimadalal, P. G. Bhagat, Chinubhai C. Chokshi, John Hover, Gunnar Hansen.

London, Eastern & American Trading Co. Pvt. Ltd., 22, Hamam Street, Bombay 1.

Lube India Ltd., Admn Bldg., Corridor Road, Bombay 74. Lubrizol India Ltd., 9A, S. Patkar Marg, Bombay 26.

Lucas Indian Service Ltd., 15, Mama Parmanand Marg, Bombay 4.

Lumala Industries Pvt. Ltd., 344-46, Kalbadevi Road, Bombay 2.

M. L. Mansukhani & Co. Pvt. Ltd., 69, Princess Street, Devkaran Mansions, Bombay 2.

Mackinnon Mackenzie & Co., Pvt. Ltd., 4, Shoorji Vallabhdas Marg, Bombay 1.

Maemillan & Co. Ltd., 276, Dr. Dadabhai Naoroji Road, Bombay 1.

Macropolo D., & Co., Ltd., Kermani Building, Sir P. M. Road, Fort, Bombay 1.

Maevy & Co., 327, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Mafatlal Gagalbhai & Company Private Ltd., Mafatlal House, Back Bay Reclamation, Bombay 20.

Mahindra & Mahindra Ltd., Gateway Building, Apollo Bunder, Bombay 1.

Mahindra Ugine Steel Co. Ltd., 14, Altamount Road, Bombay 26.

Malabar Steamship Co. Ltd., "Darabsha House," Ballard Road, Ballard Estate, Bombay 1.

Malik Electricals P. Ltd., No. 13, Victoria Road, Low Level, Bombay 10 DD.

Maneklal Parshottam (India) Pvt. Ltd., 156, Zaveri Bazar, Bombay 2.

### MANOHAR BROTHERS

Engineers and Machinery Merchants.

Importers of:

- Oil Engines
- Electric Motors
- Switch Gears
- Generating Sets
- Machine Tools

and

Dealers in Ball and Roller Bearings, Rubber Beltings & Mill Stores.

Show Room:

4, Commerce House, Medows Street, Fort, Bombay.

Phones: 254496, 297247. Grams: "LOCOMOTIVE"

Branch:

37, Errabalu Chetty Street, Madras.

Phone: 23274.

Manilal Patel Pvt. Ltd., 38, Cawasji Patel Street, Bombay 1.

Markeel Private Ltd., Shreeji Bhavan, Lohar Street, Bombay 2.

Marshall Sons & Co., (India) Ltd., 79, Dr. Annie Besant Road, Worli, Bombay 18.

Martin & Harris (Private) Ltd., Savoy Chambers, Wallace Street, Bombay 1.

Martin Burn Ltd., Esplanade House, Waudby Road, Bombay 1.

Mather and Platt Ltd., 8, Graham Road, Ballard Estate, Bombay 1 BR.

May & Baker (India) Pvt. Ltd., Karimjee House, Sir Pherozshah Mehta Road, Bombay 1 BR.

Mckenzies Ltd., Sewri, Bombay, 15.

Mercantile & Industrial Development Co. (Pvt.) Ltd., National House, 6, Tulloch Road, Bombay 1.

Merck Sharp & Dohme of India Ltd., New India Centre, 17, Cooperage, Bombay 1.

Metal Box Co. of India Ltd., 249, A. Besant Road, Bombay 18.

Metals Pvt. Ltd., 269, Dadabhoy Naoroji Road, Bombay 1.
Metallica Works Pvt. Ltd., 138-141, Government Industrial Estate, Kandivli, Bombay 67 NB.

Metro Exporters Pvt. Ltd., 5, New Queen's Road, Bombay 4.

Mettur Industries Ltd., Dhan-Nur Building, Sir P. M. Road, Bombay 1.

Millars' Timber & Trading Co., Ltd., Victoria House, Victoria Road, Bombay 27.

Minimax Ltd., 29, Fort Street, Bombay 1.

#### MONSANTO CHEMICALS OF INDIA PVT. LTD.

Wakefield House, Sprott Road, Ballard Estate, Bombay I.

Phone: 262623/24/25. Grams: "MONSANTO."

Formulators & Importers of Industrial, Pharmaceutical and Agricultural Chemicals manufactured by Associated and other Companies in U.S.A.,

U.K., Australia and Canada.

District Offices:

19, Rajendranath Mukherjee Road, Calcutta 1.

3/8, Asaf Ali Road, Near Turkman Gate, New Delhi.

Caithness Hall, 310-311, Linghi Chetty Street, G.T.

Madras.

#### NON-FERROUS METALS & ALLOYS

#### METALLICA WORKS PVT. LTD.

138-141, Government Industrial Estate, Kandivli, Bombay 67 (NB).

Grams: "METAMELT", Bombay, Kandiyli.

Phones: 693211 (8 lines).



#### MAKERS OF METALS

Gunmetals — Brasses — Bearing-Metals — Tin Solders
Aluminium Solders — Fluxes — Die Casting Alloys
Type-metals — Non-Ferrous Castings, Anodes, etc.
Lining and re-lining of all types of Bearings and Bushes
Lead Sheets — Lead Wool.



## MOHAMADI FINE ART LITHO WORKS

Proprietors:

Allibhoy Sharafally & Co. Private Ltd., Bombay-10 (DD).

Lithographers Offset & Letterpress Printers and

Carton Manufacturers.

Mohamadi Bldgs., Gunpowder Road, Mazagon, Bombay 10.

Phones: 378148 & 378149 Grams: "KORAN"

### METTUR BEARDSELL LIMITED

Dhan-Nur Building, Sir P. M. Road, Post Office Box No. 432, Bombay I.

Head Office: 3rd Floor, Bombay Mutual Building, Post Box No. 7, N. S. C. Bose Road, Madras I.

Branches at: Calcutta, New Delhi, Bangalore, Coimbatore, Cochin and Ahmedabad.

Textile Mill at : Mettur Dam R. S., Salem District.

Thermocole Factories at: Howrah and Mettur Dam R. S., Salem District.

Managing Director: M. E. Bourcier.

Directors: B. V. Reddy, C. Doraswamy,

M. A. Chidambaram, J. C. Champion.

Activities: Textiles, Expanded Polystyrene (Manufacture, Distribution & Application) Agents for Textile Machinery & Accessories, Electric Motors, Chemicals, Nylon Fishnet Twine, etc.

#### MARTIN & HARRIS (PRIVATE) LTD.

Manufacturing Chemists and Manufacturers' Representatives: Savoy Chambers, Wallace Street, Bombay I. Phones: 263473-74-75-76-77. Grams: "ROWLETTE". Director: Prithviraj Sinh; Sales Manager: R. Kripa Sankar.

Head Office: Mercantile Buildings, Lal Bazar, Calcutta I.
Calcutta Factory: 182, Acharya Jagadish Chandra Bose
Road, Calcutta 14.

Bombay Factory: 2nd Pokhran Road, Thana.
Aspirin Factory: 62A, G. T. Road, Konnagar.
Directors: Jit Paul, F. Lemmon and Prithviraj Sinh.
Branches: Patna, Gauhati, Cuttack, New Delhi,
Chandigarh, Lucknow, Jaipur, Srinagar, Bombay,
Nagpur, Ahmedabad, Jabalpur, Madras, Bangalore,
Cochin, Vijayawada, Hyderabad.
Sole or Accredited Agents or Representatives for:

Sole or Accredited Agents or Representatives for:
Amalgamated Dairies Ltd., Auckland, N.Z.
Ames Company Inc., Elkhart, Indiana, U.S.A. & London.
A. Gallenkamp & Co. Ltd., London.
Bausch & Lomb Inc., Rochester, New York, U.S.A.
Carlson-Ford Sales Ltd., England.
Johnsons of Hendon Ltd., Hendon, London.
Hindustan Antibiotics Ltd., Pimpri.
Organon Laboratories Ltd., London & Holland.
Stanton Instruments Ltd., London.
A.E.I. Ltd., Instrumentation Division, Harlow, Essex.

A.E.I. Ltd., Instruments Ltd., London.
A.E.I. Ltd., Instrumentation Division, Harlow, Essex
Ward's Natural Science Establishment Inc.,
Rochester, N.Y.

Ventron Instruments Corporation, Cahn Division, Paramount, California, U.S.A.

Distributors for:
Organon (India) Ltd., Calcutta.

Leukoplast (India) Private Ltd., Panjim, (Goa).

#### MARTIN BURN LTD.

Grams: "MARTINBURN"

#### INDIAN IRON & STEEL CO., LTD.

Grams: "INISCOBOM"

#### **BURN & COMPANY LTD.**

Grams: "BURNBOM"

## IISCO-STANTON PIPE & FOUNDRY CO., LTD.

Grams: "ISCOSTANBY"

Esplanade House, Waudby Road, Bombay I BR.

Telephone: 266115

Branch Manager: Col. G. C. Dubey.

Registered Office:
12, Mission Row, Calcutta 1.

Branches at:
Delhi, Kanpur and Patna.

London Office: Martin Burn House, 12, Austin Friars, London E.C. 2.

#### MAFATLAL GAGALBHAI & CO. PYT. LTD.

Directors:

Shri Arvind Navinchandra Mafatlal Shri Yogindra Navinchandra Mafatlal Shri Rasesh Navinchandra Mafatlal Shri Hemant Bhagubhai Mafatlal Mrs. Vijaylaxmi Navinchandra Mafatlal Mrs. Shardaben Bhagubhai Mafatlal Mrs. Madhuriben Yogindra Mafatlal

MAFATLAL GAGALBHAI & SONS.

#### Partners:

Shri Arvind Navinchandra Mafatlal
Shri Yogindra Navinchandra Mafatlal
Shri Rasesh Navinchandra Mafatlal
Shri Rasesh Navinchandra Mafatlal
Shri Hemant Bhaghubhai Mafatlal
The Standard Mills Co. Ltd., Bombay & Dewas.
The Standard Mills Co. Ltd., (Chemical Division), Bombay.
New Shorrock Spg. & Mfg. Co. Ltd., Ahmedabad and Nadiad.
Mihir Textiles Ltd., Ahmedabad.
Mysore Commercial Union Ltd., Bangalore.
The Mafatlal Fine Spg. & Mfg. Co. Ltd., Navsari & Bombay.
Navin Fluorine Industries, Bhestan, Surat.
The Surat Cotton Spg. & Wvg. Mills Private Ltd., Surat.
Gagalbhai Jute Mills, Calcutta.
Navin Plastic Products, Baroda.
Sahyadri Dyestuffs & Chemicals Private Ltd., Poona.
Indian Dyestuff industries Ltd., Bombay.
Mafatlal Services Pvt. Ltd., Bombay.
Nafatlal Services Pvt. Ltd., Bombay.
N. B. Tubewells & Co., Bombay, Ahmedabad & Calcutta.
M. G. Investment & Industrial Co. Ltd., Bombay.
Mafatlal Apparel Mfg. Co., Nadiad.
M. G. Associates, Bombay.
Textile Distributors & Agents, Bombay.

Phone: 291199. Grams: "HITSAGAR"
Telex No. (011) 2460. Post Box No. 1038.
Mafatlal House, Backbay Reclamation, Bombay 20 (BR).

#### MAZAGON DOCK LTD.

Shipbuilders, Shiprepairers & Engineers

Mazagon, BOMBAY 10 DD.

Telephones: 379511-15, 372566-69, Telex: 2568. Cables: "MAZDOCK."

Goa Shipyard Ltd., Vasco-da-Gama, Goa.

(Subsidiary of Mazagon Dock Ltd.) Telephone: Office: VASCO 59 Yard: VASCO 127 (24 Hrs.)

Managing Director:
Rear-Admiral B. A. Samson, I.N. (Retd.).

Dry Docks	Extreme Length (m)	Maximum width of vessel for docking (m)	Depth of water at S.M. H.W. (m)
'Ritchie'	 150-88	18-59	5.49
'Mogul'	 129-84	16-76	4.88
'Mazagon'	 46.94	10.06	2.74

#### **Building berths:**

The Company has 4 building berths. (Two berths, capacity vessels up to 145 m. long and 24 m. broad and two berths, capacity vessels upto 70-10 m. long; A 40-ton and two 15-ton level luffing cranes have been provided alongside the two 145 m. long building berths. An optical tower for marking plates, a short-blasting machine, a plano shear, heavy 600-ton and 350-ton presses, etc., have been installed in the Company's new Platers and Assembly Shops.

#### Shipbuilding:

Craft up to 145 m. in length or 15,000 tons dw. like destroyers and frigates, passenger ships, cargo ships, dredgers, tugs, barges, trawlers, launches, floating cranes, floating docks, special purpose pontoons and assault boats. (Company has entered into collaboration with I.H.C. Holland for building dredgers.)

#### Shiprepair:

All types of hull and engine repairs carried out to sea-going ships, both steam and diesel. Survey, testing, repair and recertification of marine inflatable liferafts by trained personnel undertaken.

Kasara Basin: The Company has converted the shallow tidal Kasara Basin into an impounded wet dock capable of accommodating 3 to 4 medium size ships for fitting out or repair.

#### SPECIALISED WORK

#### Cranes:

Manufacture of port, dock, shipbuilding and floating cranes in collaboration with Kampnagel (Subsidiary of DEMAG) of West Germany.

#### Engineering:

Manufacture of pressure vessels, precision machining, annealing, radiograph quality welding, overhauling of steam, diesel and petrol engines, ferrous and non-ferrous castings and rewinding of motors and generators undertaken.

Mirch Industries Pvt. Ltd., Delstar, Hughes Road, Bombay 26.

Mirex Heat Transfer Pvt. Ltd., Delstar, Hughes Road, Bombay 26.

Modella Woollens Ltd., 4C, Vulcan Insurance Bldg., Veer Nariman Road, Bombay 20.

Mody Industries Foreign Collaboration Pvt. Ltd., 62B, Shankar Road, Bombay 28.

Mogul Line Ltd., 16, Bank Street, Fort, Bombay 1.

Mohamedi Fine Art Litho Works, Gun Powder Road, Bombay 10 (DD).

Monotype Corporation Ltd., 1st Floor, India House, Opp. G.P.O., Bombay 1.

Monsanto Chemicals of India Pvt. Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Montana Pvt. Ltd., Rahimtoola House, Homji Street, Bombay 1.

Morarji Dorman Smith Ltd., 315, Dadabhoy Naoroji Road, Bombay 1.

Motor Industries Co., Ltd., 79, Dr. Annie Besant Road, Worli, Bombay-18 (WB).

Motwane Pvt. Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Mukund Iron & Steel Works Ltd., Agra Road, Kurla, Bombay 70.

Mulraj Khatau & Sons Pvt. Ltd., Laxmi Building, Ballard Road, Bombay 1.

Murphy India Ltd., Dr. Shirodkar Road, Parel, Bombay 12.

Mysore Commercial Union Ltd., Mafatlal House, Backbay Reclamation, Bombay 20.

Mysore Sales International Ltd., Arun Chambers, Tardeo Main Road, Bombay 34.

Nagpal Ambadi Petro-Chem Refining Ltd., Industrial Assurance Bldg., Jamshedji Tata Road, Bombay 20.

Naarden Chemical Works (India) Ltd., Saki Naka, Saki Vihar Road, Bombay 72.

Nanavati & Co. Pvt. Ltd., Nanavati Mahalaya, Bruce Street, Fort, Bombay 1.

Narottam & Pereira Ltd., Scindia House, Dougall Road, Ballard Estate, Bombay 1.

National Asphalt Products & Construction Co., Hill View, Mahul Road, Bombay 74.

National Cash Register Co., 125, Dinsha Wacha Road, Bombay 20.

National Ekco Radio & Eng. Co. Ltd., Ewart House, Bruce Street, Fort, Bombay 1.

National Electrical Industries Ltd., Industrial Estate, Lalbaug, Bombay 12.

National Engineering Industries Ltd., "Advent", 12 A, Foreshore Road, Bombay 1.

National Leather Cloth Mfg. Co., 480, Sandhurst Road, Bombay 4.

National Litho Works Private Ltd., 608 Jagtap Marg, Bombay 11.

National Machinery Manufacturers Ltd., Kalwe, Thana. National Organic Chemical Industries Ltd., Sandoz House, Dr. Annie Besant Road, Bombay 18.

National Peroxide Ltd., Neville House, Graham Road, Ballard Estate, Bombay 1.

National Rayon Corpn. Ltd., Ewart House, Bruce Street, Bombay 1.

## THE NEW GREAT INSURANCEICO. OF INDIA LTD.

Registered Office: Bank Building, Mandvi, Baroda.

Principal Office: New Great Insurance Building,
7, Jamshedji Tata Road, Bombay 20.

Paid-up Capital: Rs. 25,00,000. Chairman: Tulsidas Kilachand.

General Manager: E. S. Ramakrishnan. Dy. General Manager: C. R. Desai.

Business transacted: Fire, Marine, Motor and Miscellaneous Insurances.

Offices at: Agra, Ahmedabad, Amreli, Alipurduar, Amravati, Asansol, Amritsar, Baroda, Bangalore, Belgaum, Bellary, Bilaspur, Burdwan, Bhavnagar, Bhopal, Bhilwara, Bareilly, Bijapur, Cuttack, Calcutta, Coimbatore, Cochin, Dhanbad, Dhubri, Gondia, Hyderabad, Hubli, Indore, Jalna, Jaipur, Jabalpur, Jalgaon, Jodhpur, Jammu, Jullundur, Jalpaiguri, Kanpur, Kotah, Karad, Kakinada, Kolhapur, Lucknow, Ludhiana, Madras, Mangalore, Margao, Meerut, Midnapore, Muzaffarpur, Nagpur, Nairobi, New Delhi, Nizamabad, Patna, Poona, Raipur, Ranchi, Ratlam, Rajkot, Sangli, Sagar, Sholapur, Sriganganagar, Siliguri, Surat, Trichur, Ujjain, Udaipur, Vijayawada, Varanasi, Vasco-da-Gama (Goa).

Representatives at : Kampala & Seychelles.

## SCIENCETODAY

## ON THE THRESHOLD OF A NEW WORLD

The spectacular achievement of space travel and the resulting advances in technology, have thrust man on the threshold of new horizons. Science plays far too great a part in our lives to be ignored.

To help you understand how it moulds your life SCIENCE TODAY, an engrossing monthly, presents articles and features on the latest developments in science and technology. It acquaints you with the work of foremost scientists in India and abroad.

SCIENCE TODAY, being written in a simple, lucid language is easily understood by both scholar and layman. You become science-oriented by reading SCIENCE TODAY.

A TIMES OF INDIA PUBLICATION

# NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED

Registered Office:

Sandoz House, Dr. Annie Besant Road, Worli, BOMBAY 18 WB.

Telephone: 370061. Telegram: "PETRONOCIL." Telex: 2296

Manufacturers of petrochemicals in collaboration with Companies of the Royal Dutch Shell Group.

Products manufactured: Ethylene, Propylene, Benzene, Butadiene, Methane, Dicyclopentadiene, Ethylene Oxide, Ethylene Glycol, Diethylene Glycol, Polyethylene Glycol, Ethylene Dichloride, Vinyl Chloride Monomer, PVC, Finished PVC products, Isopropanol, Methyl Isobutyl Ketone, Acetone, Diacetone Alcohol, Butanol, 2-Ethyl Hexanol.

Exclusive Distributors in India for Shell Chemicals, Agricultural & Public Health Products, Industrial Products.

Central Sales Office: Sandoz House, Dr. Annie Besant Road, Worli, Bombay 18 WB. Telephone: 370061.

Branches at Bombay: State Bank Bldg., Dr. Annie Besant Road, Worli, Bombay 18 WB. Telephone: 370061. Grams: "SALESNOCIL."

Calcutta: Himalaya House, 38, Chowringhee, P.B. Box No. 2468, Calcutta. Telephone: 240058. Grams: "SALESNOCIL."

New Delhi: Burmah-Shell House, Connaught Circus, Post Box No. 260, New Delhi I. Telephone: 43475. Grams: "SALESNOCIL."

Madras: Kothari Buildings, 20 Nungambakkam High Road, Nungambakkam P.O., Post Box No. 1774, Madras 34. Telephone: 81916. Grams: "SALESNOCIL."

#### Board of Directors :-

Mr. Arvind Navinchandra Mafatlal, Chairman.

Mr. Yogindra Navinchandra Mafatlal.

Mr. Rasesh Navinchandra Mafatlal.

Mr. Hemant Bhagubhai Mafatlal.

Dr. Cyrus Jehangir Dadachanji, Administrative Managing Director.

Mr. William Cran Thomson.

Mr. Norman John Sutton.

Mr. Reginald Owen Jackson.

Mr. Edward Lelyveld.

Mr. Eric John Mackay, Technical Managing Director.

Mr. Haravu Varada Raj lengar.

Mr. Nani Ardeshir Palkhivala.

Mr. John Anderson (alternate to Mr. W. C. Thomson).

Mr. Raghavayya Setlur (alternate to Mr. N. J. Sutton).

Mr. Bevan Rayner (alternate to Mr. E. Lelyveld).

# THE NATIONAL RAYON CORPORATION LIMITED

Head Office:

Ewart House, Bruce Street, Fort, Bombay I.

Phone: 290808 (Seven lines).

Grams: "NARACORP", Bombay.

Registered Office:

Eros Theatre Bldg., I, Jamshedji Tata Road, Bombay 20.

Phone: 296063 (Three lines).

Factory: Mohone, Taluka Kalyan, Central Railway. Phones: 301, 302, 303 (Kalyan Exchange).

\*

#### Manufacturers of:

Rayon Yarn, Rayon Tyre Cord, Tyre Warp Sheet, Sulphuric Acid, Carbon-disulphide, Caustic Soda and Chlorine, Anhydrous Sodium Sulphate, Hydrochloric Acid, Carbon Tatrachloride, Oleum, Glauber Salt and Hydrogen Gas.

#### Directors:

Shri Kasturbhai Lalbhai (Chairman).

Shri Rasiklal J. Chinai.

Shri Mathuradas Mangaldas Parekh.

Shri Krishnaraj M. D. Thackersey.

Shri Arvind N. Mafatlal.

Shri Naval H. Tata.

Shri Laljibhai C. Kapadia.

Shri Nimjibhai C. Kapadia.

Shri Natwarlal M. Chinai.

Shri Rustom K. Framjee.

Shri C. G. Mahant.

#### Senior Executives:

Vice-President (Technical): Dr. M. D. Parekh.

Works Manager: Dr. S. I. Taraporewala.

Executive (Administration): Shri R. N. Wallia.

National Steamship Co. Ltd., Darabsha House, Ballard Road, Ballard Estate, Bombay 1.

National Steel Equipment Co., 265, A. Besant Road, Bombay 25.

National Tiles & Industries (Pvt.) Ltd., 31, Hamam Street, Bombay 1.

National Wire Heald Works (Private) Ltd., Lakshmi Bldg., Sir Phirozshah Mehta Road, Fort, Bombay 1.

Natson Mfg. Co. P. Ltd., 19, Hamam Street, Bombay 1.

Natural Gas Co., Private Ltd., 53/57, Laxmi Building, Sir Phirozshah Mehta Road, Bombay 1.

Nenshi Monji, 123, M. Gandhi Road, Bombay 1.

Nestler Boilers Private Ltd., Love Lane, Cross Lane, Byculla, Bombay 27.

Nestle's Products (India) Ltd., Kaiser-I-Hind Bldg., Currimbhoy Road, Ballard Estate, Bombay 1.

New Book Co. Private Ltd., Kitab Mahal, Dr. D. N. Road, Bombay 1.

New Consolidated Construction Co. Ltd., Rahimtoolla House, Homji Street, Fort, Bombay 1.

New Dholera Shipping & Trading Co. Ltd., Darabsha House, Ballard Road, Bombay 1.

New Haven Engineering Co. Pvt. Ltd., Nanjee Building, 17-B, Horniman Circle, Bombay 1.

New Haven Steel Ball Corporation Pvt. Ltd., Pandyan House, 309, Frere Road, Bombay 1.

New Standard Engineering Co. Ltd., NSE Estate, Goregaon, Bombay 63.

Newkem Products Corporation, Harganga Mahal, Dadar T.T., Bombay 14.

Nirlon Synthetic Fibres & Chemicals Ltd., 115, M. Gandhi Road, Bombay 1.

Nitin Engineering & Manufacturing Co. Pvt. Ltd., Commerce House, 21 Ropewalk Street, Bombay 1.

N. Jivanlal & Co. Pvt. Ltd., Nagindas Chambers, 167, P. D'Mello Road, Bombay 1.

Noble Paint & Varnish Co., Private Ltd., Fergusson Road, Lower Parel, Bombay 13.

Nowrosjee Wadia & Sons Pvt. Ltd., Neville House, Ballard Estate, Bombay 1.

N. S. Guzder & Co. Pvt. Ltd., Neville House, Ballard Estate, Fort, Bombay 1.

Nutex (India) Private Ltd., 79, Princess Street, Bombay 2.

Oilseeds Trading Co. Pvt. Ltd., Currimjee Building, 111, Mahatma Gandhi Road, Bombay 1.

Optimohar Industries Pvt. Ltd., 16, Bhagatsingh Road, Bombay 1.

Orient Express Co. Pvt. Ltd., 359, Dadabhoy Naoroji Road, Bombay 1.

Orient Longmans Ltd., Indian Mercantile Chambers, Nico Road, Ballard Estate, Bombay 1.

Oriental Can Manufacturing Co., 1076, Haines Road, Worli, Bombay 18.

Oriental Metal Pressing Works Pvt. Ltd., 131, Worli, Bombay 18.

Oris (India), Fazalbhoy Bldg., Flank Road, Bombay 9.

Orkay Group of Industries, 24B, Master Road, Bombay 2.

Ormerods (India) Pvt. Ltd., Bank of Baroda Bldg., Apollo Street, Bombay I.

Orwo Pvt. Ltd., Stadium House, Nariman Road, Bombay 20.



## OTIS ELEVATOR CO. (INDIA) LTD.

Zone Office:

Gateway Building, Apollo Bunder, Bombay-I.

Telephones: 211050, 211058, 211059.

Bombay District Office:

Cecil Court, 5th Floor, Lansdowne Road, Apollo Bunder, Bombay I. Telephones: 214231/32.

Factory & Factory Office:

Akurli Road, Kandivli East, Bombay 67 NB. Telephones: 693346 (4 lines).

Mr. P. L. Vahi, Managing Director.

Mr. M. N. Nair, Works Manager.

Mr. S. S. Sujan, Bombay District Manager.

Otis Elevator Co. (India) Ltd., Gateway Building, Apollo Bunder, Bombay 1.

Overseas Manufacturers Sales Co., India House, Fort Street, Fort, Bombay 1.

Oxford University Press, Oxford House, Apollo Bunder, Bombay 1.

Oyatape Fibres P. Ltd., 5, Lotus Court, J. Tata Road, Bombay 20.

P. & H. Vaswani Pvt. Ltd., 502, Kalbadevi Road, Bombay 2.

P. Prabhulal & Co. Private Ltd., 278, D. N. Road, Bombay 1.

Packing Materials Corporation, K. S. Gadgil Marg (East), Off Gokhale Road, Bombay 25.

Paper Products Ltd., 120, Dinshaw Vachha Road, Bombay 20.

Paramount Dyes & Chemicals Pvt. Ltd., Elphinstone Building, Veer Nariman Road, Fort, Bombay 1.

Parekh Brothers Ltd., 65, Mahatma Gandhi Road, Bombay I.

Parke Davis (India) Limited, Saki Naķa, Bombay-72-AS. Parle Bottling Co. Pvt. Ltd., Western Express Highway, Chakala, Andheri (East), Bombay 69.

Parle Products Pvt. Ltd., Thackersey House, Graham Road, Ballard Estate, Bombay 1.

Patel Engineering Co. Ltd., United India Building, Sir P. M. Road, Fort, Bombay 1.

Patel (India) Pvt. Ltd., 190, D. Naoroji Road, Bombay I. Patel Volkart Ltd., Volkart Bldg., B. Estate, Bombay 1.

Pavri Sons & Co., 97, Bazar Gate Street, Fort, Bombay 1. Pearline-Paris Pvt. Ltd., Rahman Building, Veer Nariman

Road, Fort, Bombay 1.

#### POLYOLEFINS INDUSTRIES LTD.

Registered Office:

Neville House, Currimbhoy Road, Ballard Estate, Bombay-1.

Phones:

{ Head Office : 260151 Factory : 593905.

Grams : "PILENE ".

Manufacturers of: High Density Polyethylene, Processed Polyethylene Products, Aluminium Organic Compounds, Technical Knowhow and Financial collaboration agreement with FARBWERKE HOE-CHST AG. of West Germany.

#### Factory at :

Thana-Belapur Road, Thana District, Maharashtra,

#### Board of Directors :

Arvind N. Mafatlal, Chairman.

W. C. Thomson (Alternate: E. J. Mackay).

W. Thies (Alternate : Dr. H. Koch).

R. G. Saraiya.

N. M. Wagle.

D. Zur Loye (Alternate: B. R. Tannan).

Administrative Managing Director: N. V. Vora.

Technical Managing Director: Dr. Erich Sattler-Dornbacher.

#### PFIZER LIMITED

Manufacturers and Distributors of a complete range of Pharmaceuticals, Animal Health Products, Pharmaceutical Chemicals, Agrochemicals and Nutritional Products.

#### Registered Office:

Express Towers, Nariman Point, Bombay I.

(Phone: 296031-10 lines)

#### Offices & Depots:

Ahmedabad, Bombay, Bangalore, Calcutta, Cochin, Cuttack, Gauhati, Indore, Jaipur, Lucknow, Ludhiana, Madras, New Delhi, Patna, Secunderabad and Srinagar.

#### Plants :

1. Thana-Belapur Road, Kalwa.

(Phone: 592948)

2. 178, Industrial Area, Chandigarh.

(Phones: 25295, 23048 & 23047).

Pegasus Rima Products (India) Ltd., 10, Jagtab Marg, Bombay 18.

Perfect Engg. Products Pvt. Ltd., 24, Raja Bansilal Bldg., 11, Bruce Street, Bombay 1.

Permanent Magnets Ltd., 200, Old Custom House Road, Bombay 1.

Petroleum and Minerals Pvt. Ltd., Rahimtoola House, Homji Street, Fort, Bombay 1.

Pfizer Ltd., Express Towers, Nariman Point, Bombay 1.

Pharmed Pvt. Ltd., 25/31, Ropewalk Lane, Fort, Bombay 1.

Philips India Ltd., Shiv Sagar Estate, Dr. A. Besant Road, Bombay 18.

Phipson & Co. Ltd., 1, Bakehouse Cross Lane, Bombay 1. Phoenix Chemical Works Pvt. Ltd., Bachoobai Building,

187, Dr. Dadabhai Naoroji Road, Bombay I. Photophone Equipment Ltd., 532, Sardar Vallabhbhai Patel Road, Bombay 7.

Pioneer Consolidated Co. of India Ltd., 11-13, Horniman Circle, Fort, Bombay 1.

Pioneer Equipment Co. Pvt. Ltd., 139, Nagindas Master Road, Bombay 1.

Pioneer Magnesia Works Ltd., 113/115, Mahatma Gandhi Road, Bombay 1.

Pitty Brothers Pvt. Ltd., 20, Hamam Street, Fort, Bombay 1.

Plas-Fab Pvt. Ltd., Advent, 12A, General J. Bhosle Marg, Bombay I.

Piyush Indenting House, 7, Ardeshir Dady X Lane, Bombay 4.

## PRESSURE PILING CO. (INDIA) PVT. LTD.

Patent Compressed Concrete Piles, Foundation and Cementation Specialists.

Registered Office: Savoy Chambers, West Wing, Wallace Street, Fort, Bombay I.

Phones: 263941 (2 lines), Post Box No. 319, Bombay 1.

Grams: "PRESURPILE", Bombay.

Godown: 222, New Sewri Road, Cotton Green, Bombay 33. Phone: 441485.

Managing Director: C. V. Deshpande, B.E., F.I. Struct. E. (Lond.), F.Am. Soc. C.E., C.Eng., M.I.E. (Ind.), F.R.S.H.

Directors: P. R. Tongaonkar, B.E., M.I.E. (Ind.), M.Am. Soc. C.E., S. C. Deshpande, B.Sc. (Eng.) (Lond.), M. Phil. (Lond.), V. C. Deshpande, B.Sc., Eng. Hon. (Lond.), and Mrs. Pramila Deshpande.

## PARRY AND

#### Registered Office: Dare House,

Branches: Bombay, Calcutta, Delhi, Bangalore, Mangalore, Calicut, Cochin, Coimbatore, Cuddalore, Madurai, Ootacamund, Secunderabad, Tiruchirappalli, Vijayawada, Visakhapatnam, Patna, Gauhati, Cuttack and Muzaffarpur.

Bombay Office: United India Building, Sir Phirozeshah Mehta Road, P.O. Box No. 506, Fort, Bombay-I, Phone Nos. 253951-2-3-4. Telegraphic Address: "DIESEL".

Holding Company: E.I.D.—Parry Ltd. (Incorporated in England).

Registered Office: Airwork House, 35, Piccadilly, London W.I.

Head Office: Dare House, Parry's Corner, Madras-I.

Manufacturers of: Fertilisers for various crops, Insecticides and Fungicides formulations, Seeds, Cattle and Poultry Feeds, Sugar, Spirit, Carbonic Acid Gas, Chemicals, Sanitaryware — Parryware — Vitreous Chinaware in collaboration with "Doultons" U.K.

Factories at Nellikuppam, Ranipet, Ennore and Tadepalle.

Fertiliser Mixing Centres at Cuddalore, Panruti, Katpadi, Mettupalayam, Salem, Thirumangalam and Tiruchirappalli In Tamil Nadu State, Kottayam and Feroke in Kerala State, Hospet, Hassan and Mysore South in Mysore State, Tadepalle, Alir and Nandyal in Andhra Pradesh, Shrirampur and Karad in Maharashtra and Ranoli in Gujarat.

Supplies of Fertiliser Mixtures blended to suit each crop are distributed to Agriculturists and Planters through the above Mixing Centres.

Ranipet Factory manufactures Superphosphate, Sulphuric, Nitric and Hydrochloric Acids, Epsom Salt and formulates Insecticides and Fungicides, Also Parryware — Vitreous and Standardware and Tower Packing Materials.

Tadepalle Factory in Andhra Pradesh manufactures Superphosphate through its subsidiary Andhra Fertiliser Limited. It also formulates Insecticides and Fungicides.

The Company owns a Compound Fertiliser Factory at Ennore near Madras, constructed at a cost of £3,000,000 producing 50,000 tonnes of Ammonium Phosphate 16: 20 which is marketed under the trade name of PARAMFOS. As a part of the manufacturing process the Factory includes plants for the production of Synthetic Ammonia, Sulphuric Acid and Phosphoric Acid. This Factory is expanded to produce 38,600 tonnes of Ammonium Sulphate also. The Factory also manufactures NPK Complex Fertilisers of the grade 14: 14: 14 under the Brand name Parry Complex.

E.I.D. — Parry Ltd., Madras, The International Minerals & Chemical Corporation, Skokie, Illinois and the Chevron Chemical Company, San Francisco, California, U.S.A. are the promoters of the Coromandel Fertilisers Limited, Secunderabad, which was established in April 1964.

The Coromandel Fertilisers Ltd. has an authorised Share Capital of Rs. 8,50,00,000 and has been licensed to manufacture at Visakhapatnam, Complex Fertilisers and Urea with a capacity of 3,65,060 tonnes per year in terms of 20:20:20 and 16,500 tonnes per year of prilled Urea.

The Company is now manufacturing Fertilisers of grade 20:20, 28:28 and 22:22:11 along with Urea. E.I.D. — Parry Ltd., are the Principal Selling Agents for these Products.

The Company has been appointed as one of the distributors of Complex Fertiliser and Urea being imported under the Seeding Programme for the Madras Fertiliser Project.

The Company's marketing activity in Hybrid Seeds has been extended to the high-yielding varieties of paddy and two Seed processing units have been set up at Panruti and Tiruchi in Tamil Nadu.

The Company is also setting up Projects for contract mechanical cultivation and land development, the manufacture and distribution of cattle feed and aerial spraying as well as expanding the Seed processing arrangements.

E.I.D. — Parry Ltd., are the all-India Agents for the Freeport Sulphur Co. of New York and Ruhr Stickstoff A.G. of Bochum, West Germany. They also distribute Jordan Rock Phosphate imported by Minerals and Metal Trading Corporation of India. The Group are also the Chairman of the Indian Potash Supply Agency which in co-operation with the State Trading Corporation of India distributes Potash in the country both indigenous and imported.

Subsidiary Company: The Mofussil Warehouse & Trading Co., Ltd., Dare House, Parry's Corner, Madras — General Importers and Warehousemen.

Fellow Subsidiary Companies: Parry Murray & Co., Ltd., (Incorporated in England). Registered Office: Airwork House, 35, Piccadilly, London W.I. East India Merchants.
Parry Murray Engines Limited (Incorporated in England), Airwork House, 35, Piccadilly, London W.I.

Parrys Packaging and Forwarding Ltd. (Incorporated in England), Airwork House, 35, Piccadilly, London W.I.

Andhra Fertilisers Private Ltd., Dare House, Parry's Corner, Madras-I. Manufacturers of Superphosphate. Factory at Tadepalle, Andhra Pradesh.

#### AGENCY LINES

#### **Engineering Department:**

All India: Mirrlees Blackstone Ltd., Gloucestershire.

Restricted Franchise: Heavy Diesel Engines and Generating Sets, Petters Ltd., Staines, England — Small Engines & Generating Sets, Midland Silicones Ltd., London. Silicone Products. Railway Mine and Plantation Equipment Ltd., London. Light Railway Materials and Simplex Diesel Locos.

Warren Metal Industries Ltd., Calcutta. Light Railway Materials (except Eastern India).

L. Sterne & Co., Ltd., Glasgow (U.K.) Industrial Refrigerating Machinery.

Kirloskar Electric Co., Ltd., Bangalore. Electric Motors, Transformers, Alternators and D.C. Machines.

Kirloskar Oil Engines Ltd., Poona, Diesel Oil Engines,

Kirloskar-Asea Ltd., Bangalore. Electric Motor Starters.

South India: Cummings Diesel Sales & Service (India) Ltd., Poona Diesel Engines (Industrial & Marine).

Alfred Herbert (India) Private Ltd., Calcutta, Machine tools and workshop equipment.

Indian Aluminium Co., Ltd., Calcutta. Corrugated Aluminium Sheets.

Jessop & Co., Ltd., Calcutta, Pressed Steel Tanks, Cranes etc.

Kirloskar Brothers Ltd., Kirloskarwadi Pumps, Crushers, Decorticators and Agricultural Implements.

Minimax Ltd., Calcutta, Fire Extinguishers.

Tide Water Oil Co., (India) Ltd., Calcutta. Lybricating Oils and Greases.

Henry Simon Ltd., London. Flour Milling Machinery.

Mintex Ltd., Yorkshire, England. Belting and Brake Lining.

Cochran & Co. Annan Ltd., Annan, Scotland. Cochran Boilers and Ruths Accumulators.

Tylors (Division of Crane) Ltd., Sussex. — Water Meters and Spares.

Mirex Heat Transfer Private Ltd., Bombay, Heat Exchangers.

## COMPANY LTD.

Parry's Corner, P.O. Box No. 12, MADRAS-1.

Mirch Industries (Private) Ltd., Bombay— Crystallisers, Gas Drying Plants, Continuous Miners, Pressure Filters and Chemical Process Plants.

Genlite Project, Ennore, Madras — Assembling of Parry Genlite Sets ranging from 3/KVA to 175 KVA.

Designing, Supply and Erection of Cold Storage, Package and Industrial Airconditioning Plants.

Undertake Electrical Contract Work on turn-key basis.

#### Pharmaceutical Department:

Dragerwerk Heinr & Bernh. Drager, Luebeck, West Germany.

(All India) — Anaesthesia Apparatus and Respiratory Medical Equipments.

Richard Wolf, GmbH, Knittlingen, West Germany.

(All India) - Genito Urinary and Endoscopic instruments.

Medicon, EgmbH, Tuttlingen, West Germany,

(All India) — General Operating instruments for general, E.N.T. Thoracic and Cardiovascular Surgery.

Karlz Storz, Tuttlingen, West Germany,

(All India excepting Maharashtra, Madhya Pradesh, Rajasthan and Gujarat) — Broncho Esophagoscopes, special E.N.T. instruments and apparatus.

Kerala Soaps & Oils Ltd., Oil Factory Division, Calicut, Kerala State (South India) — Shark Liver Oil, Adamin etc.

Cynamid India Ltd., Lederle Division, Bombay-I. (South & Eastern India) — Broad spectrum antibiotics, Hematinies, Multivitamin and Chemotherapeutics.

(All India) — Surcot Industries Private Ltd., Madras (Factory) Renigunta, Andhra Pradesh, for SURCOT Absorbent Cotton Wool, 'RECEL' Regenerated Cellulose, Non-Absorbent Cotton Wool, Gauze and Bandages, 'Helena' Sanitary Towels.

(South India) — Suneeta Laboratories, Indore, for Pharmaceutical Chemicals, Meprobamate, Niacinamide I.P., Nicotinic Acid I.P., Isoniazid I.P., Benzyl Benzoate B.P., Sodium Glycerophate B.P.C., Potassium Glycerophosphate B.P.C., Thia-Cetazone B.P., Paracetamol, Phenyl Butazone, Procaine Hydrochloride, Calcium Glycerophosphate, Manganese Glycerophosphate.

#### General Sales Department:

Bush Boake Allen Ltd., London — Essences, Aromatic Chemicals, Natural Essential Oils, Harmless Foods — Colours, Pigment Colours, Perfumery Compounds etc.

Rickett & Coleman of India Ltd., Calcutta — Purity & Pearl Barley, Dettol Antiseptic, Robin Ultramarine Blue, Cherryblossom Boot Polishes, Mansion and Cardinal, Furniture & Floor Polishes, Brasso, Silvo, Tolletries etc.

Britannia Biscuit Co. Ltd., Bombay - Biscuits.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd., Madras — Match & Paraffin Wax.

Corn Products Co., (India) Private Ltd., Bombay — Glucovita, Dextrose, Cornflour, Rex Fruit Squashes and Syrups, Baking Powder, B. & P. Custard Powder etc.

C. Doctor & Co. Private Ltd., Bombay — Industrial Starch, Liquid Glucose.

Sujata Mills Ltd., Liquid Glucose & Caprico Starch.

Standard Chemicals & Pharmaceuticals Co. Ltd., Bombay — Bicycle brand Saccharine.

The Metal Box Co. of India Ltd., Madras - Crown Corks.

W. J. Bush Products Ltd., Madras — Essences, Essential Oils, Chemicals, Colours, Perfumeries, Pharmaceutical Chemicals.

Amalgamated Co-operative Marketers (Australia) Ltd.
Melbourne — Condensed and Powdered Milk, Skimmed and
Full Cream Milk Products.

Hindustan Milkfood Manufacturers Ltd. [Nabha - Horlicks, Baby Food.

Horlicks Ltd., Slough - Horlicks

India Paper Pulp Co. Ltd., Calcutta — Writing, Printing and other Speciality Papers.

Sree Manjunatheswara Camphor Works, Mysore — Camphor, Lumpy & Tablets.

Sree Manjunatheswara Packing Products, Mysore — Packing paper etc.

Bararee Coke Co. Ltd., Calcutta — Coalol & Coaltar Bye Products.

Malt & Allied Products Co. Private Ltd., Madras-Malt Extract.

D. & C. Stern & Co., Ltd., London - Queen Anne Whisky.

Lamina Industries (Private) Ltd., Indore — Packing products and Polythene Bags.

Export Department: Besides exporting Group's manufactured goods, exports of other Indian Manufacturers also undertaken suitable Indian Products located for foreign buyers.

Chemical Imports Department: Freeport Sulphur Company, New York; Jordan Phosphate Mines Co., S.A., Amman; Ruhr-Stickstoff, A.G., Bochum.

Airlines Agencies: Air Ceylon, Air France, Air India, Alitalia Italian Airlines, British Overseas Airways Corporation, Czechoslovak Airlines, Cathay Pacific Airways, Indian Airlines Corporation, Japan Airlines, KLM Royal Dutch Airlines, Lufthansa German Airlines, Pan American Airways, Qantas Airways Ltd., Sabena Belgian World Airlines, Scandinavian Airlines System, Swissair, Thai Airways, Trans-World Airlines.

Steamer Agencies: Hansa Line, Bremen (Agents at Kakinada, Visakhapatnam, Masulipatnam, Nagapattinam and Cuddalore).

Isthmian Lines, Inc., New York (Agents at Cuddalore and Nagapattinam).

International Chartering Services Inc., New York.

International Ship Operating Services Inc., New York.

Moller Line (U.K.) Ltd., London.

Moller Line Ltd., Hongkong.

Messrs. Madrigal Shipping Corpn., Manila.

Travel Agents: Cox & Kings (Agents) Ltd.

Emigration Agents: The Government of Natal.

Clearing and Forwarding Agents: We undertake clearance from the Harbour on behalf of a number of firms who import machinery, spares and raw materials.



## PLAS-FAB PVT. LTD.

Specialists in

Woven and Non-woven Filter Fabrics for all industrial applications.

Suppliers of

**BONDTEX Non-woven Terene Lapping** used in Textile Printing and

> "ROLLIN-MANEKLAL" Rubber Blankets used in Textile Printing.

Sole Agents in India for **BONDTEX Non-woven Fabrics** manufactured by

#### TATA MILLS LTD.

and

"ROLLIN-MANEKLAL" Textile Printing Rubber Blankets

manufactured by

### T. MANEKLAL MANUFACTURING CO. LTD.

#### PLAS-FAB PRIVATE LTD.

Pioneers in industrial machine clothing

Head office:

"Advent", 7th Floor, 12-A General J. Bhosle Marg (Foreshore Road), Bombay I BR.

Telephone: 214258 Telegram: "FILTERFAB".

Calcutta office:

"KOHINOOR", Flat 5, 105 Park Street, Calcutta 16. Telephone: 44-0460 Telegram: "FILTCLOTH".

Ahmedabad office:

Bank of Baroda Building, 6th Floor, Fuwara, Gandhi Road,

> Post Box No. 323, Ahmedabad I. Telegram: "FILTERFAB".

## PEST CONTROL (INDIA) PRIVATE LIMITED



Consulting Entomologists - Termite Control - Disinfestation & Fumigation Service.

Member: National Pest Control Association Inc., U.S.A.-Entomological Society of India—Indian Pest Control Association—British Wood Preserving Association,

London. Address: Yusuf Building, Mahatma Gandhi Road, P.O. Box 1510, Bombay 1.

Grams: "PESTCIL". Phone: 251546-7-94.

Managing Director: N. S. Rao.

#### Branches:

Allahabad: 15, Park Road, Allahabad-2. Phone: 3642. Amritsar: Madan Mohan Malviya Road, Amritsar.

Phone: 48846.

Bangalore: 12, Saleh Ahmed Building, 105/1, Infantry Road, Post Box No. 23, Bangalore 1. Phone : 23860. Grams : "PESTCIL".

Baroda: 31, Viswas Colony, Alkapuri, Baroda-5. Grams: "FUMIGATION".

Calcutta: 10, Chowringhee Road, Calcutta-13. Phone: 235076. Grams: "PEPESTCIL".
Calicut: 6/49-A, Cannanore Road, West Nadakkavu,

Calicut-13. Phone: 6449.

Chandigarh: House No. 764, Sector 22/A, 'C' Road, Opp. Treasurer, Chandigarh. Phone: 26836.

Cochin: XXIII/1298, M. Gandhi Road, P.O. Box 1730, Ernakulam, Cochin-16. Phone: 31097. Grams: "PESTCIL".
Coimbatore: 177, Jail Road, P.O. Box 1387, Coimbatore 18.
Phone: 25975. Grams: "PESTCIL".

Goa: E-526, Swami Vivekanand Road, P.O. Box 40,

Panaji, Goa.

Hyderabad: 6-1-1070/1, Lakdi-ka-Pul, Raj Bhavan Road, Hyderabad 4. Phone: 35191. Grams: "FUMIGATION". Jamnagar: Laxmi Sadan, Panch Bungalow, Hospital Road,

Jamnagar. Phone: 1654. Kakinada: Old Post Office Street, Opp. Bazar Post Office, Kakinada-I. Phone: 492.

Kanpur: 112/347, Swarup Nagar, Near Market Tower, Kanpur. Phone: 67877

Lucknow: Makkers Villa, 282, Rajendra Nagar, Lucknow.

Phone: 27472.

Madras: 2, Errabalu Chetty Street, P.O. Box 102, Madras I.
Phones: 25109/26497. Grams: "PESTCIL".

Mangalore: M. Gandhi Road, Kodialbail, P.O. Box 131,

Mangalore. Phones: 6906/3451. Grams: "PESTCIL" New Delhi : F-47, N.D.S.E. Part I, Ring Road, New Delhi 49. Phones: 621448/621016. Grams: "PESTCIL"

Pondicherry: 44, Rue Des Bassyns de Richmont, Pondicherry I. Phones: 834/924.

Poona: Alankar Theatre, 1st Floor, Connaught Road, Poona I. Phone: 27757.

Vijayawada: Raosons, Post Box No. 305, Vijayawada-2. Phone: 3478. Grams: "SHELL

Visakhapatnam: 23.35.1, First Floor, Main Road, Visakhapatnam I. Phone: 3709. Grams: "FUMIGATION".

# THE PAPER PRODUCTS LTD.

Pioneers in Flexible Packaging in India. Specialists in Printing, Waxing, Coating, Laminating and Converting, Cellulose Films, Polythene and other Plastic Films, Aluminium Folis and Paper (in Rolls, Sheets, Bags and Pouches). Also manufacturers of Speciality Papers. In Technical Collaboration with Milprint, U.S.A.

Head Office: 13-14, Ajmeri Gate Extension, New Delhi I.

Administrative Office: 120, Dinshaw Vachha Road, Bombay 20. Grams: "PRINTPAK". Central Sales Control Office: Majiwada, Agra Road, Thana, Maha-

Sales Offices:

(1)

Court Chambers, New Marine Lines, Bombay 20. 7, Chittaranjan Avenue, Calcutta 13. 1/25, Asaf Ali Road, Delhi.

60, Chinnathambi Street, Madras I. 785 O.T.C. Road, Chickpet, Bangalore 2. No. 5-1-868 Sadasukh Janakidas Building, Sultan Bazar, Hyder-

abad (A.P.).

(7) Flat No. 21, 15/46A, Civil Lines, Kanpur.

(8) 11, Amul Society, Near Sarada Mandir, Ahmedabad 7.

(9) 198, Builders Colony, Yeshwant Niwas Road, Indore (M.P.).

(10) L-312, Ground Floor, Model Town, Ludhiana (Punjab).

Packaging Plants:

(1) Majiwada, Agra Road, Thana (Maharashtra). (2) 46-A, Velacheri Main Road, Madras 42. (3) 1-9-1124, Azamabad Industrial Area, Hyderabad (A.P.). (4) 14/4, Mathura Road, Faridabad (Haryana).

Paper Mill:

Roha, Dist. Kolaba (Maharashtra).

Subsidiaries:

- Regd. Office: Premier Paper Mills Ltd., 120, Dinshaw Vachha Road, Bombay 20; Roha, Dist. Kolaba (Maharashtra).
- Regd.Office: Printpak Machinery Ltd. 13/14, Ajmeri Gate Extension, New Delhi. Plant: Link Road, Faridabad (Haryana),

Plasticables Private Ltd., 36, Dalal Street, Bombay 1. Platewell Processes Pvt. Ltd., 32, Kailash Darshan, Kennedy Bridge, Bombay 7.

Podar Group of Concerns, Podar Chambers, 109, Syed Abdulla Brelvi Street, Bombay 1.

Polish Ocean Lines, 15/A, Horniman Circle, Bombay-1.

Polson Ltd., 65B, Dockyard Road, Mazagaon, Bombay 10. Polychem Ltd., 7, Jamshedji Tata Road, Bombay 20.

Polydor of India Ltd., Dhan Nur, Sir P. M. Road, Bombay 1.

Polyolefins Industries Ltd., Neville House, Ballard Estate,

Bombay 1. Popular (Imp-Exp.) Trading Co., 113, Medows Street, Bombay 1.

Power Cables Pvt. Ltd., 24, Brelvi Sayed Abdulla Road, Bombay 1.

Power-Gas Corporation Ltd., 254D, Dr. A. Besant Road, Bombay 25.

Poysha Industries Co. Pvt. Ltd., Tiecicon House, Dr. E. Moses Road, Bombay 11.

Prabhat Udyog Ltd., Noble Chambers, S. A. Brelvi Street,

Fort, Bombay 1. Precision Gears Pvt. Ltd., Tiecicon House, Dr. E. Moses Road, Bombay 11.

Precious Electro-Chemindus Pvt. Ltd., Fort House, 40, Police Court Lane, Bombay 1.

Premier Auto Electric Ltd., 69, Dadajee Road, Bombay 34. Premier Automobiles Ltd., Construction House, Ballard Estate, Fort, Bombay 1.

Premier Construction Co. Ltd., Construction House, Ballard Estate, Fort, Bombay 1.

Premier Rubber & Cable Industries, Jamal Building, 211, Nagdevi Street, Bombay 3.

Press Metal Corpn. Pvt. Ltd., Marol Naka, Andheri-Kurla Road, Bombay 59.

Pressure Cookers & Appliances P. Ltd., United India Bldg., Sir P. M. Road, Bombay 1.

Pressure Piling Co. (India) Pvt. Ltd., Savoy Chambers, Wallace Street, Fort, Bombay 1.

Protos Engineering Co. Pvt. Ltd., 173, J. Tata Road, Bombay 20.

Pudumjee Pulp & Paper Mills Ltd., 60, Forbes Street, Fort, Bombay 1.

Pure Drinks Pvt. Ltd., Worli Naka, Bombay 18.

Pure Products & Madhu Canning Ltd., Sion Trombay Road, Bombay 71.

Purshotamdas Madhavani & Co. Private Ltd., 8, Horniman Circle, Fort, Bombay 1.

Purshotam Mathradas & Co. Pvt. Ltd., Union Co-op. Insurance Building, Sir P. Mehta Road, Fort, Bombay 1.

Pyrotenax India Limited, 9, Wallace Street, Fort, Bombay 1.

R. C. Edwards & Co. Pvt. Ltd., 16, Arthur Bunder Road, Colaba, Bombay 5.

Racek Industries Pvt. Ltd., 12-A, Shastri Marg, Bombay 79.

Radia Sons & Co. Pvt. Ltd., Radia House, 6, Rampart Row, Fort, Bombay 1.

Rainbow Ink & Varnish Mfg. Co. Pvt. Ltd., 133-C, Vakola, Santa Cruz (East), Bombay 55.

Raje Industrial & Engineering Combine Private Ltd., Commonwealth Building ", Churchgate Reclamation, Bombay 20.

# ROYAL INSURANCE GROUP

(Royal Insurance Co. Ltd., The London & Lancashire Insurance Co., Ltd., and the Liverpool and London and Globe Insurance Co. Ltd.) All incorporated in England with Liability of Stockholders Limited, 12, Jamshedji Tata Road, Bombay-20 BR.

Profits - Motor - Accident - Engi-Loss of (Fire, neering - Aviation - Marine).

Assistant Manager for India: R. A. Isaac.

Branch Manager: J. N. Engineer.

Phone: 296220. Grams: "ROYAL".

P.O. Box: 11048

Head Office: I, North John Street, Liverpool, England.

RALLIS INDIA LIMITED

Bombay Registered Head Office : Ralli House, 21, Ravelin Street, Fort, Bombay 1. P.O. Box 166. Telephone No.: 26-8221 (10 lines). Tel. Address: "RALLI." Telex.: 2357.

Calcutta Office :

16, Hare Street, Calcutta 1.
Phone No. 234351 (7 lines). Tel. Address: "RALLI".
Telex: 201.

Madras Office :

Ralli House, 320, Linghi Chetty Street, Madras 1. Phone No.: 29281 (6 lines). Tel. Address: "RALLI." Telex: 320.

New Delhi Office:

Marshall House, No. I, Hanuman Road, New Delhi.

Tel. No. 45811/13. Tel. Address.: "RALLI". Telex: 201.

Telex: 201.

Directors: J. D. Choksi (Chairman), A. D. Mango (Managing Director), Brig. B. S. Bhagat, D. K. Gandhi, H. J. Kahn, J. R. Mainwood, K. C. Mahindra, P. A. Narielwala, D. S. Seth, H. J. Silverston, B. R. Tannan. Subsidiaries: Ralli Chemicals Ltd. for manufacture of Superphosphate; Ralliwolf Ltd. for manufacture of Wolf Electric Tools; Searle (India) Limited, for manufacture of Basic Chemicals and Steroids; Hemalatha Tootilles Ltd. for spinning cotton warns; W. T. latha Textiles Ltd. for spinning cotton yarns; W. T. Suren & Co. Ltd. for manufacture of pharmaceuticals.

Associated Companies: Boehringer-Knoll Ltd. for manufacture of Pharmaceutical Products, including Antibiotics; Protein Products of India Limited, for manufacture of gelatine and ossein; Rockwell India Limited, for manufacture of metal and woodworking machinery.



# RAJMAL PAHARCHAND

Associate Firms:

SHIV SILK MILLS

SHIV EMBROIDERY MANUFACTURING CO. SHIV LACE MANUFACTURING CO. ESSKAY DYEING & PRINTING WORKS SANIV TEXTILES & PRINTING WORKS AARPEE INTERNATIONAL

Address:

91, Shalimar, G. Road, Marine Drive, Bombay 2.

Mills :

S. V. Road, Mira, Dahisar, Bombay 68.

Telephones: Office: 296931-292380 & 293291.

Mills: 661102, 661593 & 662115.

Telex No.: "AARPEE BY 011-2784".

Grams: "RANIVOILE," Bombay.

"NYLOCREPE", Bombay.

Managing Partner:

Shri Shamsunder Khanna.

Partners:

Shri Brimohan Khanna, Shri Shivkumar Khanna

# RICHARDSON & CRUDDAS

#### LIMITED

(Estd. 1858).

STRUCTURAL AND MECHANICAL ENGINEERS, IRON AND BRASS FOUNDERS, SANITARY AND REFRIGERATION ENGINEERS, TOWER MANU-REFRIGERATION FACTURERS, METALS, MACHINERY AND HARD-WARE MERCHANTS.

## Registered Office:

Hindusthan Buildings, 4 Chittaranjan Avenue, Calcutta 13.

Head Office and Works:

Byculla Ironworks, Post Box 4503, Byculla, Bombay 8.

Branch Office and Works:

(1) First Line Beach, Post Box 1276, Madras 1.

(2) M.I.D.C. Industrial Estate, Hingna Road, P.O. Jaitala, Nagpur.

Telegrams: (1) "CIVILWORKS", Calcutta.

(2) "IRONWORKS", Bombay, Madras and Nagpur.

Telephone Nos.: 370011 (Bombay), 22401 (Madras), 31526 (Nagpur).

Head Office & Works: Bombay.

Chairman: R. N. Sen. F.C.A.

Resident Director: T. S. Kannan, I.A. & A.S.

General Manager: W. F. Fernandes, B.Sc., B.E., M.I.E., J.P.

Chief Technical Manager: L. C. Chib, M.I. Mech. E. (London).

Structural Engineering Dept.: Asst. Manager (Strl.); P. V. Naik, B.E., A.M.I.E.; Assistants: B. R. Damania; R. D'Silva; O. D'Souza.

Mechanical Engineering Dept.: Dy. Manager (Mech.), P. Simon, L.M.E.; Assistants: B. A. Ghadiali, C. Ghadiali, N. D. Panchel.

Assistant Manager (Production): M. A. Krishnamurthy, B.E. (Mech.).

Chief Accountant : B. J. Suntook, A.C.A.

Personnel Officer: K. P. Mahale.

Metals & Agencies Dept.: A. C. Kuriakose.

Sanitary Engineering Dept. : R. J. Meyers.

Works: K. Deva Rao, B.Sc., Met.; M. J. Bilimoria; C. A. S. Sopher; P. V. Sawai; R. D'Cruz; R. D. LaPorte.

## BRANCH OFFICE & WORKS, MADRAS:

Branch Manager: F. C. Mathias, B.E. (Civil).

Assistants: T. C. Sundaram, B.A., A.I.C.W.A.; H. M. Sonu Rao ; T. K. Rama Rao, B.E. (Mech.) ; R. N. Vadivel ; R. C. Ramaswamy.

#### NAGPUR WORKS:

Assistant Manager: D. H. Kale.

# REMINGTON RAND

Manufacturers of:
"REMINGTON RAND"
BUSINESS EQUIPMENT

## Bombay Office:

Mehta Mahal, 15, Mathew Road, Bombay 4.

Phone: 369261.

#### Head Office:

Remington House, 3, Council House Street, Calcutta.
Phone: 237401 (10 lines).

#### Branches at:

MADRAS: 35/5, Mount Road, Madras 2.

Phone: 86484.

NEW DELHI: Jivan Vihar, 3 Parliament Street,

New Delhi.

Phone: 46419 & 42761.

LUCKNOW: 19, Mall Avenue, Lucknow.

Phone: 28211 & 28212.

Telegraphic Address:
"REMINGTONS" all Offices.

Rallis India Ltd., Ralli House, 21, Ravelin Street, Fort, Bombay 1.

Ramon & Demm Ltd., 79, Apollo Street, Bombay 1.

Rane Pvt. Ltd., New Queen's Road, Bombay 4.

Rasiklal & Company, Peerbhoy Building, 89, Princess Street, Bombay 2.

Rastriya Metal Industries Ltd., Kurla Road, P. O. J. B. Nagar, Andheri, Bombay 59.

Raval & Co., Shreeji Bhavan, Lohar Chawl, Bombay 2.

Ravi Marble Corporation, 31, Hamam Street, Bombay-1. Ravindra Heraeus Ltd., Shanti Nagar, Pipeline, Vakola,

Ravindra Heraeus Ltd., Shanti Nagar, Pipeline, Vakola Santa Cruz (East), Bombay 55.

Record Electricals Pvt. Ltd., 30 Industrial Estate, M. G. Road, Kandivli (West), Bombay 67.

Recondo Ltd., Jeevan Sahakar, Sir P. M. Road, Bombay 1. Remington Rand of India Ltd., Mehta Mahal, 15, Mathew Road, Bombay 4.

Reunion Engineering Co. Private Ltd., Amar Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Richardson & Cruddas Ltd., Byculla Iron Works, Byculla, Bombay 8.

Roberts, McLean & Co. Ltd., Ilaco House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Roneo Vickers (India) Ltd., 39, Bastion Road, Bombay 1. Rowe & Rowe, 381, Dr. D. Naoroji Road, Bombay 1.

Royal Industrial & Commercial Co. Pvt. Ltd., 81-83, Mint Road, Bombay 1.

Ruby Coach Builders Private Ltd., 75, Dr. Annie Besant Road, Worli, Bombay-18.

Ruston & Hornsby (India) Ltd., 1, Forbes Street, Bombay 1. Ruttonsha Simpson Pvt. Ltd., International House, Bombay-Agra Road, Vikroli, Bombay 83.

S. H. Benson (India) Pvt. Ltd., Steelerete House, Dinshaw Vatchha Road, Bombay 20.

Safeglas Corporation Private Ltd., 95, Dhanji Street, Bombay 3.

Sandoz (India) Limited, Sandoz House, Dr. Annie Besant Road, Bombay 18 W.B.

Sandvik Asia Ltd., Sudama House, Ballard Estate, Bombay 1.

Sapt Textile Products (India) Private Ltd., Sapt Building, Graham Road, Ballard Estate, Bombay 1.

Sardesai Brothers Ltd., 82, Advent, 12-A Foreshore Road, Bombay 1.

Sarvodaya Reeds Manufacturing Co., 173/141, Samuel Street, Bombay-9.

Saurashtra Wire Healds Mfg. Co. Private Ltd., Sanghvi Chambers, Ghega Street, Bombay 1.

Savita Chemicals Pvt. Ltd., Commissariat Building, 231, Dr. Dadabhoy Naoroji Road, Bombay 1.

Scindia Steam Navigation Co., Ltd., Scindia House, Ballard Estate, Bombay 1.

Sen & Pandit Pvt. Ltd., Prospect Chambers, 317/321, Dr. D. N. Road, Bombay 1.

Sepulchre Brothers (India) Ltd., 210, Dr. Dadabhoy Naoroji Road, Bombay-1.

Sethisons Pvt. Ltd., 159, Colaba Road, Bombay 5.

Suresh Electrical Industries, Roshan Nagar, Chandavarkar Lane, Borivli, Bombay 92.

Sewri Engineering Construction Co. Pvt. Ltd., Savoy Chambers, Wallace Street, Fort, Bombay 1.

# SPENCER & CO. LTD.

Spencer's Building, Forjett Street, Off Gowalia Tank, Bombay 26.

Importers & Exporters, Cold Storage Suppliers. Wholesale Wine & Spirit Merchants. Tea Merchants and Cigar Manufacturers. Sole Distributors for Kelvinator Refrigerators and Belaire Air Conditioners. Phone: 362861. Grams: "PORTEDOS".

Head Office: Mount Road, Madras.
U.K. Purchase Department, Spencer & Co., Ltd., 55/56 Broad Street Avenue, London E.C. 2.

Bombay Manager: Dev Raj. Assistant: J. C. R. Readymoney.

Assistant: J. C. K. Readymoney.
Sole Distributors:
A. & A. Crawford Ltd., Leith.
Beck & Co., Bremen.
Bollinger, J., France.
Boord & Son Ltd., London.
Canada Packers Ltd., Toronto.
Canadian Breweries Ltd., Toronto.
Distillers Agency Ltd., Edinburgh.
Drambule Liqueur Co. Ltd., Edinburgh.
Huntley & Palmers Ltd., Reading.
John Haig & Co. Ltd., Markinch.

Lanson Pere et Fils, Reims. Martell & Co., Cognac.

Kelvinator International Corporation, U.S.A. Kelvinator Ltd., Bromborough, England.

Ronson Products Ltd., London. Sandeman, George G. & Sons & Co. Ltd., London.

Sandeman, George G. & Sons & Co. Ltd., London.

Tennent J. & R. Ltd., Glasgow. Whiteways Cyder Co. Ltd., England.

Shah Construction Co. Ltd., 198, Jamshedji Tata Road, Bombay 20.

Shah Malleable Castings Ltd., Ashok Chambers, Broach Street, Bombay 9.

Shah Trading Corporation, Oomrigar Building, opp. Crawford Market, Bombay 3.

Shalebhoy Tyebjee & Sons, 12, Bruce Street, Bombay 1. Shalimar Tar Products (1935) Ltd., 16, Bank Street, Fort, Bombay 1.

Shamsher Sterling Cable Corporation Ltd., Vaswani Mansion, Dinsha Vacha Road, Bombay 20.

Shapoorji Pallonji & Co. Pvt. Ltd., 70, Medows Street, Bombay 1.

Shaparia Dock & Steel Co. Private Ltd., Sewree Fort Road, Bombay 15.

Shavo Norgren (India) Pvt. Ltd., 9, Wallace Street, Fort, Bombay 1.

Shetty Chemical & Engineering Works Private Ltd., 43, Tamarind Street, Bombay 1.

Shishir & Co., 140, N. Master Road, Bombay 1.

Shree Digvijay Cement Co. Ltd., Shreenivas House, Waudby Road, Fort, Bombay 1.

Shree Jagdish Oil Industries Pvt. Ltd., 281/287, Narsi Natha Street, Kanmoor House, Bombay 9.

Shree Karnatak Agencies, Western India House, Sir P. M. Road, Bombay 1.

Shree Mahavir Electric Trading Co., 182, Zaveri Bazar, Bombay 2.

Shree Prabhadevi Dyes & Chemical Co. Pvt. Ltd., 17, Asha Mahal, 46, Peddar Road, Bombay 26.

Shukla-Manseta Industries Pvt. Ltd., 24-B, Hamam Street, Bombay 1.

Siemens India Ltd., 134A, Annie Besant Road, Bombay 18.

# SURAT ELECTRICITY CO. LTD.

Registered Office: Killick House, Home Street, Fort, Bombay I.

Administrative Office: Central Administration Department, No. 5, Graham Road (4th Floor), Ballard Estate, Bombay I.

Telegraphic Address: "ADISEBS".

Phones: 261741, 261742 & 261743.

Local Office: Station Road, Post Box No. 20, Surat (Ref. Surat Section).

# S. H. BENSON (INDIA) PVT. LTD.

Managing Director: Mr. H. N. Mukerjie.

Bombay: Steelcrete House, Dinsha Wacha Road, Bombay 20. Tel. No. 295124.

Calcutta: Benson House, I Auckland Place, Calcutta 17. Tel. Nos. 449761/2/3.

Madras: 3/18, Mount Road, Madras 2. Tel. No. 83641.

Delhi: Allahabad Bank Building, 17, Parliament Street, New Delhi I. Tel. No. 48801.

London: 129, Kingsway, London W.C. 2.

#### **BALL & ROLLER BEARINGS**

# SUESSEN TEXTILE BEARINGS LTD.

Regd. Office:

Bombay-Ahmedabad National Highway No. 8, Baroda 9.

Liaison Office:

Dhanraj Mahal, Apollo Bunder Road, Fort, Bombay 1.

Manufacturers of:

Textile Spinning Machinery, Ball & Roller Bearings, etc. in technical collaboration with Messrs. Spindelfabrik Suessen, Schurr, Stanlecker & Grill GmbH, Suessen, West Germany.

#### Board of Directors:

A. N. Lalbhai (Chairman).

G. D. Somani.

C. M. Khatau.

H. C. Kothari. H. C. Mahindra.

I. P. Thacker.

Johannes Schurr.

J. Fischer (Alternate Director) Technical Manager).

Hans Stahlecker.

R. A. Shah (Alternate Director).

M. D. Mehta.

C. J. Mehta.

G. W. Golding (Jt. Mg. Director). S. M. Mehta (Jt. Mg. Director).

Sigil (India) Services Pvt. Ltd., 381, Dadabhoy Nowroji Road, Ismail Building, Bombay 1.

Sima Trading Co. (India), Nafees Chambers, Carnac Road, Bombay 1.

Simac Group (I.) P. Ltd., 5, Sidhpura Ind. Estate, Goregaon West, Bombay 62.

Singer Sewing Machine Company, Singer Building, 207, D. N. Road, Bombay 1.

Sirdar Carbonic Gas Co. Ltd., Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

SKF Ball Bearing Co. Pyt. Ltd., Mahatma Gandhi Memorial Building, Netaji Subhas Road, Bombay 2.

S. K. Kabbur Pvt. Ltd., 3, Bastion Road, Fort, Bombay 1.
Skoda (India) Pvt. Ltd., Vulcan Ins. Bldg., Veer Nariman Road, Bombay 20.

SLM-Maneklal Industries Ltd., Vaswani Mansion, D. Vatchha Road, Bombay 20.

Smidth, F. F., & Co. (Bombay) Pvt. Ltd., 124/D, Maharshi Karve Road, Bombay 20.

Solid Containers Ltd., Tiecicon House, Dr. E. Moses Road, Bombay 11.

South-East Asia Shipping Co. Pvt. Ltd., Himalaya House, D. N. Road, Fort, Bombay 1.

Special Steels Ltd., Dattapara Road, Borivli (East), Bombay 92.

Spencer & Co. Ltd., Spencer's Building, Forjett Street, Off Gowalia Tank, Bombay 26.

Star Metal Refinery Pvt. Ltd., 361, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Star Textile Engineering Works Ltd., Dhanraj Mahal, Chhatrapati Shivaji Maharaj Marg, Bombay 1.

# SANDOZ (INDIA) LIMITED

Registered Office:

SANDOZ House, Dr. Annie Besant Road, Worli, Bombay 18 WB.

Manufacturers (under Licence from SANDOZ Limited, Switzerland), Importers, Exporters and Distributors of Agrochemicals, Chemicals, Dyestuffs, Pharmaceuticals and Alkaloids.

Head Office: SANDOZ House, Dr. Annie Besant Road, Worli, Bombay 18 WB. Phone: 379941 (10 Lines). Grams: "SANDOPHARM, SANDYE."

Administration Divn.: K. Reiser, B. D. Irani, S. C. Kaji, S. J. Kanga, N. K. Khare, V. A. Udwadia.

Dyes & Chemicals Divn.: Mr. E. Strobel, E. E. Eichenberger, S. M. Bhagwate, J. N. Bilimoria, S. P. Chandavarkar.

Pharmaceutical & Agrochemicals Divn.: Dr. J. N. Banerjee, Dr. S. K. Bhattacharya, M. M. Bhasin, B. Chitharanjan, Y. Curmally, H. H. Datoobhoy, P. D'Souza, A. K. Nehru, Dr. K. R. Patel, J. Samuel, Ganga Singh, Mrs. R. Vaidya, Dr. V. Vasudevjah.

Factory: Sandoz Bagh, Kolshet, Dist. Thana. Phone: 594161. R. Datta, N. N. Bhattacharya, Dr. N. F. Desai, V. Dharmaraj, Dr. S. B. Patel, C. B. Sheth.

Sales Offices: Ahmedabad, Bangalore, Bombay, Calcuttae Cuttack, Ernakulam, Gauhati, Hyderabad, Indore, Jaipur, Lucknow, Madras, New Delhi, Patna, Srinagar, Vijayawada.

# SEWRI ENGINEERING CONSTRUC-TION CO. PVT. LTD.

Civil Engineers, Designers & Constructional Engineers.

Office: Savoy Chambers, West Wing, Wallace Street, Fort, Bombay I.

Phone: 263941 (2 lines), Post Box No. 319, Bombay 1.

Grams: "TIROD", Bombay.

Godown: 222, New Sewri Road, Cotton Green, Bombay 33.

Phone: 441485.

Managing Director: C. V. Deshpande, B.E., F.I. Struct. E. (Lond.), F.Am.Soc. C.E., M.I.E. (Ind.), C. Eng., F.R.S.H.

Technical Directors: P. R. Tongaonkar, B.E., M.I.E. (Ind.), M.Am.Soc. C.E., S. C. Deshpande, B.Sc. (Eng.), Lond., M.Phil. (Lond.) and V. C. Deshpande, B.Sc. Eng. Hon. (Lond.).

Engineers: M. J. Padwal, B.E., R. T. Pawar, B.E., H. J. Mantry, R. G. Vagholikar, B.E., A. H. Supnekar, B.E., R. R. Kotwal, B.E., V. N. Bhat, B.E.

# DON'T TURN THE PAGE... STOP HERE FOR ENGINEERING CONSULTATION SERVICES AND FABRICATION OF EQUIPMENT

# SARABHAI ENGINEERING GROUP

offers Engineering Consultation Services for Chemical, Pharmaceutical and Allied Industries; Feasibility Reports/Project Planning and Designing/Supervision of Project Execution Undertaken.

### SARABHAI MACHINERY

(a Division of Sarabhai Engineering Group) fabricates equipment for Chemical, Pharmaceutical, Textile and other Allied Industries.

Sole Distributors: Bakubhai Ambalal Pvt. Ltd.

13 Walchand Hirachand Marg, Ballard Estate, Bombay 1.

Also at: Ahmedabad - Calcutta - New Delhi - Madras Hyderabad - Indore - Cochin.

# SHAW WALLACE & CO. LTD.

Merchants, Agents and Manufacturers.

3. Walchand Hirachand Marg. Ballard Estate, Bombay 1.

Codes Used: Acme, Bentley's complete Phrase Code and Second Phrase Code.

Tel. Address: (General): "Shawlace", (Shipping): "Shawport", (Ship Chartering, Sales and Purchase): "Shawschart", (Hansa Line): "Hansalace".

Telex No. 0112359.

Phone Nos.: 264051 to 264055.

Post Box No. 203.

Head Office: 4, Bankshall Street, Calcutta-1.

Branch Offices: Gulab Bhavan, Bahadurshah Zafar Marg,

New Delhi I.

8/9, Thambu Chetty Street, Madras I.

London Correspondents: R. G. Shaw & Company Ltd., 19, Leadenhall Street, London, E.C. 3. (Telegram: "AUGHT", London).

Bombay Director: G. Crasemann, Resi. Tel. 212773.

Asstt. Branch Manager: G. P. Oomman, Resi. Tel. 211487.

Shipping: W. Haenig (Hansaline), Resi. Tel. 365770. N. Mascarenhas, Resi. Tel. 292222.

Accounts : M. Ray.

Administration : B. Banerjee.

Wines & Spirits Sales: R. S. Mehta.

Steatite (Export & Local) Sales: C. I. D'Souza.

Yeast Sales : M. Ferrao.

## **AGENTS**

Shipping — Cargo Service: Deutsche Dampfschiff-fahrts-Gesellschaft "Hansa", Bremen. (India/North Continental and Red Sea Ports).

Ratnakar Shipping Co. Ltd., Calcutta.

Hellenic Lines Ltd., Piraeus, Greece and New York. (India/Red Sea/Middle East and U.S.A. Ports).

Passenger Service: Norddeutscher Lloyd, Bremen (Continent/U.S.A.).

Yeast: The Indian Yeast Co. Ltd., Calcutta ("Tower" Brand Bakers' Yeast, Vitamite and Pharmaceutical Yeast).

Steatite: Soapstone (Talcum Powder and Lumps): S. Zoraster & Co., Jaipur.

Sundry: Allan Whyte & Co. Ltd., Glasgow (Unit, British Ropes Ltd.) (Wire Ropes). The Steel Co. of Wales Ltd., London (Tinplates). American Cyanamid Co. Inc., New York ("Cyanogas" Calcium Cyanide for Plague Control).

#### Attorneys:

Queensland Insurance Co. Ltd.

#### Manufacturers

Haywards Liquors & Liqueurs: The Bengal Distilleries, Bhadrakali, Dist. Hooghly, Nr. Calcutta.

Haywards "Golconda" Brandy & Wines: The Andhra Winery & Distillery, Malkajgiri, Secunderabad, A.P.

# SOLID CONTAINERS LIMITED

MANUFACTURERS OF MILL BOARD AND SOLID FIBRE BOARD CASES

## Registered Office:

Tiecicon House, Dr. E. Moses Road, Bombay 11 (BC). Phone: 373129. Grams: "LAMIBOARD".

#### Factory:

Vadavli, P. O. Mohone, Kalyan, Dist. Thana.

Phone: 562 (Kalyan). Grams: "SOLICON".

#### Board of Directors :

Jayantilal Ranchordas Mehta, Chairman. Rasesh Navinchandra Mafatlal. Arvindkumar Nandlal Kilachand. Dayanand Chandulal Kothari. Minocher Kaekobad Tata. Damodar Maganlal Ghia. Jayvadan Jayantilal Ghia. Dhananjaya Ranchordas Mehta. Ranjit Rai Khullar. Pratap Ratilal Parekh, Managing Director. Ashok Navinitlal Chokshi, Managing Director.

> Secretary & Chief Accountant: Rajnikant Ranchhoddas Udeshi.

Starch & Allied Industries, 310, Narshi Natha Street, Bombay 9.

States People Pvt. Ltd., Janmabhoomi Bhavan, Ghogha Street, Bombay 1.

Steel Age Industries Private Ltd., Mascarenhas Road, Bombay 10.

Steel Industries of Hindustan Ltd., Magazine Street, Darukhana, Bombay 10.

Steel Plant Pvt. Ltd., 205, Dr. A. Besant Road, Bombay 18.

Stretchlon Pvt. Ltd., Bombay Cotton Mills Estate, Kalachowki Road, Bombay 33.

Stronach & Co. (India) Private Ltd., L.A., 15, Graham Road, Ballard Estate, Bombay 1.

Suessen Textile Bearings Ltd., Tiecicon House, Moses Road, Bombay 11.

Suhrid Geigy Trading Ltd., Express Building, 'E' Road, Bombay 20.

Super Tool Co. Pvt. Ltd., Kalina, Santacruz, 'East', Bombay 29.

Supreme Industries Ltd., Old Lakshmi Mills Compound, Wadala, Bombay 31.

Synthetics & Chemicals Ltd., 7, Jamshedji Tata Road, Bombay 20.

Tahira Industries (India) Pvt. Ltd., 19-21, Manohardas Street, Opp. G.P.O., Bombay 1.

Tak Machinery Ltd., Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay 1.

Talwalker Brothers Private Limited, W. R. Lentin Chambers, Dalal Street, Fort, Bombay 1.

Tambawalla Products Agencies Private Ltd., 66, Narayan Dhuru Street, Bombay 3.

# TATA FISON INDUSTRIES LIMITED

Regd. Office, Head Office and Spraying Service Section 21, Ravelin Street, Fort, Bombay-1.

Telephones: 262936-37-38, 268221 (Spraying Service Section). Telegraphic Address: "TATFISON" Bombay.

Regional Office:

Union Bank Building, Dalal Street, Fort, Bombay I Telephones: 259054-55, 290742, 253131. Telegraphic Address: "TATFISON", Bombay.

#### Directors :

J. D. Choksi (Chairman).

A. D. Mango (Deputy Chairman).

H. J. Kahn

D. S. Seth

A. B. Billimoria

N. V. Khote (Managing Director).

## Manufacturers of:

- (I) Agricultural and Household Pesticides,
- (2) Ethical Pharmaceutical Products.

Distributors in India:

Rallis India Limited of Agricultural Pesticides and Ethical Pharmaceutical products.

## TATA SONS PRIVATE LTD.

Bombay House, 24, Bruce Street, Fort, Bombay I.

Directors: J. R. D. Tata (Chairman)

N. H. Tata

I. D. Choksi

D. R. D. Tata

Sir lehangir Ghandy

S. Moolgaokar

R. D. Choksi

N. A. Palkhivala

Secretary: N. K. Desai.

Corresponding Firms:

Tata Limited, 18 Grosvenor Place.

London, S.W.I. Tel. Address: "TATALD".

Tata Incorporated, 425 Park Avenue,

New York, N.Y. 10022. Tel. Address: "TATAINC".

Tata A.G., 20 Poststrasse, Zug, Switzerland.

Tel. Address: "TATAG", Zug.

Codes used: Bentley's.

Telegraphic Address: "TATASONS".

Phone Nos. 259131 & 258453. P. O. Box No. 186.

# TATA HYDRO-ELECTRIC AGENCIES

Bombay House, 24, Bruce Street, Fort, Bombay I.

#### Directors:

J. R. D. Tata (Chairman).

J. D. Choksi.

N. H. Tata.

M. G. R. Aitken.

S. Moolgaokar.

R. G. Saraiya.

P. M. Agerwala.

#### Secretary:

N. K. Desai.

Tel. Address: "THEBAMCO".

Phone Nos.: 259131 & 258453.

Code used: Bentley's.

#### TATA INDUSTRIES PVT. LTD.

Bombay House, 24, Bruce Street, Fort, Bombay I.

Directors : J. R. D. Tata (Chairman)

N. H. Tata

D. R. D. Tata

P. A. Narielwala

S. Moolgaokar

R. D. Choksi

N. A. Palkhivala

B. Sh. Saklatvala

S. K. Nanavati

R. S. Pande

J. J. Bhabha

N. R. Mody

R. F. S. Talyarkhan R. H. Mody

D. S. Seth

P. M. Agerwala

A. B. Bilimoria

A. H. Tobaccowala

M. A. Wadud

Secretary: N. K. Desai

Corresponding Firms:

Tata Limited, 18 Grosvenor Place, London, S.W.1. Tel. Address.: "TATALD".

New York, N.Y. 10022. Tel. Address: "TATALD.".

Tata Incorporated, 425 Park Avenue.

New York, N.Y. 10022. Tel. Address: "TATAINC".

Tata A.G., 20 Poststrasse, Zug, Switzerland.

Tel. Address: "TATAG", Zug.

Codes used: Bentley's.

Telegraphic Address: "TATIND". Phone Nos.: 259131 & 258453.

# TURNER, MORRISON & CO., LTD.

16, Bank Street.

Directors—Calcutta: B. P. Sinha, K. N. Tapuriah, Rani Padmayati Devi, M.P., and S. B. Goenka.

Assistants, Bombay: M. V. Bhave (Holds Power of Attorney), J. T. DeLorme (Holds Power of Attorney), Dr. R. M. Agarwal and A. K. G. Unny.

Proprietors: The Malet Welding Works, Welding Works and Tube Mill.

Agents: For numerous Shipping Companies and Shalimar Tar Products (1935) Ltd., Scottish Union and National Insurance Co. (Fire and Accident), The Maritime Insurance Co., Ltd. (Incorporated in England.)

Codes used.—A.B.C. 6th Edition, Bentley's, Bentley's Second, Scott's, Boe Old and New and Private.

Tel. Address: "Morrisons." Phone Nos. 251321/6 (Six Lines). P.O. Box No. 194.

Tata Engineering & Locomotive Co. Ltd., Bombay House, 24, Bruce Street, Bombay 1.

Tata Fison Industries Ltd., 21, Ravelin Street, Fort, Bombay 1.

Tata Hydro-Electric Agencies Ltd., Bombay House, 24, Bruce Street, Fort, Bombay 1.

Tata Industries Pvt. Ltd., Bombay House, 24, Bruce Street, Fort, Bombay 1.

Tata Iron & Steel Co. Ltd., Bombay House, Bruce Street, Bombay 1.

Tata Oil Mills Co. Ltd., Bombay House, 24, Bruce Street, Fort, Bombay 1.

Tata Sons Pvt. Ltd., Bombay House, 24, Bruce Street, Fort, Bombay 1.

Teknoworks (India), Agra Road, Bandup, Bombay 78.

Telecom Industries Pvt. Ltd., 61, Dr. S. S. Rau Road, Bombay 12.

Tempo Industrial Corporation, 394, Lamington Road, Bombay 4.

Tenby India Pvt. Ltd., Hamam House, Hamam Street, Bombay 1.

Tensile Steel Ltd., 198, Churchgate Reclamation, Bombay 20.

Testeels Ltd., 317/321, Dr. Dadabhoy Naoroji Road, Bombay 1.

Textile Machinery Corporation Ltd., 254, A. Besant Road, Bombay 25.

Thacker & Co. Ltd., Evergreen Industrial Estate, Shakti Mill Lane, Mahalaxmi, Bombay 11.

Thomas Cook & Son Ltd., Cooks Bldg., Dr. D. N. Road, Bombay 1.

T. Maneklal Manufacturing Co. Ltd., Vaswani Mansion, Dinshaw Vachha Road, Bombay 20.

# TATA OIL MILLS CO. LTD.

(Established in 1917)

## Head Office:

Bombay House, 24, Bruce Street, Fort, Bombay I.

#### Works:

Bombay, Calcutta, Tatapuram (Kerala), Ghaziabad (U.P.),
Madras & Calicut (Kerala).

Phone: H.O. 259131.

Grams: "TATOILS".

#### Manufacturers of :

Laundry and toilet soaps, detergents, glycerine, oils and oil-cakes, edible oils, industrial perfumes, eau-de-cologne, hair oils, food products, sea foods and animal feeds.

# TATA ENGINEERING & LOCOMOTIVE CO. LTD.

Head Office: Bombay House, 24, Bruce Street, Bombay I.

Sales Office: 148, Mahatma Gandhi Road, Bombay I. Export Department: Shivsagar Estate, Worli, Bombay 18.

Works: Jamshedpur and Poona.

Directors: J. R. D. Tata, Chairman; S. Moolgaokar (Vice Chairman & Managing Director); J. Zahn; N. K. Suntook; N. N. Wadia; N. H. Tata; N. P. Godrej; B. C. Ganguli; A. H. Tobaccowala; R. H. Broacha; Y. K. Khanna. Manufacturers of: "Tata" Diesel Commercial vehi-

Manufacturers of: "Tata" Diesel Commercial vehicles, steel and alloy, iron castings, special steel ingots, Tata P & H excavators, diesel shunters, (large press) tools and dies, general purpose machine tools, and special purpose machines, (fork lift trucks).

Subscribed Share Capital: Rs. 18,45,00,000

(£10,148,000 or \$24,600,000).

Debentures: Rs. 10,00,000 (£55,000 or \$13,334,000).

Total Annual Sales: Rs. 1,05,90,15,000 (1968-69) (£58,252,000 or \$141,202,000).

No. of employees: 24,000.

Telegraphic Address: Head Office: "TATALOCO".
Sales Office: "TELCOSALES".
Export Dept.: "TELCOEXPO".

Telephone Nos. Head Office: 259131-41, 258453. Sales Office: 253977/78/79, 254118, 254281. Export Dept.: 376226, 376269, 376037.

Telex No.: Tlx. HO Tlx. 2618 and Tlx. 2731.

Sales Office: Tlx. 3223. Export Dept.: Tlx. 2716.

# TURNER, HOARE & CO., LTD.

Manufacturers, Distributors, Engineers, Importers and Exporters

Head Office:

Wavell House, 15, Graham Road, Ballard Estate, Bombay-1. Phone: 262711 (8 lines).

Show-room:

Commercial House, Worli Naka, Bombay-18. Phone: 371051.

Factory:

Signal Hill Avenue, Tank Road, Bombay-33. Phones: 378544-47.

Cable: ENDEAVOUR.

Codes: ACME & BENTLEY'S.

Telex: 2282.

Offices :
Delhi, Calcutta & Madras.

Chairman:

KESHUB MAHINDRA

Executive Director:
P. K. PALIT

#### Manufacture:

Thermal Power Station Equipments such as Travelling Water Screens, Ash Handling Plants & Automobile Clutch Assemblies, Generating Sets, Super Centrifuges, Mineral Oil Purifiers, Vegetable Oil Refining Plants, etc.

#### Distribution:

Heavy & Light Machine Tools of all types, Tools Bits, Tool & Alloy Steel, Printing Machinery, Agricultural & Industrial Chemicals, Fertilizers, Material Handling Equipment, Fork Lift Trucks, Shovels, Garage Equipment, Compressor Sets, Pump Sets, Electric Motors, Batteries, Automotive Starters & Dynamos, Refrigeration & Dairy Equipment, Water Meters etc.

## Export & Import :

Cashew Kernels, Airconditioners, Chemicals & Drugs, Milk Powder, Sulphur, Fertilisers, etc.

# THE TATA IRON AND STEEL COMPANY LIMITED

Registered Office:

Bombay House, 24, Bruce Street, Fort, Bombay I.

Grams: "IRONCO". Phones: 259131 & 258453

1 11011C3 . 237131 & 23

Jamshedpur Office :
Grams : "TATAIRON ".

Steel Works:

Situated at Jamshedpur, Bihar.

(Rly. Stn.: Tatanagar, South Eastern Railway)

Grams: "IRONCO".

Head Sales Office:

43, Chowringhee Road, Calcutta 16.

Grams: "IRONCO".

Phone: 448301.

Directors:

Mr. J. R. D. Tata (Chairman)

Mr. S. Moolgaokar (Vice-Chairman)

Mr. J. D. Choksi (Vice-Chairman)

Mr. Dharamsey Mulraj Khatau

Mr. Neville N. Wadia

Sir Fazal Ibrahim Rahimtoola

Mr. Arvind N. Mafatlal

Mr. R. C. Dutt (Government Director)

Mr. H. V. R. lengar

Mr. S. K. Nanavati (Managing Director)

Mr. C. H. Bhabha

Mr. Keshub Mahindra

Mr. R. S. Pande (Executive Director)

Mr. R. H. Mody (Executive Director)

# Manufacturers of :

Coke, Pig Iron, Ferro Manganese, Ingots, Blooms, Billets, Slabs, Sheet Bars, Tin Bars, Rails, Wheels, Tyres and Axles, Structural Shapes, Bars, Plates, Sheets (Black and Galvanised), Skelp, Strip, Electrical Steel Sheets, Pick-axes, Powrahs, Beaters, Crow Bars, Hammers, Shovels, Ballast Rakes, etc. Sulphuric Acid, Coal Tar, Sulphate of Ammonia, Benzol, Benzene, Toluene, Crude Naphthalene, Spent Oil, Bottom Sludge, Solvent Naphtha.

# TENGL

# TRACTOR ENGINEERS LIMITED

(Larsen & Toubro Limited in collaboration with Caterpillar Overseas S.A., Geneva, a wholly owned subsidiary of Caterpillar Tractor Co., U.S.A.).

Registered Office:

L & T House, Ballard Estate, Bombay I.

Phone: 268181. Grams: "TENGELTRAK."

Telex: TLX 2246.

Factory: Saki-Vihar Road, Powai, P.O. Box 8913,

Bombay 72 AS. Phone: 581401.

Manufactures replacement parts for crawler tractors.

Directors: H. Holck-Larsen, N. M. Desai, M. A. Clements, F. N. Grimsley, D. R. Lammers.

Products Distributed by :

Larsen & Toubro Limited, P.O. Box 278, Bombay I. Tractors (India) Limited, P.O. Box 323, Calcutta. Willcox Buckwell India Limited, P.O. Box 289, New Delhi. Tractor & Equipment Corporation Limited, P.O. Box 279, New Delhi.

Todi Industries Pvt. Ltd., Todi Estate, Lower Parel, Bombay 13.

Tractor Engineers Ltd., L & T House, Dougall Road, Ballard Estate, Bombay 1.

Trade-wings Pvt. Ltd., 30/32, Rampart Row, Fort, Bombay 1.

Travancore Rayons Ltd., Khetan Bhavan, Churchgate Reclamation, Bombay 20.

Tribeni Tissues Pvt. Ltd., New Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay 1.

Trinity Electric Syndicate, Princess Street, Bombay 2.

T. T. Krishnamachari & Co., Vulcan Insurance Bldg., Veer Nariman Road, Bombay 20.

Tulsidas Khimji Pvt. Ltd., 46, Veer Nariman Road, Fort, Bombay 1.

Turner Hoare & Co. Ltd., Gateway Bldg., Apollo Bunder, Bombay 1.

Turner Morrison & Co. Ltd., 16, Bank Street, Bombay 1.
 Twilight Products, 139-G, Ghodbunder Road, Agarwal Industrial Estate, Jogeshwari, Bombay 60.

Tyresoles Concessionaires Private Ltd., Ewart House, Bruce Street, Bombay 1.

Ulhas Oil & Chemical Industries Pvt. Ltd., 18, Bruce Street, Fort, Bombay I.

Ultramarine & Pigments Ltd., Kamer Building, Cawasji Patel Street, Bombay 1.

Union Carbide India Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

United Liner Agencies of India Pvt. Ltd., Wavell House, Graham Road, Ballard Estate, Bombay 1. United Steel Co. (India) Pvt. Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

United Wire Ropes Ltd., Vulcan Insurance Bldg., Veer Nariman Road, Bombay 20.

Universal Ferro & Allied Chemicals Ltd., Liberty Building, New Marine Lines, Bombay 20.

Universal Filtration Co. P. Ltd., Commerce House, Medows Street, Bombay 1.

Universal Minerals & Chemical Co., Botawala Building, Horniman Circle, Fort, Bombay 1.

Utkal Machinery Ltd., L. & T. House, Dugal Road, Ballard Estate, Bombay 1.

Vakil & Sons Pvt. Ltd., Narandas Building, Sprott Road, 18, Ballard Estate, Bombay 1.

Variety (Agents) Private Ltd., 15, Cawasji Patel Street, Fort, Bombay 1.

Vasi Shums & Co., Ltd., Vasi Building, Nagdevi Street, Bombay 3.

Vazifdar Builders Pvt. Ltd., A/1, Corinthian, Arthur Bunder Road, Colaba, Bombay 5.

Velu & Co. Pvt. Ltd., P. K., 111, Mahatma Gandhi Road, Bombay I.

Vibronics Pvt. Ltd., 4, Kurla Industrial Estate, Shastri Marg, Bombay 86.

Vickers Sperry of India Ltd., Kandivli East, Bombay 67.
Victor Gaskets India Ltd., S-305 Agra Road, Mulund, Bombay 80.

Victory Flask Co. Pvt. Ltd., 106, S. Devji Street, Bombay 3.

Virchand Panachand & Co. (Bombay) Pvt. Ltd., 272, Narsi Natha Street, Bombay 9.

# ZENITH STEEL PIPES LIMITED

Manufacturers of: Black & Galvanised, Screwed & Socketed, E.R.W. Pipes to ISS 1239/64 in Light, Medium & Heavy Class from dia. ½" to 3" NB.

Also Manufacturers of Precision Industrial Knives, Shear Blades, Chipper Knives, Copper Knives and other cutting Tools.

Registered Office:

Moti Mahal, 195, Churchgate Reclamation, Bombay 20 BR.

Phones: 294445. Grams: "ZENPIPES".

Telex No.: 011-2458.

Factory: Khopoli, Dist. Kolaba (Maharashtra).

#### Directors :

Shri B. K. Birla (Chairman).

Shri S. G. Nevatia.

Shri Dhirajlal Maganlal.

Shri S. M. Mohta.

Shri A. V. Birla.

Shri C. B. Garware.

Shri I. K. Kejriwal.

Shri K. S. Nevatia (Managing Director).

Shri Anil Saraf (Secretary).

# **VOLTAS LIMITED**

19, Graham Road, Ballard Estate, Bombay 1.

Head Office : Bombay 1.

Phone: 268131 (20 lines). Grams: "VOLTAS".

Works: 2nd Pokhran Road, Thana. Phone: 59-1951.

Branches: Bombay 33, Calcutta, New Delhi, Madras, Bangalore.

Sub-Branch: Lucknow.

Offices: Ahmedabad, Bhopal, Bhubaneswar, Chandigarh, Cochin, Coimbatore, Cuttack, Dhanbad, Durgapur, Gauhati, Indore, Jaipur, Jamshedpur, Kanpur, Panaji (Goa), Patna, Raipur, Ranchi, Rourkela, Secunderabad, Trivandrum, Vijayawada and Visakhapatnam.

Directors: Messrs. R. F. S. Talyarkhan (Chairman & Chief Executive), M. R. Bhide (Executive Vice-Chairman and Managing Director), J. D. Choksi, B. Reinhart, P. A. Narielwala, S. K. Handoo, P. C. Cheryan (Executive Director—Sales & Engineering), A. Hydari, A. R. Conway (Alternate Director for B. Reinhart).

General Management: Messrs. R. F. S. Talyarkhan (Chairman & Chief Executive); M. R. Bhide (Executive Vice-Chairman and Managing Director); P. C. Cheryan (Executive Director—Sales & Engineering); Col. T. K. Mukerji (Retd.) (General Manager—Staff & Administration); Rear Admiral Daya Shankar (Retd.) (General Manager—Mfg. & Dev.); N. V. Baxi (Dy. General Manager—Group 1); B. Gupta (Dy. General Manager—Group 2); S. F. Karaka (Dy. General Manager—Group 3); S. A. Buhariwalla (Dy. General Manager—Financial & Accounting Services); S. V. Rao (Dy. General Manager—Liaison, New Delhi); N. C. Parikh (Dy. General Manager, Management Services).

Voltas is India's leading integrated engineering, distribution and manufacturing organisation. It has a turn-over of Rs. 680 million.

Of the Company's 11 Divisions, nine are Engineering Divisions which account for about 62.5 per cent of the Company's total turn-over. The Engineering Divisions handle a wide range of products in the fields of airconditioning and refrigeration, electrical equipment, textile machinery, earth-moving and construction equipment, materials handling, mining machinery, machine tools and agro-industrial products.

The two general merchandising Divisions—Chemicals Division and Pharmaceuticals & Consumer Products Division—handle the distribution of such products as fine, heavy and industrial chemicals, bulk vitamins, processed foods and pharmaceuticals.

Manufacturing represents the third dimension of Voltas' activity. At a 120-acre site at Thana, near Bombay, is the Company's modern Works. Among the products manufactured are: air-conditioning and refrigeration equipment, room air-conditioners, water coolers, domestic refrigerators, electrical overhead travelling cranes, hoists, fork lift trucks, core drilling equipment, and diamond drill bits and power capacitors.

# WILLIAMS, G. & CO., PRIVATE LTD.

902, Mahalaxmi Chambers, 9th Floor, Bhulabhai Desai Road (Warden Road), Bombay 26.

Phones: 367771 & 367772. Grams: "BLANWIRE."

Representing in :-

The Paper, Board, Asbestos, Cement Industries and Textiles, Printing and Filtration Trades.

United Wire Ltd., Edinburgh, Scotland, EH5 1HT, United Kingdom. Manufacturing: Machine Wires & Covers.

W. Green Son & Waite Ltd., Invicta Works, Chalk Pit Avenue, St. Paul's Gray, Kent, England. Manufacturing: Dandy Rolls, 'Electronis' Dandy Drives, Cylinder Mould Covers, Dandy Brackets and Drives, Hand Moulds, Dandy Type Table Rolls.

Vickerys Limited, 53, Norman Road, Greenwich, London S.E. 10, England. *Manufacturing*: Stock Cleaning System, Felt Conditioners, Doctor Blades, etc.

The Spooner Dryer & Engineering Co., Ltd., Ilkley, Yorkshire, England. Manufacturing: Paper Machine Hoods and Coating Dryers.

Asbestos Corporation Ltd., Thetford Mines, Quebec, Canada: Producing: Asbestos Fibre.

Langworthy Bros. & Co., Ltd., 12, Charlotte Street, Manchester I, England. *Manufacturing*: Moleskin, Blowing Wrapper Cloths and Cotton Twill Flannel.

The Dunlop Co., Ltd., Post Box No. 151, Cambridge Street, Manchester I, England. Manufacturing: Offset Rubber Printers Blankets, Rubber Blankets for Controlled Compressive Shrinkage Machines (Sanforizing) and Spreading Jackets for Proofing Industries.

Bauer International Inc., Springfield, Ohio, U.S.A. Manufacturing: Continuous Digesters, Pulping Systems, Screw Presses, Refiners, Centricleaners, Size Reducing units, Auxiliary Equipment, Magnetic Separators.

The Union Screenplate Company of Canada Ltd., 72, Queen Street, Lennoxville, Quebec, Canada. Manufacturing: Phosphor Bronze, Brass and Copper Strainer Plates.

H. J. G. McLean Ltd., P.O. Box No. 202, Brantford, Ontario, Canada. Manufacturing: Stainless Steel Refiners & Beater Bars.

Ernest Scott & Co., Ltd., Leven, Fife, Scotland. Manufacturing: Pulping & Chemical Recovery Plants.

The Dresser Industries, Crane Hoist & Tower Division, Muskegaon, Michigan 49443, U.S.A. Manufacturing: Material Handling Equipment such as Shaw Box and Load Lifter E.O.T. Cranes, Budgit Electric Hoists, Chain Blocks, etc.

Schwabische Huttenwerke G.m.b.H., Postfach 40, 7923, Konigsbronn, West Germany. Manufacturing: Chilled Iron Calender Rolls.

Carl Veit, 7320 Goppingen, Ulmer Strasse 41, Postfach 1349, West Germany. Manufacturing: Paper Machine Felts. Voltas Ltd., 19, Graham Road, Ballard Estate, Bombay 1. V. Pamlays Pvt. Ltd., Sunder Baug Estate, Agra Road, Kurla, Bombay 70.

Vulcan Engineers Pvt. Ltd., Mahalaxmi Chambers, Bhulabhai Desai Road, Bombay 26.

Vulcan-Laval Ltd., Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay 1.

Walchandnagar Industries Ltd., Construction House, Ballard Estate, Bombay 1.

Wandleside National Conductors Ltd., Industrial Estate, Lalbaugh, Bombay 12.

Wanson (India) Pvt. Ltd., Brown Boveri House, 264-65, Dr. A. Besant Road, Bombay 25.

Warden & Co. Pvt. Ltd., Quay Street, Mazagon, Bombay 10.

Warrior (India) Ltd., Forbes Bldg., Home Street, Bombay 1.

Water Supply Specialists Pvt. Ltd., 8, Hamam Street, Fort, Bombay 1.

Watumull Industries Pvt. Ltd., "Delstary", Hughes Road, Bombay 26.

Western India Engineering Corpn. Pvt. Ltd., 68-A, Alli Chambers, Tamarind Lane, Bombay 1.

Western India Manufacturers' Agency Private Ltd., 190, N. Desai Road, Bombay 4.

Western India Match Co. Ltd., Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay 1.

Western India Strip Mills, Agra Road, Bombay 76.

Westinghouse Trading Co. (Asia) Ltd., "The International", 16 M. Karve Road, Bombay 20.

Westerwork Engineers Pvt. Ltd., 15, Bhandup Village Road, Bhandup, Bombay 78.

Wharton, H. W., & Co. Pvt. Ltd., 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

William Jacks & Co. I. Pvt. Ltd., Hamilton House, Graham Road, Ballard Estate, Bombay 1.

Williams, G. & Co. Pvt. Ltd., "Advent", 8th Floor, 12-A, General J. Bhosle Road, Bombay 1.

Williamsons (India) Pvt. Ltd., 10, Veer Nariman Road, Fort, Bombay 1.

Wood-Worths, Commerce Centre, Tardeo, Bombay 34.

Zenith Steel Pipes Ltd., Moti Mahal, 195, Churchgate Reclamation, Bombay 20.

Zenith Tin Works Pvt. Ltd., Opp. Race Course, Clerk Road, Mahalaxmi, Bombay 34.

Zuari Agro Chemicals Ltd., Industry House, Churchgate Reclamation, Bombay 20.

# CLASSIFIED LIST OF TRADES AND PROFESSIONS

#### **ABRASIVES**

Abdealy, B. M. & Co.—127, Sarang Street, Bombay 3. Abrawheel Pvt. Ltd.-107, Sarang Street, Bombay 3. Bharat Engineering Stores.—113, Nagdevi Street, Bom-

bay 3. Bhogilal M. Pandit & Co.—28, Apollo Street, Bombay 1. Carborundum Universal Ltd.—United India Bldgs, 3rd Floor, Sir Phirozeshah Mehta Road, Bombay

Chandrakant Shah & Co.-3, N.D. X Lane, Bombay 1. Chetan Trading Co.-65, Sarang Street, Bombay 3.

Eastern Commercial Trading Co.—Taher Mansion, N.D. Cross Lane, Bombay 3.

Emery (I) Pvt. Ltd.—37, Shamshet Street, Bombay 2.

Engineering Equipment Corpn. 44, Nagdevi Cross Lane, Bombay 3 (B.R.).

Gaytee & Co.-Janmabhoomi Chambers, Fort Street, Bombay 1.

Gillanders Arbuthnot & Co. Ltd.—16, Queen's Road, Bombay 20.

Grindwell Abrasives Ltd.-Karim Chambers, 40, Hamam Street, Fort, Bombay 1.

Hindustan Tools & Engineering Co.—P. O. Box No. 2311, Picket Cross Lane, Bombay 2.

Industrial Abrasive Co-op. Society Ltd.—163, P. D'Mello Road, Bombay 1.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. M. Desai & Co.—163, Narayan Dhuru Street, Bombay 3. Modern Machine Tools Co.-88, Nagdevi Cross Lane, Bombay 3.

Nagdevi Tool-Steel Mart.—186-88, Nagdevi Street, Bombay 3.

P. Ratilal & Co.-43, Dhanji Street, Moti Mahal, Bombay 3.

Parry's (Eastern) Pvt. Ltd.—"Amrita", Nepean Road, Bombay 6.

Shah Trading Corporation.—Oomrigar Building, opp. M. Phule Market, Bombay 3.

Western Abrasives Industries.—67, Nagdevi Street, Bombay 3.

William Jacks & Co. (I.) Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay-1.

#### ADDING AND CALCULATING MACHINES

Adding Machines (India) Pvt. Ltd.—Sohrab House, Dadabhoy Naoroji Road, Fort, Bombay 1.

Burroughs Corporation.—Shorab House, D. N. Road, Bombay 1.

Forbes Forbes Campbell & Co. Ltd.—Latham Division, Forbes Building, Home Street, Fort, Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, P.O. Box 8002, Bombay 56 AS.

National Cash Register Co.—Steelcrete House, Dinsha Wacha Road, Backbay Reclamation, Bombay 20.

P. N. Ganesan Pvt. Ltd.—Kitab Mahal, Dr. Dadahboy Naoroji Road, Bombay 1.

## ADVERTISING AGENTS AND CONSULTANTS

Advertising Agency.—Peerbhoy Bldg. No. 2, 89, S. Gandhi Marg, Bombay 2.

Advertising & Sales Promotion Co.—Steelcrete House, Dinsha Vachha Road, Bombay 20.

Adverts Pvt. Ltd.—Syndicate Bank Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Ajanta Advertising.—Lakshmi Building, Sir Phirozshah Mehta Road, Bombay 1.

Apex Advertising.—371, Dr. D. N. Road, 11, Nanabhai Lane, Bombay 1.

Atomic Advertisers, 208-A, Shivaji Park Road No. 5, Bombav 16.

B. Dattaram & Co.—Readymoney Mansion, Veer Nariman Road, Bombay 1.

Bombay Advertising Society.—Commerce House, 140, N. Master Road, Fort, Bombay 1.

Everest Advertising Pvt Ltd.—Kitab Mahal, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Grants Advertising India Ltd.—Lotus House, Marine Lines, Bombay 20.

Green Advg. Service Agents.—Rustom Building, 29, Veer Nariman Road, Bombay 1.

Gujarat Advertising Agency Pvt. Ltd.—Dahanukar Building, 480, Kalbadevi Road, Bombay 2.

Heros' Publicity Service.—4-B, Vulcan Insurance Bldg., Veer Nariman Road, Bombay 20.

Hindustan Thompson Associates Ltd.—Lakshmi Building, Sir P. M. Road, Bombay 1.

IND Advertising Agency.—15, Commercial Chambers, Masjid Bunder Road-Mohamedally Road Corner, Bombay 3.

Industrial Advertising Agency.—23-25, Hamam Street, Fort, Bombay 1.

Inter Publicity Pvt. Ltd.—Ballard House, Post Box No. 544, Mangalore Street, Bombay 1.

Interads Advtg. Pvt. Ltd.—Manu Mansions, 16, Old Custom House Road, Bombay 1.

Jaisons.—Kakad Chambers, Dr. Annie Besant Road, Worli, Bombay 18.

L. A. Stronach & Co. (India) Pvt. Ltd.—15, Graham Road, Ballard Estate, Bombay 1.

LPE-Aiyars Pvt. Ltd.—Nirmal, Nariman Point, Bombay 20.

Lak Advertising.—43, Gaya Building, 4th floor, 108, Masjid Bunder Road, Bombay 3.

Lintas India Ltd.—Hindustan Lever House, 165, 166, Backbay Reclamation, P. O. Box No. 768, Bombay 20.

Marketing Advg. Associates Pvt. Ltd.—Sassoon Building, 143, Mahatma Gandhi Road, Bombay 1.

Mass Communications & Marketing Pvt. Ltd.—Lalchand Building, 13, Oliver Street, Bombay 1.

Media Agency Pvt. Ltd.—Lentin Chambers, Dalal Street, Bombay 1.

Modern Advertising Bureau.—Opp. Jai Hind Cinema, Bombay 12.

National Ad-Sales Ltd.—Jan Mansion, 61, Sir Phirozshah Mehta Road, Fort, Bombay 1.

National Advertising Service Pvt. Ltd.—Khorshed Building, Sir Phirozshah Mehta Road, Bombay 1.

New India Publicity Co.—Podar Chambers, S. A. Brelvi Road, Fort, Bombay 1.

OAM (Organization for Advertising & Marketing).—512, Arun Chambers, Tardeo Main Road, Bombay 34.

Pearl Publicity 44, Cawasji Patel Street, Bombay 1.

P. N. Joshi & Co.—147, Mahatma Gandhi Road, Fort, Bombay 1.

Press Syndicate Ltd.—Readymoney Bldg., Apollo Pier Road, Bombay 1.\*

R. C. Advertising Co.—73, Tamarind Lane, Fort, Bombay 1. Ranjit Sales and Publicity Pvt. Ltd.—111-A, Mahatma Gandhi Road, Bombay 1.

Rasik Publicity Co. - 7/9, Bell Lane, Bombay 1.

Shantilal G. Shah & Co.—Manu Mansion, 16, Custom House Road, Bombay 1.

Shilpi Adversising Ltd.—13, Wittet Road, Ballard Estate, Bombay 1.

Sista's P. Ltd.—United Bank Building, Sir Phirozshah Mehta Road, Bombay I.





# NATIONAL ADVERTISING SERVICE PRIVATE LTD.

(Estd. 1931)

\* Advertising

\* Films and Radio

\* Market Research

\* Public Relations

★ Creative Services

Regd. Offices: Khorshed Building, Sir P. M. Road,

Bombay I (BR)

Pharmed House, 141, Fort Street,

Bombay I (BR)

Phones: 26-3023 (3 lines)

Grams: "JEYENJEYN", Bombay

CALCUTTA: 21, Princep Street, Calcutta-13

Grams: "JEYENJEYN" (C), Calcutta

Phones: 23-2686, 23-2456

NEW DELHI: 127, Golf Links, New Delhi-3

Grams: "JEYENJEYN", New Delhi.

Phone: 61-8230

MADRAS: NAS House, 150-B, Mount Road,

Madras-2

Phone: 87504

Representatives at:

Baroda, Bhopal and Lucknow. Associates in 71 countries.

Chairman & Managing Director: Kailash C. Jain, B.A., — 27 years with the Agency — Member, Institute of Marketing, London, U.K.



# PRATIBHA

# ADVERTISING

Advertising Agents and Consultants

Bangalore Office:

House No. I, Setlur Street, Langford Town, Bangalore-25.

Phone: 50404.

Grams: "PRATIBANG".

Bombay Office:

63, "Anjali", 6th Floor, Off Arthur Bunder Road, Behind Radio Club, Bombay-5.

Phone: 214189.

Grams : "PRATIAD ".

Telex No.: 011-3468.

Delhi Office :

66, Babar Road, New Delhi I and 36, Tadarmal Road, New Delhi I.

Phones: 47782 & 456902. Grams: "PRATIBHA".

Poona Office:

"Cosmos", Prabhat Road, Poona 4.

Phone: 55670. Grams: "PRADVERT".

Telex No. 014-277.

Stusa Advertising.—122, Commerce House, Medows Street, Bombay 1.

Ulka Advertising.—Neermal, 4th Floor, Nariman Point, Bombay 20.

## AGRICULTURAL IMPLEMENTS

Agra Engineering Co.—40, Bank Street, Fort, Bombay 1.

Agricultural Discs (India) Ltd.— Karim Chambers, 2nd
Floor, 40, Hamam Street, Fort, Bombay 1.

Arjansingh Khemchand.—1st Floor, 118, Commerce House, Medows Street, Bombay 1.

Bharat Electric & Engineering Corpn.—Free Press Building, 21, Dalal Street, Fort, Bombay 1.

Duncan Stratton & Co. Ltd.—29, Bank Street, Bombay 1.

Eastern Machinery and Trading Co.—Imperial Chambers, Wilson Road, Ballard Estate, Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, Bombay 56 AS.

Jagat Engineering Co.—11, Botawala Building, Horniman Circle, Bombay 1.

Larsen & Toubro Ltd.—L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Marshall Sons & Co. (India) Ltd.—79, Dr. A. Besant Road, Bombay 18.

P. Ratilal & Co.-43, Dhanji Street, Bombay 3.

Somani & Co. Ltd.—Mehta Building, Medows Street, Fort. Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co., India Private Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

# AGARBATTI & DHOOP (INDIAN INCENSE)

# SPREADING THE SWEET SMELL OF INDIA THROUGHOUT THE WORLD

As the leading Manufacturers and Exporters of quality Indian Incense (Agarbatties) to

EUROPE, U.S.A., CANADA, FAR EAST, EAST, WEST & NORTH AFRICA, CARIBBEAN COUNTRIES, Etc.,

we take pride that the age old perfume of India is being spread far and wide everywhere.

The range of our famous export products include:

- ★ 511 GATEWAY OF INDIA
- \* 909 THREE ROSES
- \* 999 LORD KRISHNA
- \* 666 CHANDAN
- \* KING OF MOGRA
- \* SHIV-SHAKTI
- \* CHANDAN DHOOP
- ★ GATEWAY OF INDIA Cubes & Cones Incense

# MYSORE SUGANDHI DHOOP FACTORY

Established 1934

13, Commercial Chambers, Yusuf Meher Ali Road, P.O. Box No. 3178. Bombay 3. Phone: 324584

#### AIR-COMPRESSORS & SPARE PARTS SUPPLIERS

Batliboi & Co. Pvt. Ltd.—Forbes Street, Fort, Bombay 1.

Brady, W. H. & Co. Ltd.—12, Vir Nariman Street, Fort, Bombay 1.

Consolidated Pneumatic Tool Co. (India) Ltd.—301/302, Agra Road, Mulund, Bombay 80.

Dodge & Seymour (India) Pvt. Ltd.—Krupanidhi, 2nd Floor, 9, Wittet Road, Ballard Estate, Bombay 1 BR.

Dodsal Ltd.—Mafatlal House, Backbay Reclamation, Bombay 20.

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Fort, Bombay 1.

Hemco Corporation.—308, Bazar Gate Street, P.B. No. 1645, Bombay 1.

International Machine Tools Corporation, 5, Bank Street, Bombay 1.

Larsen & Toubro Ltd.—L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Machinery Sales Corporation.—Bassam House, 11, Military Square Lane, Fort, Bombay 1.

Marshall Sons & Co. (India) Ltd.—79, Dr. A. Besant Road, Bombay 18.

Shubh Industries.—510, Bhavani Shanker Cross Road, 128, Jay Gopal Industrial Estate, Dadar, Bombay 28.

Turner, Hoare & Co. Ltd.—Wavel House, 15, Graham Road, Ballard Estate, Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

# TRADES AND PROFESSIONS IN BOMBAY

# AIR-CONDITIONING AND REFRIGERATION

Accurate Air-conditioning Co.-293, Yusuf Meheralli Road, Bombay 3.

Ahmed A. Fazelbhoy (Pvt.) Ltd.-Liberty Buildings, Marine Lines, Bombay 20.

Air-Conditioning & Refrigeration Corpn.—297, S.V.P. Road, Bombay 3.

Air-Conditioning Corpn. Ltd.—Construction Ballard Estate, Bombay 1.

Air Control & Chemical Engg. Co. Ltd.—Vaswani Chambers, Dr. Annie Besant Road, Worli, Bombay 18.

American Refrigerator Co. Ltd.—Sadhana Rayon House, Dr. D. N. Road, Bombay 1.

Asia Electric India (Pvt.) Ltd.—Yaffi Building, Goa Street, Bombay 1.

Atlas Engineering Corporation.—Kitab Mahal, 192, Dr. Dadabhai Naoroji Road, Bombay 1.

Blue Star Ltd.—Kasturi Bldgs., Jamshedji Tata Road, Bombay 20.

Bombay Amonia Pvt. Ltd.-298, Bazar Gate Street, Bombay 1.

Brady, W. H., & Co. Ltd.—12, Vir Nariman Street, Fort, Bombay 1.

Bright Brothers Pvt. Ltd.—156-A, Tardeo Road, Bombay 34.

Calcutta Bombay Trading Corporation .- Stadium House, Vir Nariman Road, Bombay 20.

Chatur Parmanand Vaswani.—59, Forbes Street, Bombay 1.

Cooling Corporation of India.—105, Apollo Street, Bom-

Crescent Agencies (Pvt.) Ltd.—Beaumont Chambers, N. Master Road, Bombay 1.

Dadajee Dhackjee & Co. Pvt. Ltd.—Sandhurst Bridge, Bombay 7.

Danfoss (India) Ltd.-Kurla-Andheri Road, Behind Vijay Silk Prints, Bombay 70.

Duncan Stratton & Co. Ltd.—29, Bank Street, Fort, Bombay 1.

Economy Refrigeration & Engineering Co.-P.O. Box 449, Forbes Street, Fort, Bombay 1.

Electronics Ltd.—106, Sea Face Road, Bombay 18.

English Electric Co. Ltd.-Vulcan Insurance Building, Nariman Road, Bombay 20.

General Electric Co. of India (Pvt.) Ltd.-Magnet House, Dougall Road, Ballard Estate, Bombay 1.

General Radio Appliances Ltd.—Unity House, M. Paramanand Marg, Bombay 4.

Grovers (Pvt.) Ltd.—Opp. Gwalior Palace, Dr. Annie Besant Road, Worli, Bombay 18.

Imanes Pvt. Ltd.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56 (AS).

Indo Universal Corporation.—301A, Commerce House, Medows Street, Dombay I.

International Elec. Co. (India) Pvt. Ltd.—Thackersey House, Graham Road, Ballard Estate, Bombay 1.

Jafkay Engg. Corpn.—206, Neelam, Worli Sea Face Road. Bombay 18.

Larsen & Toubro Ltd.—L and T House, Dougall Road, Ballard Estate, Bombay 1.

Lloyd Sales Corpn.—386, Caddel Road, Bombay 28.

Marshal Air Conditioning & Refrigeration Engineers .-4th Floor, 41, Sailesh, Gowalia Tank, Bombay 26.

Philips (India) Ltd.—221, D. Naoroji Road, Bombay 1.

Plas-Fab Pvt. Ltd.-Adve Floor, 12A, General J. Bhosle Road, Bombay Premier Automobiles Ltd Conditioning Dept LAir

OF EDUCATIONS

Agra Road, Kurla, Bomb Protos Engineering Co. Ltd. 178, Jamshedji Tata Road Bombay 20.

efrigeration & Apphanece Court, 95, Karve, Road, Bombey 20.Governo Refrigeration & Appliances

Sahvadri Enterprises.—20, Dr. E. Weses lakshmi, Bombay 11.

Spencer & Co. Ltd.—Spencer's Building, Forjett Street, Bombay 26.

Star Freez Industries.—Parijat, Subhas Road, Bombay 20. Trans Continental Trade Agencies—Orient Building, Wodehouse Road, Colaba, Bombay 5.

Krishna & Company.—Moti Estate, Sion-Trombay Road, Bombay 71.

Voltas Ltd.—NKM International House, 178, Backbay Reclamation, Bombay 20,

Vulcan Laval Ltd.-Mustafa Building, 7-A, Sir P. M. Road, Bombay I.

York India Ltd.—Elphinstone Bldg., Veer Nariman Road, Bombay 1.

#### ANODIZING

Bombay Miscellanies Pvt. Ltd.—Khan Manzil, 28 Calicut Street, Fort, Bombay 1.

Excel Process (Pvt.) Ltd.—22-D, S. A. Brelvi Street, Bombay 1.

Kiv Trading Co.-17/1st Parsiwada, Khetwadi, Bombay 4. Liberty Jewel Box Mfg. Co.—37-A, Doctor's Compound, Parel Crosslane, Bombay 12.

Ronuk Industries Ltd.—11-A, Worli Sea Face, Bombay 18.

# ARCHITECTS & ENGINEERS



## DESIGNERS PRIVATE LIMITED

Consulting Architects and Engineers for Buildings and Industrial Projects, 91A, Walkeshwar Road, Bombay-6.

Grams: "TEKNIPLANT" Phone: 356161.

# ARCHITECTS & SURVEYORS REQUISITES

# SIMPLEX PRODUCT

# MARSHAL

(Regd. Trade Mark)

# **ALUMINIUM LADDERS**



RUST PROOF
FIRE PROOF
ROT PROOF

Equipped with quick moving locks. Adjustable at various heights.

Sizes ranging from 1829 mm closed imes 3048 mm extended to 7620 mm closed imes 13716 mm extended



Phones: { Office : 331794 | Factory : 693335

Grams: "LADDERMAN"



FITTED WITH SOLID RUBBER SHOES & CAPS

# SIMPLEX TIMBER MART

64/68, I. M. Merchant Road, (P. B. No. 5012), Khadak, BOMBAY-9 (INDIA)

# BETTER PRINTS, BLUE OR WHITE. Use BRAND

FERRO, AMMONIA, SEMIDRY & REPRODUCTION
TRACING PAPERS & CLOTH

Enquiries to Manufacturers:

# BOMBAY MISCELLANIES PRIVATE LIMITED

Regd. Office: Khan Manzil, 28, Calicut Street, Fort, Bombay-I.

Phone: 266523. Grams: "FEPRU".

In Technical Collaboration with Messrs. Kalle A.G., W.A. West Germany.

Branches: Bangalore & Ahmedabad.

Also available at PROMPT PRINT SERVICE on latest model German Machine "OZAPRIMUS" at Bombay and Ahmedabad.

### AROMATIC CHEMICALS

Aromatic Products & Chemicals Ltd.—Prospect Chambers Annexe, D. Naoroji Road, Fort, Bombay 1.

Calcutta Essence Supply Co.—Mulchand Mansion, S. Gandhi Marg, Bombay 2.

General Import Co. (India).—Keshav Baugh Building, 102, Princess Street, Bombay 2.

Goldensun Manufacturing Co.—Bansilal Building, 64-C, Girgaum Road, Bombay 4.

Industrial Perfumes Ltd.—3rd Floor, Army & Navy Building, Mahatma Gandhi Road, Bombay I.

Kapadia & Co.—Bel Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

M. C. Davar, & Co.-143, Princess Street, Bombay 2.

N. R. Shah & Company.—Malchand Mansion, Princess Street, Bombay 2.

Odhawji Lawji & Co.—Chikhal House, S. Gandhi Marg, Bombay 2.

Roshanlal & Sons.—Gopal Nivas, 133, Princess Street, Bombay 2.

S. H. Kelkar & Co. Pvt. Ltd.—36, Mangaldas Road, Bombay 2.

Sikri Brothers.-79-E, S. Gandhi Marg, Bombay 2.

T. Ali Mahomed & Co.-144-46, Sarang Street, Bombay 3.

## ASBESTOS PRODUCTS

Abdeally, B. M. & Co.—127, Sarang Street, Bombay 3. Amirudin Shalebhoy Tyebjee & Sons.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1.

Asbestos, Magnesia & Friction Materials Ltd.—Bombay-Agra Road, Ghatkopar, Bombay 77.

Babulal & Bros.—26, Nagdevi Cross Lane, Bombay 3.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

Brady, W. H. & Co., Ltd.—12, Nariman Road, Bombay 1. Eastern Stores & Trading Co. Pvt. Ltd.—115, Nagdevi Street, Bombay 3.

F. Pestonji & Co.—94, Nagdevi Street, Bombay 3.

Fakhruddin & Co.—43, Abdul Rehman Street, Bombay 2. Hardcastle, Waud & Co., Ltd.—339, D. N. Road, Fort, Bombay 1.

Hindustan Ferodo Ltd.-Ghatkopar, Bombay 72.

Hindustan Plywood & Metal Depot.—Y. Meheralli Road, Bombay 3.

Hiralal Gokaldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 3.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. Jaswantlal Maneklal & Co.—40, Nariman Road, Fort, Bombay 1.

Karachi Engineering Co.—42, Khorshed Bldg., Sir Phirozshah Mehta Road, Fort, Bombay 1.

Merchants Bros.—151, Nagdevi Street, Bombay 3. Modern Machine Tool Co.—H. O. 88, Nagdevi Cross Lane,

Bombay 3.

N. Mohanlal & Co.—124, Nagdevi Street, Bombay 3.

N. Mohanial & Co.—124, Nagdevi Street, Bombay 3. Nagdevi Tool-Steel Mart.—186-88, Nagdevi Street, Bombay 3.

P. Ratilal & Co.—43, Moti Mahal, Dhanji Street, Bombay 3.

# R. MOHANLAL & COMPANY

38, Bibijan Street, Bombay 3.

Phones: 324929, 321765. Grams: "HANDTAPS."

Distributors for : HINDUSTAN FERODO LIMITED

Manufacturers of:

"FIREFLY" Brand Asbestos Packing Ropes, Yarns, Clothes, Lagging Ropes, Asbestos Millboards, "FIREFLY/PERMANITE" Brands Compressed Asbestos, Fibre Jointing Sheets & also Metallic Wire-woven Steam Jointings.

Also Stockists of :

Rubber Canvas Insertions & Sheets for Commercial & Steam purpose.

Neoprene Rubber Sheets for Heat & Oil purpose.

Leather & Rubber Beltings; Vulcanised Fibre Sheets & Rods; Ebonite Sheets & Rods & Allied Accessories.

R. Ochhavlal & Co.—86, Nagdevi Street, Bombay 3.
Roberts, McLean & Co. Pvt. Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort, Bombay 1.
Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

# **AUTOMOBILE PARTS AND ACCESSORIES**

Ajit Auto Enterprise.—443, Lamington Road, Bombay 4. Allied Auto Accessories Pvt. Ltd.—Navasari Building, 240, Dr. D. N. Road, Bombay 1.

Allied Automobiles.—Near Lotus Cinema, Dr. A. B. Road, Bombay 18.

Asbestos, Magnesia & Friction Materials Ltd.—Bombay-Agra Road, Ghatkopar, Bombay 77.

Asiatic Automobiles.—1, Avantikabai Gokhale Street, S. V. P. Road, Bombay 4.

Auto Accessories (India) Ltd.—Forbes Building, Home Street, Fort, Bombay 1.

Auto Equipment Ltd.—68-C, Bansilal Motilal Building, Opera House Tram Terminus, Bombay 4.

Automobile Ancillaries of India Pvt. Ltd.—Kandivli Industrial Estate, M. G. Road, Bombay 67.

Automobile & Agricultural Industries Corp.—497/3, Roop-Raj, Sardar V. Patel Road, Bombay 4.

Automobile Products of India Ltd.—Bhandup, Bombay 78.

Automotive & Allied Industries Pvt. Ltd.—316, Vithalbhai Patel Road, Bombay 4.

Automotive Corporation (India).—431, Lamington Road, Bombay 4.

Automark Pvt. Ltd.—95 K, Oomer Park, B. Desai Road, Bombay 26.

Automotive Manufacturers' Agencies.—White House, 91, Walkeshwar Road, Bombay 6.

Bharat Radiators Pvt. Ltd.—Central Salsette Road, Kalina, Santacruz East, Bombay 29.

Bharat Springs Pvt. Ltd.—1/466, Ghanshyam Baug, Opp. Aurora Theatre, Matunga, Bombay 19.

Bombay Cycle & Motor Agency Ltd.—534, Sardar Vallabhbhai Patel Road, Bombay 7.

Bombay Garage Pvt. Ltd.—Meher Bldg., Chowpatty, Bombay 7.

C. Vakil & Co. Pvt. Ltd.—497/3, Roop-Raj, Sardar V. Patel Road, Bombay 4.

Champion Auto Parts Co.—Avantikabai Gokhale Road, Bombay 4.

Chandulal Mehta & Co. Pvt. Ltd.—Seklat House, M. P. Marg, Bombay 4.

Continental Auto and General Traders.—324, P. M. Roy Marg, Bombay 4.

Conwest Ltd.-448, Lamington Boad, Bombay 4.

Dadajee Dhackjee & Co. Pvt. Ltd. (Motor Dept.).—Shree Pant Bhuwan, Sandhurst Bridge, Bombay 7.

Delta Spokes Mfg. Co.—12, Nanabhai Lane, Fort, Bombay 1.

Echjay Industries Pvt. Ltd.—Kanjur Village Road, Bhandup, Bombay 78.

Ex-Cell-O India Ltd.—78-B, Dr. Annie Besant Road, Worli, Bombay 18.

Gabriel India Ltd.—Agra Road, Mulund, Bombay 80.

George Oakes Pvt. Ltd.—Swadeshi Mills Compound, M. P. Marg, Bombay 4.

Gleitlager India Pvt. Ltd.—16, Custom House Road, Bombay 1.

Globe Auto Electrical Ltd.—Agra Road, Mulund Bombay 30.

Hasman Industries.—Kamaruddin Industrial Estate, Saki Naka, Bombay 72.

# HINDUSTAN FERODO LTD.

A Member of the Turner & Newall, Group.

Registered Office & Factory:

Bombay-Agra Road, Ghatkopar, Bombay 86 AS.

Phone: 581491 (9 lines). Grams: "FERODOSTAN".

#### Sales Offices:

Calcutta, Madras & New Delhi.

Manufacturers of: "FERODO" Brake and Clutch
Linings, "Firefly" Permanite Asbestos Textiles,
Compressed Asbestos Fibre Jointings, Asbestos
Millboard, "Limpet" Asbestos Sheets and Ferobestos.

Imanes Pvt. Ltd.—94, S. V. Road, Erla, Bombay 56. Jayanand Khira & Co. Pvt. Ltd.—Khira Bhayan, Sand-

Jayanand Khira & Co. Pvt. Ltd.—Khira E hurst Bridge, Bombay 7.

Jyoti Motor Accessories.—Contractor Bldg., No. 1, Opp. Prarthana Samaj, Bombay 4.

Kothari Brothers & Co.—Khira Bhavan, Sandhurst Bridge, Bombay 7.

Metropolitan Springs Pvt. Ltd.—Antop Hill, Sheikh Mistry Road, Bombay 31.

Motor Industries Co. Ltd.—79, Dr. Annie Besant Road, Bombay 18.

National Automobile Co. (Pvt.) Ltd.—Nagindas Mansion, Opera House, Bombay 4.

New Haven Steel Ball Corporation Pvt. Ltd.—Pandyan House, Frere Road, Bombay 1.

New Haven Engineering Co. Pvt. Ltd.—Nanjee Building, 17-B, Horniman Circle, Bombay 1.

Precision Components Pvt. Ltd.—Andheri-Kurla Road, Marol Naka, Bombay 59.

Premier Automobiles Ltd.—Construction House, Ballard Estate, Bombay 1.

Provincial Motor Car Co., Ltd.—Purshottam Bldg., Opera House, Bombay 4.

Racmann Koshatkinn (Regd.).—53, Industrial Area, Najafgarh Road, New Delhi 15.

Ramon & Demm Ltd.—79, Apollo Street, Fort, Bombay 1.

Reliance Automobiles.—Manu Mansion, 475, Sandhurst Road, Bombay 4.

Ruby Coach Builders Pvt. Ltd.—75, Dr. Annie Besant Road, Worli, Bombay 18.

Sah & Sanghi, 11C, Hughes Road, Bombay 7.

Sanghi Motors (Bombay) Pvt. Ltd.—9, Mathew Road, Bombay 4.

Schrader-Scovill Duncan Ltd.—Bombay-Agra Road, Mulund, Bombay 80.

Simetals Pvt. Ltd.—61, Government Gate Road, Parel, Bombay 12.

SKF Ball Bearing Co. Pvt. Ltd.—M. Gandhi Memorial Building, Subhas Road, Bombay 2.

Standard Garage.-Modi Chambers, Bombay 4.

United Industries of India.—82, Opera House Tram Terminus, Bombay 4.

Universal Automobiles .- 461, S.V.P. Road, Bombay 4.

Victor Gaskets India Ltd.—S. 305, Agra Road, Mulund, Bombay 80.

Excel Process (Pvt.) Ltd.—22-D, S. A. Brelvi Street, Bombay 1.

## BALL AND ROLLER BEARINGS

Advance Bearing Corpn.—101, Nagdevi Cross Lane, Bombay 3.

Agarwal Machine & Engineering Stores.—63, Nagdevi Cross Lane, Bombay 3.

Anil Bearing Stores.—163, Narayan Dhuru Street, Bombay 3.

Antifriction Bearings Corporation Ltd.—Kakad Chambers, 132, Dr. A. Besant Road, Bombay 18.

Associated Bearing Co. Ltd.—Mahatma Gandhi Memorial Bldg., Netaji Subhas Road, Bombay 2.

Associated Export-Import Corporation.—381, Dr. D. N. Road, Bombay 1.

Auto Mech. Bearing Corpn.—18, Ratan Building, Bibijan Street, Bombay 3.

Ball Bearing & Machinery Corpn.—172-74, Nagdevi Street, Bombay 3.

B. Chowdhury & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Bearing Enterprise, 138, Nagdevi Street, Bombay 3.

Bharat Trading Co.—71, Nagdevi Cross Lane, Bombay 3. Bombay Ball Bearing Supplying Co.—349/353, Samuel Street, Bombay 3.

Bombay Mercantile Corporation.—211-217, Nagdevi Street, Bombay 3.

Central Bearing Co.—33, Sarang Street, Khokha Bazar, Bombay 3.

Chunilal Prabhudas & Co. (Bombay) Pvt. Ltd.—413, Himalaya House, Dr. D. N. Road, Bombay 1.

Conwest Bearing Corpn.—101, Narayan Dhuru Street, Bombay 3.

Dhirajlal & Co.—15, New Queen's Road, Bombay 4.

Everest Bearing Corpn.—86, Narayan Dhuru Street, Bombay 3.

Gulabani & Co.—67/69, Mohamedali Road, Bombay 3. Hemani Brothers.—30, Princess Street, Bombay 2.

International Bearing Co.—61, Commercial Chambers, Masjid Bunder Road, Bombay 3.

Jayant Engineering & Mill Stores.—39, Nagdevi Cross Lane, Bombay 3.

Little Bearing Co.—89/93, Nagdevi Cross Lane, Bombay 3.Masrani Millgin Stores.—46, Nagdevi Cross Lane, Bombay 3.

Mill Stores & Bearing Co.—182/184, Nagdevi Street, Bombay 3.

Modern Machine Tools Co.—88, Nagdevi Cross Lane, Bombay 3.

# MACHINE TOOLS & IMPLEMENTS

93-95, Narayan Dhuru Street. Bombay-3.

322268 **Phones** 322269 214092

Grams: "MACHTOOLS"



#### STOCKISTS & IMPORTERS OF :

Ball, Roller & Thrust Bearings, Twist Drills, Drill Sleeves & Drill Chucks, Taps & Dies, Reamers-Hand & Machine Milling Cutters, Plain, Slotting & Gear Steel-Files & M. S. Shaftings, Lathe Chucks & Scroll Chucks, Tool Steel-High Speed-Carbon & Stainless Grinding Wheels-Cups, Emery Papers, Saw Blades Circulars, Band & Hack, Electric Portable Drills & Grinders.

Motor Trade Supply Co.—Parekh, Mansion, Sardar V. P. Road, Bombay 4.

Needle Roller Bearing Co. Ltd.—B/16, Road No. 2, Industrial Area, Thana.

Overseas Agencies.—3/5, Nanabhai Lane, Fort, Bombay 1. Pioneer Traders & Ball Bearing Co.—19, Nagdevi Cross Lane, Bombay 3.

Precision Bearings India Ltd.-Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Purushottam Somabhai & Co.—36, Sarang Street, Post Box 3014, Bombay 3.

Radiant Bearing Co.-212, Yusuf Meherali Road (Mas-

jid Bunder), Bombay 3 BR. Roberts McLean & Co. Pvt. Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Shah Brothers.—Sandhurst Bldg., 524, S.V.P. Road, Bombay 4

SKF Ball Bearing Co. Pvt. Ltd.-M. Gandhi Memorial Building, Subhas Road, Bombay 20.

Suessen Textile Bearings Ltd.—Tiecicon House, Dr. E. Moses Road, Bombay 11.

Trade (India) Corporation.—Resham Bldg., M. Azad Road, Bombay 3.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Universal Bearing Co. P. Ltd.—98, Nagdevi Lane, Bom-

Universal Services Corporation Ltd.-457/9, S.V.P. Road, Bombay 4.

Upper India Trading Co., Ltd.—Ravel Building, Lamington Road, Bombay 4.

Widerange Ball Bearing Co.-94/96, Nagdevi Street, Bombay 3.

William Jacks & Co., I. Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay-1.

#### BANKS

# THE BRITISH BANK OF THE MIDDLE EAST

(Incorporated in England by Royal Charter 1889). Head Office: 20, Abchurch Lane, London E.C.4.

Authorised Capital .. £ 5,000,000 Issued and Fully Paid-up .. £ 3,500,000 Reserve Fund .. .. .. £ 5,500,000

## Board of Directors:

C. E. Loombe, C.M.G. (Chairman); Sir Geoffrey Eley, C.B.E. (Deputy Chairman); M. G. Carruthers, M.C.; Sir Charles Denman, Bt., M.C.; Sir Alec Kirkbride, K.C.M.G., C.V.O., O.B.E., M.C.; Sir John Stevens, K.C.M.G., D.S.O., O.B.E., T.D.; Sir Roger Stevens, G.C.M.G.; G. P. Stubbs; Lord Trevelyan, G.C.M.G., C.I.E., O.B.E.; Sir Michael Turner, C.B.E.; A. Macqueen.

> General Manager: G. A. Calver.

Deputy General Manager: P. G. Doggett.

#### Branches:

INDIA — Bombay ; JORDAN — Amman ; LEBANON - Beirut (4 Branches), Tripoli ; SAUDI ARABIA -Alkhobar, Dammam, Jeddah; SHEIKHDOM OF BAHRAIN - Manama, Ghudaibiya, Hidd, Muharrag; STATE OF KUWAIT - Kuwait (6 Branches); SULTANATE OF MUSCAT AND OMAN - Muscat. Muttrah, Mina-al-Fahal; SHEIKHDOM OF QATAR -Doha (2 Branches); TRUCIAL STATES—Sheikhdom of Abu Dhabi - Abu Dhabi ; Sheikhdom of Dubai -Dubai, Al Battin, Deira, Satwa; Sheikhdom of Ras al Khaimah - Ras al Khaimah; Sheikhdom of Sharjah, - Khor Fakhan, Sharjah; Kalba; SWITZERLAND -Geneva: TUNISIA - Tunis.

Bombay Branch:

314, Dr. Dadabhoy Naoroji Road, Fort, Bombay I.

Manager:

R. R. Rees.

# ASSOCIATED COMPANIES

THE BANK OF IRAN AND THE MIDDLE EAST Teheran (with 7 sub-branches) and Khorramshahr, Iran.

> BANK OF NORTH AFRICA Tripoli, Benghazi and Mersa Brega, Libya.

SUBSIDIARY COMPANIES THE BRITISH BANK OF THE MIDDLE EAST (Morocco) S.A., Casablanca and Tangier.

B.B.M.E. NOMINEES LIMITED. A member of the Hong Kong Bank Group.

# BANK OF BARODA

Head Office: Mandvi, Baroda.

#### LIST OF BRANCHES

Andhra Pradesh: Guntur, Hyderabad\*, Kakinada, Pedanandipadu, Secunderabad\*, Vijayawada, Visakhapatnam, Yeditha,

Assam: Gauhati, Shillong.

Bihar: Chakulia, Dhanbad, Jamshedpur\*, Jamshedpur (Golmuri), Muzaffarpur, Patna\*, Ramgarh, Randhi, Bokaro Steel City, Daudnagar, Golapbagh, Hatidah, Jagdishpur, Manpur, Mohteria, Mokha, Sherghati, Tekari.

ujarat : Abrama, Angar-Satellite Branch, Bardoli-Satellite Branch, Jamblighoda, Karadi-Satellite Branch, Olpad, Padra, Piplay, Saribrijrang-Satellite Branch, Unai, Undel, Udwada, Vapi-Industrial Estate.

Ahmedabad\*: Ambawadi\*, Asarwa\*, Bhadra\*, Dariapur, Delhi Chakla\*, Dhanlaxmi Market, Ellis Bridge\*, Gandhi Road Main Branch\*, Geeta Mandir Road\*, Girdharnagar\*, Kalupur, Mani-nagar\*, Navrangpura\*, Panchkuva, Raipur Chakla, Relief Road\*, Sabarmati\*, Sarangpur, Sardar Patel Colony\*, Swaminarayan Temple Road, University Campus\*, Alipore, Amalsad\*, Amblia-san, Amreli\*, Anand, Anjar, Anklay, Ankleshwar, Ashtagam-Khadsupa Boarding, Bahadarpur, Balisana, Bardoli.

san, Amreii\*, Anand, Anjar, Ankiay, Ankiesiwar, Ashtagair Khadsupa Boarding, Bahadarpur, Balisana, Bardoli:
Baroda: Alkapuri, Industrial Estate, Khanderao Market, Kothi, Laheripura New Road, University Campus\*, Pratapnagar, Raopura\*, Sayaijgung\*, Wadi, Bayad, Bhadran, Bhaili, Bhandu, Bhaynagar, Bhaynagar (Krishnanagar)\*, Bhilad, Bhuj, Billimora\*, Bodeli, Bodhan, Borsad, Broach, Bulsar\*, Cambay\*, Chhani, Chhapi, Chikhli\*, Dabhoi\*, Dehgam\*, Dhansura, Dharmaj, Dhinoj Dholka, Dhuvaran, Dwarka\*, Fertilizernagar\*, Jamnagar (Digvijay Plot), Jotana\*, Junagadh\*. Kadi, Kali, Kalol\*, Kandla (Free Trade Zone), Kapadwanj\*, Karadi, Karamsad, Karchelia, Karjan (Miyagam)\*, Kheralu, Khergam, Kherwa, Kolki, Kosamba\*, Koyali, Ladoi, Madhi\*, Mansa\*i, Maroli Bazar\*, Mehla, Mehsana\*, Mehsana Market Yard, Mithapur\*, Morvi, Mota, Mot Kunkavav, Nadiad\*†, Nakhtrana, Narsanda, Navsari (Panch Hatdi)\*, Navsari (Station Road)\*, Palaj, Palana, Palapur, Palej\*, Pandoli, Pardi, Patan\*, Patri\*, Pethapur, Petlad\*, Porbandar, Radhanpur, Rajkot\*, Rajkot (Bhaktinagar), Rajkot (Jagnath Area)\*, Rajpipla\*, Rander\*, Rajpardi, Rankuva, Ranoli, Ranpur\*, Ranu, Ras, Rayam, Sachin, Sanjan, Sankheda\*, Sarbhan, Savarkundia, Savli, Sayan\*, Shahpur\*, Sidhpur\*, Surat (Athwa Lines), Surat (Salbatpura), Surat (Navasi Bazar), Surat (Parsi Sheri), Surat (Salbatpura), Surat (Vania Sheri), Surendranagar, Talod, Tilakwada, Torna, Udhna, Ukai, Umbergaon\*, Umreth, Unava-Balwa, Unjha, Upleta, Utran, Uttarsanda, Vadali\*, Vadgam, Vadnagar, Vankaner, Vapi, Vasad\*, Veraval, Vijapur, Viramgam\*, Virsad\*, Visnagar\*, Vayra.

Haryana: Gurgaon, Faridabad, Sonepat.

Jammu and Kashmir : Srinagar, Jammu.

Kerala: Alwaye, Cochin, Ernakulam Irinjalakuda\*, Kalamassery. Quilon, Trivandrum.

Madhya Pradesh: Bhilai\*, Bhopal\*, Gwalior, Indore (Industrial Estate)\*, Indore (Sitalamata Bazar)\*, Indore (Siyaganj)\*, Jabalpur, Raipur, Ujjain, Maharajpur, Deori, Dhanpuri, Kymore.

aharashtra: Ahmednagar, Akola, Amravati, Aurangabad, Ballarpur, Bordi, Thana, Gowalia Tank, Bombay, Jeguri, Poona,

Munem.

Bombay: Andheri\*, Backbay Reclamation\*, Ballard Estate, Bandra\*, Bori Bunder, Borivli\*, Bullion Hall, Byculla, Churchgate, Colaba\*, Crawford Market, Dadar, Fort, Main Branch\*, Gamdevi\*, Ghatkopar\*, Khand Bazar\* Khar, Khar Pali Road\*, Khetwadi\*, Malad, Mandvi, Mangaldas Market, Marine Drive\*, Matunga, Chandavarkar Road\*, Matunga, Podar College, Mulund\*, Nepean Sea Road\*, Opera House\*\*, Princess Street, Sakinaka, Santacruz West, Santacruz East\*, Shivaji Park\*, Sion\* Sir P. M. Road, Thakurdwar\*, Vile Parle East, Vile Parle West\*, Wadala\*, Zaveri Bazar\*, Chandrapur, Deolali\*, Dhulia, Gholwad, Ichalkaranji, Jalgaon, Jalna, Kalyan, Karanja, Kolhapur (Shahupur), Kolhapur (Shivaji Chowk), Kopergaon, Lonand, Mahad\*, Majiwada, Malegaon, Masoli, Miraj, Modnimb, Murtizapur\*, Nagpur (Dharampeth)\*, Nagpur (Gandhi Baug)\*, Nagpur

(Sitabuldi), Nandurbar\*, Nasik City, Nasik Road, Pandharpur, Panvel, Pen\*, Poona Camp\*, Poona City (Karve Road)\*, Poona, (Laxmi Road)\*, Poona (Shivaji Nagar)\*, Poona (Station Branch)\*, Sangamner\*, Sangli, Satara, Sholapur, Sinnar, Thana\*, Ulhasnagar, Yeotmal\*.

Mysore: Bangalore\*, Bangalore (Malleswaram), Bangalore (College Campus), Bedkihal, Belgaum\*, Mangalore, Mysore.

Orissa: Barbil, Cuttack, Rourkela\*.

Punjab: Amritsar, Jullundur City\*, Ludhiana\*, Ludhiana (Industrial Estate), Patiala.

Rajasthan: Ajmer\*, Bikaner\*, Jaipur (M. I. Road)\*, Jaipur (Power House Road, Jaipur (Tripolia Bazar), Jodhpur\*, Kota\*, Mahua, Shri Mahavirji, Udaipur\*, Bagar.

Tamil Nadu: Ambattur, Coimbatore, Lalgudi, Madakulam, Monipatti.

Madras: (College Avenue)\*, E. C. Street, Mount Road, Mylapore\*, North Beach Road\*, Main Branch, Sowcarpet, St. Thomas Mount, Theagaroyanagar, Madurai, Manachanallur, Melattur, Nambiyur, Perundurai, Puduvayal, Talainayar, Tanjore\*, Tiruchirapalli\*, Uthukuli, Veppathur.

Union Territories: Chandigarh (Sector-17B)\*, Chandigarh (Sector-22C), Pondicherry, Benaulim-Goa (Mobile Branch), Guirim-Goa (Mobile Branch).

#### DELHI

Delhi: Chandni Chowk, Model Town\*, Sadar Bazar\*, Shakti-

New Delhi: Asaf Ali Road, Chanakyapuri, Connaught Circus, Greater Kailash No. 1\*, Karol Baug, Paharganj, South Extension No. 1\*

Goa: Anjuna, Benaulim, Cortalim-Quelossim, Cuncolim, Guirim-Sangolda, Majorda, Margao\*, Morgim, Panaji\*, Vasco-da-Gama.

Uttar Pradesh: Agra\*, Allahabad, Bareilly, Dehradun, Fatehganj (West), Ghaziabad, Gorakhpur, Kanpur (Birhana-Road)\*, Kanpur (Latouche Road), Kicha, Lucknow, Lucknow (Aminabad), Meerut Cantt, Moradabad, Saharanpur, Varanasi, Delmay, Maharajganj, Nawabganj, Sitarganj, Tiloi, Unchahar.

West Bengal: Asansol\*, Bagnan, Berhampore, Calcutta: Bally-gun\*, Bhowanipore\*, Brabourne Road, Burra Bazar, Chittaranjan Avenue, College St., Dum Dum\*, India Exchange Main Branch\*, M. G. Road, Patipukur, South Dum Dum, Sealdah, Shambazar\*, Lake Market, Upper Chitpur Road, Durgapur, Howrsh, Sodanus, Islampur, Howrah, Sodepur, Islampur.

## FOREIGN BRANCHES

East Africa

Kenya: Kisumu\*†, Mombasa (Makadara Road)\*, Mombasa (Salim Road)\*, Nairobi (City Square), Nairobi (Coryndon St.)\*, Thika.

Uganda: (Branches of our Subsidiary Company, 'Bank of Baroda' (Uganda) Ltd.)

Jinja\*, Kampala\*, Mbale\*.

United Kingdom: London, Southall (Middlesex).

East Pakistan: Narayangunj.

Fiji Islands: Bat, Lautoka\*t, Suva.

Guyana: Georgetown, New Amsterdam.

Mauritius: Port Louist, Gurepipe.

\* Safe Deposit Lockers are provided.

\*\* Safe Deposit Lockers at our Queen's Road premises.

† Mobile Bank is operated in the surrounding villages.

# THE CHARTERED BANK

(Incorporated in England by Royal Charter 1853).

Wholly owned subsidiaries: The Eastern Bank Ltd., The Chartered Bank of London, San Francisco.

Associated companies: Commercial Bank S.A.L., Libya, Irano British Bank, Iran, Conrad Hinrich Donner, Hamburg, Anglo Nordic Bank Ltd., Zurich, European and Overseas Trading Bank N. V., Rotterdam.

Authorised Capital ... £ 15,000,000 Capital Stock Issued £ 9,680,000 Reserve Fund £ 17,425,993

Head Office: 38, Bishopsgate, London E.C. 2.

Court of Directors: William George Pullen (Chairman); Sir Charles Watt Miles, O.B.E.; Sir Paul Benthall, K.B.E.; Kenneth Macrae Campbell, M.B.E.; Sir Harry Greenfield, C.S.I., C.I.E.; The Rt. Hon. The Earl of Inchcape; lan Lilburn MacEwen; Clifford Waite, C.M.G.; William EwingEadie, C.A.; Donald Wescombe Hawkins, O.B.E.; Roger Leighwood; John Mellor Pattinson, C.B.E.; Derek Lister d'Anyers Willis.

Chief General Manager: Stafford Northcote.

General Managers: A. T. Hobbs, M.B.E.; R. A. S. Lane, M.C.; John Wilson, C.B.E.

Assistant General Managers: P. H. Taggart, J. Russell, W. Bowden.

Secretary: E. Hampden Smith.

Chief Manager in India: (Calcutta) A. A. Norrie. Calcutta Branch: 4, Netaji Subhas Road, Calcutta I.

Telegraphic Address: "CHARTABANK". Telex: 281. Phone: 226902 (6 lines).

Calcutta, Chowringhee: 31, Chowringhee Road, Calcutta 16. Gariahat: 208, Rash Behari Avenue, Calcutta 29.

Jorasanko: 6, Vivekananda Road, Jorasanko, Calcutta 7.

Shyambazar: 21A, R. G. Kar Road, Shyambazar, Calcutta 4.

Cossipore: 72B, Kashi Nath Dutta Road, Calcutta 36. Bombay Branch: 25, Mahatma Gandhi Road, P.O. Box No. 558, Bombay.

Manager: D. R. Chapman.

Telegraphic Address: "CHARTABANK". Telex: 230. Phone: 257198 (10 lines).

Andheri: "Rayfreda", junction of Andheri-Kurla Road and Mahakali Caves Road, Chakala, Andheri East, Bombay 69.

Chowpatty: "Shree Pant Bhuvan", (Dadajee Dhackjee Bldg.), Sandhurst Bridge, Bombay 7 WB.

Ghatkopar: 170, Ashok Derasar Lane, Ghatkopar (East), TPS III, Bombay 77.

Worli: 264-265, Dr. Annie Besant Road, Bombay 25 DD.

Amritsar Branch : Hall Bazar, Amritsar.

Cochin Branch: VI/37, Calvetty Road, Fort, Cochin. Calicut Branch: 7/575-A, Town Hall Road, Calicut 1. New Delhi Branch: 17, Parliament Street, New Delhi I.

Delhi Branch: 29, Faiz Bazar, Delhi 7.

Kanpur Branch: 16/49, Mahatma Gandhi Road, Kanpur.

Madras Branch: 371, Esplanade Row, Madras.

Mylapore Branch: 37, Royapettah High Road, Madras 14. Vasco da Gama Branch: Swatantrya Park, Vasco-da-Gama, Goa.

# DENA BANK

A body corporate constituted under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970.

Total Deposits Working Funds Number of Accounts Rs. 130 Crores as on 31st Dec. 1969. Rs. 142 Crores as on 31st Dec. 1969. Six lakhs ninety-eight thousand as on 31st Dec. 1969.

Branches: 262 in 14 States and 61 Safe Deposit Vaults as on 14th March

Maharashtra BOMBAY: \*Horniman Circle (H.O.), Andheri, Bandra Ballard Estate, \*Bhandup, Bhat Bazar, Bhuleshwar, \*Borivli, Chembur \*Colaba, Dadar-Khodadad Circle, \*Dadar-Ranade Road, \*Ghatkopar Gol Deval, \*Goregaon, Gulalwadi, \*Jogesshwari (East), Jogeshwari (West), \*Juhu (Vile-Parle), Kalbadevi, \*Kandivli, Khar-Ghodbunder Road, Khar-Linking Road, Kharek Bazar, Kurla, Mahim, \*Malabar Hill, \*Malad (East), \*Malad (West), Mandvi, \*Matunga, \*Mulund, Nagdevi, \*New Gamdevi, Parel, \*Pedder Road, Sachivalaya Corner, Sandhurst Bridge, \*Santa Cruz (East), \*Santa Cruz (West), \*Share Bazar, Sion, \*Tardeo, Thakurdwar, Trombay, \*Vile Parle (East), \*Vile Parle (West), \*Versova, \*Wadala, Worli, \*Zaveri Bazar, Ahmednagar, Aurangabad, Baramati, Bhayandar, Chinchani, Dahanu Road, \*Dhulia, Erandol, Gondia, Jalgaon, Kagal, Kelwa-Mahim, Kolhapur, \*Malegaon, Manmad, Nagpur, Nanded, Nandurbar, NASIK (2 Branches), Palghar, POONA (5 Branches\*\*), Ravalgaon, Shirgaon—Satpati, Sholapur, Thana, Vinchur, Walchandnagar, Yeola.

Gujarat AHMEDABAD: Amraiwadi, Asarwa, Astodia Chakla, \*Delhi

Branches), Palghar, POONA (5 Branches\*\*), Ravalgaon, Shirgaon—Satpati, Sholapur, Thana, Vinchur, Walchandnagar, Yeola.

Gujarat AHMEDABAD: Amraiwadi, Asarwa, Astodia Chakla, \*Delhi Chakla, \*Ellis Bridge, \*Gandhi Road, Manek Chowk, \*Maninagar, Maskati Market, \*Narayanpura, Navrangpura, \*Relief Road, Sarangpur, \*Saraspur, Shahpur, Adas, Adipur, Amreli, \*Anand, Ankleshwar, Bagsara, Bajipura, Balambha, Balasinor, Bantwa, Bardoli, BARODA (3 Branches), Barwala, \*Bhavnagar, Bhuj, Billimora, \*Borsad, \*Botad, Broach, Buhari, \*Bulsar, Cambay, Chalala, Chanasma, Chorwad, Dakor, Dammagar, Dhank, Dharampur, Dhari, \*Dharma, Dhasa, Dhoraji, Dhrangadhra, Gandevi, Godhra, Gondal, Halvad, Jalalpore, Jamkhandorna, JAMNAGAR (2 Branches), Junagadh, Kabilpore, \*Kadod, Kalawad, Kandla (Free-Trade Zone), Karamsad, Katargam (Surat Dist.), Keshod, Kharel-Gandeva (Bulsar Dist.), Kumbharia (Surat Dist.), Keshod, Kharel-Gandeva (Bulsar Dist.), Kumbharia (Surat Dist.), Mandvi (Surat Dist.), Mehmadabad, Mehsana, Mendarda, Modasa, Morvi, \*Mundra (Kucch), Nadiad, \*Navsari, Nesdi (Bavnagar Dist.), Code, Padra, Palanpur, Paliad, \*Palitana, Patan, Palsana, Petlad, \*Porbandar, RAJKOT (2 Branches\*\*), Salaya (Jammagar Dist.), Samaroli (Bulsar Dist.), Santrampur, Savarkundla, Sevalia (Kaira Dist.), Sevni (Surat Dist.), Sidhpur, Sihor, Silvasa (Dadra & Nagar Haveli), Sinor, SURAT (3 Branches), \*Surendranagar, Tadkeshwar, Udhna, Umreth, Una (Junagadh Dist.), Visnagar, Waghodia (Baroda Dist.), Visnagar, Waghodia (Baroda Dist.), Wankaner.

DELHI-New Delhi: Chhatarpur, Connaught Circus, \*Karol Olbis, Chanda (Chauda Chauda 
DELHI-New Delhi: Chhatarpur, Connaught Circus, \*Karol Okhla, Chandni Chowk, Delhi, Daryaganj, Delhi, G. B. Road, Delhi, Sabzi Mandi, Delhi.

Madhya Pradesh: Arang (Raipur Dist.), Bir (East Nimar Dist.), Bhopal, Burhanpur, \*Dhar, Gwalior, INDORE CITY (2 Branches), Kurud (Raipur Dist.), Raipur, Shahpur (Dist. East Nimar), Ujjain.

West Bengal: Asansol. CALCUTTA: \*Bhawanipore, Brabourne Road, Burra Bazar, Rashbehari Avenue, \*Shyam Bazar, Howrah.

Andhra Pradesh: Hyderabad, Secunderabad, Shamshabad. Goa: \*Aldona, Lotoulim, \*Panaji, Ponda, Tivim, Velha Pilar.

Tamil Nadu: MADRAS (2 Branches), Gummidipundi.

Mysore: Bangalore, Mangalore, Sarjapura.

Kerala: Cochin.

Rajasthan: \*Jaipur, Ramgarh.

Bihar: Bakhtiarpur, Patna, Jamshedpur.

Uttar Pradesh: Lalganj. LUCKNOW: Hazaratganj, \*Nadan Mahal

Punjab: Amritsar, Jullundur, Ludhiana.

\* Has Safe Deposit Vault.

GENERAL BANKING BUSINESS TRANSACTED AND INLAND AND FOREIGN LETTERS OF CREDIT ARRANGED

London Agents: The Chase Manhattan Bank N.A. Bank of America N.T. & S.A. Midland Bank Ltd., Barclay's Bank Ltd. Bank of Baroda. WEST GERMANY: Deutsche Bank A. G. Hamburg. New York Agents:

The Chase Manhattan Bank N.A. Manufacturers Hanover Trust Co. Bank of America (International).

# FIRST NATIONAL CITY BANK

(Incorporated with limited liability in the U.S.A.). (Established 1812).

#### World-wide Banking Services

as on December 31, 1969

Assets: \$ 23,092 million Deposits: \$ 19,142 million
Capital: \$ 366 million Loans: \$ 13,240 million
Surplus and Undivided Profits: \$ 685 million

Head Office: 399, Park Avenue, New York, N.Y. 10022, U.S.A.

Offices of FNCB and Affiliated Companies: New York Area: 181; Overseas: 633.

Located in 82 countries including: Abu Dhabi (2), Argentina (31), Australia (4), Bahamas (2), Barbados (2), Belgium (5), Bolivia (3), Brazil (11), Cameroon (6), Canada (11), Canal Zone (1), Central African Republic (1), Ceylon (4), Chad (2), Chile (10), Colombia (20), Congo (2), Cyprus (17), Dahomey (2), Dominican Republic (5), Dubai (1), Ecuador (7), El Salvador (1), France (8), Gabon (3), Germany (5), Greece (4), Guam (1), Guantanamo Bay (1), Honduras (7), Hong Kong (20), India (63), Indonesia (2), Iran (4), Ireland (1), Italy (2), Ivory Coast (8), Jamaica (3), Japan (5), Jordan (12), Kenya (81), Korea (2), Lebanon (1), Liberia (6), Malaysia (3), Mali (1), Mauritania (3), Mexico (5), Morocco (2), Muscat and Oman (1), Nigeria (4), Nigeria (4), Pakistan (23), Panama (15), Paraguay (4), Peru (7), Philippines (4), Puerto Rico (12), Gatar (2), Republic of China (1), Rhodesia (13), Saudi Arabia (2), Senegal (4), Singapore (3), Somalia (2), South Africa (6), Spain (3), Sudan (11), Switzerland (4), Thailand (2), Togo (2), Trinidad and Tobago (3), Uganda (51), United Kingdom (24), Upper Volta (2), Uruguay (3), Venezuela (4), Virgin Islands (2), Zambia (14).

Correspondents in every commercially important city. "Export Desk" in all Citibank branches in India will provide information relating to overseas operations.

## Supervision in South Asia:

Mr. R. L. Davidson, Vice-President, Raj Mahal, 84, Veer Nariman Road, Bombay-1. Phones: 29-34-63 & 29-33-43.

#### Bombay:

- Fort Branch: 293, Dr. Dadabhai Naoroji Road, Bombay I. Phone: 26-31-31. Grams: "CITIBANK." Telex: 2288. P.O. Box: 175. Manager: Mr. H. W. Meserve.
- Gateway Branch: Taj Mahal Hotel, Apollo Bunder, Bombay I. Phone: 25-55-72. P.O. Box: 1890. Officerin-charge: Mr. K. B. Sonker, Assistant Accountant.
- Nariman Point Branch: 241/242, "Nirmal", Nariman Point, Bombay 20. Phone: 29-98-72. Officer-in-charge: Mr. R. Krishnan, Assistant Accountant.

#### Calcutta:

- Brabourne Road Branch: 9, Brabourne Road, Calcutta.
   Phone: 22-16-75. Grams: "CITIBANK". Telex: 346.
   P.O. Box: 655. Manager: Mr. M. M. Mistri.
- © Chowringhee Branch: I, Middleton Street, Calcutta. Phone: 44-75-96. Grams: "CITIBANK". P.O. Box: 9028. Manager: Mr. H. H. Mitchell.

#### Madras:

- Mount Road Branch: 153, Mount Road, Madras. Phone: 83-06-4. Grams: "CITIBANK". Telex: 326. P.O. Box: 2235. Manager: Mr. B. M. Brenn.
- © George Town Branch: 15/16, Kondi Chetty Street. Phone: 22-45-3. P.O. Box: 1953. Officer-in-charge: Mr. P. N. S. Menon, Pro-Manager.
- New Delhi: New Delhi Branch: 3, Parliament Street, New Delhi. Phone: 43-11-6. Grams: "CITIBANK". Telex 332. P.O. Box: 520. Manager: Mr. A. M. Banerjee.

Codes Used: (Bentley's complete and second phrases, Peterson's International 3rd and 4th Editions, A.B.C. Sixth Edition.

# THE BOMBAY MERCANTILE CO-OPERATIVE BANK LIMITED

(Estd. June 1939)

Head Office:
78, Mohamedali Road, Bombay 3.
Phone: 325961 (5 Lines)

Authorised Capital Rs. 40,00,000 Issued, Subscribed and Paid-up

Govt. Securities

Capital ,, 21,64,000
Reserve and Other Funds ,, 15,95,000
Deposits ,, 8,29,00,000
Cash and Investments in

Working Capital ,, 9,58,10,000 Annual Turnover exceeds Rupees Two Hundred Fifty Crores (Government Audit Classification "A").

5,37,19,000

Chairman: Khan Bahadur Shaikh Mohamedally Allabux. Managing Director: Zain G. Rangoonwalla, J.P.

Branches: Jariwalla Building, Null Bazar, Bombay 3. Phone: 332778. 294, Abdul Rehman Street, Bombay 3. Phone: 325961 (5 Lines). Hanjer Cinema Bldg., Jogeshwari West, Bombay-60. Phone: 573793. 12, 18, Khara Tank Road, Bombay-3. Phone: 331841. Opp. Byculla Rly. Station, Bombay 27. Phone: 370889. 224, Cadell Road, Mahim, Bombay 16 (DD). Phone: 455427. 247, Maulana Azad Road, Bombay 8. Phone: 374480. 253-261, Bazargate Street. Fort. Bombay 1 BR. Phone: 264996.

Bazargate Street, Fort, Bombay I BR. Phone: 264996.
Seasonal Sub-Office: Mohamed Haji Saboo Siddick
Musafirkhana, Carnac Road, Bombay I.
Gujarat Branches: Fuvara, Gandhi Road, Ahmedabad I.

Gujarat Branches: Fuvara, Gandhi Road, Ahmedabad I. Sub-Office: Tilak Road, Near Zakaria Mosque, Ahmedabad-I.

All kinds of Banking Business Transacted.

# THE HONGKONG AND SHANGHAI BANKING CORPORATION

(Incorporated in Hong Kong with Limited Liability)

Head Office: Hong Kong.

Chairman: The Hon. J. A. H. Saunders, D.S.O., M.C.

Capital Authorised ... ... HK \$500,000,000 (Rs. 62,50,00,000)

Capital Issued and

Fully Paid-up .. .. HK \$382,583,250 (Rs. 47,82,29,062)

Banking and Exchange Business of every description transacted with the Principal Commercial Centres of the World.

A Comprehensive Service as Trustees and Executors is also undertaken by the Bank's Trustee Companies in Hong Kong, London and Singapore.

Bombay Office 16, Veer Nariman Road.

Calcutta Office
31, Dalhousie Square.
T. G. Mead—Manager.

J. V. Hewitt—Manager.

# THE MAHARASHTRA STATE CO-OPERATIVE BANK, LIMITED

(Incorporating the Vidarbha Co-op. Bank Ltd.).

Head Office: 9, Bakehouse Lane, Fort, Bombay 1.



Regional Office: Mahal, Nagpur.

Collection arrangements in all the important cities of Indian Union. Banking business of every description transacted. Deposits of all kinds accepted.

	As on 31-12-1969		
Capital & Reserves		000	Rs. 1,500 Lakhs
	6.00	107	Rs. 7,000 Lakhs
Working Capital		ing enter	Rs. 15,600 Lakhs

# Branches in Greater Bombay:

	Di differies III	O' CULCI	Donnbuy .
(1)	Andheri.	(9)	Mahim.
(2)	Borivli.	(10)	Matunga.
(3)	Byculla.	(11)	Malad.
(4)	Chembur.	(12)	Mulund.
(5)	Dahisar.	(13)	Prabhadevi.
(6)	Goregaon.	(14)	Santa Cruz.
(7)	Khar.	(15)	Sion.

(8) Lalbaug. (16) Vile-Parle (East). (17) Vile-Parle (West).

Apex of the Integrated Co-operative Credit Structure with over 1,000 offices of Central and Urban Co-operative Banks in the State.

# NATIONAL AND GRINDLAYS BANK LTD.

(Amalgamating National Bank of India Ltd., Grindlays Bank Ltd., The Eastern Branches of Lloyds Bank Limited, and Branches of The Ottoman Bank outside Turkey and Western Europe).

Registered in London under the Companies Act of 1862 on 23rd March 1866. Established in Calcutta on 29th September 1863.

The Liability of Members is limited.

Head Office: 23, Fenchurch Street, London E.C. 3.

The Bank conducts all classes of Banking and Exchange Business throughout the World. Trusteeships and Executorships are undertaken. A Merchant Banking Division operates from Bombay.

Bombay Branches: 90, Mahatma Gandhi Road; Mint Road (Corner of Mint Road and Sir P. M. Road); 270/272, Dr. Dadabhoy Naoroji Road (Lloyds Branch), 21/29, Shamaldas Gandhi Marg (Lloyds Branch), Bombay·2; 97, Kazi Syed Street, Mandvi, Bombay 3; 65F, Linking Road, Santa Cruz (West), Bombay 54; Shivaji Mandir, N. C. Kelkar Road, Dadar, Bombay 28; 574, Gowalia Tank Road, Cumballa Hill, Bombay 26; 24B, Club Road, Byculla (Next to Maratha Mandir), Bombay 8; Next to Castle Mills: Agra Road, Kolbad Road, Thana, N. Bombay; 377, Swami Vivekananda Road, Vile Parle, Bombay 56; 43, Mahatma Gandhi Road, Ghatkopar, Bombay 77.

Bankers Associated: First National City Bank, Lloyds Bank Limited.

STATE BANK OF INDIA

(Constituted under the State Bank of India Act, 1955)

Authorised Capital Rs. 20,00,00,000 Paid-up Capital as on 31-12-1969 Rs. 5,62,50,000

Reserve Fund and other Reserves as on 31-12-1969

Rs. 14,35,00,000

Local Head Offices: Ahmedabad, Bombay, Calcutta, Hyderabad, Kanpur, Madras and New Delhi.

Foreign Offices:

London Office: Clements House, 14/18, Gresham Street, London, E.C.2.

Colombo Branch: 16, Princess Street, Colombo-I (Ceylon). Representative Offices:—

(a) Western Europe: Goethestrasse 26-28, 6, Frankfurt (Main), West Germany.

(b) U.S.A., Canada and Latin America: 44, Wall Street, New York N. Y. 10005, U.S.A.

Total Number of Offices 1,884 upto 30th June 1970.

Chairman: Shri R. K. Talwar.

Managing Director: Shri T. R. Varadachary.

Names of Subsidiaries: State Bank of Bikaner & Jaipur, State Bank of Hyderabad, State Bank of Indore, State Bank of Mysore, State Bank of Patiala, State Bank of Saurashtra, State Bank of Travancore.

#### SYNDICATE BANK

THE BANK WHICH CONSIDERS
'NO MAN IS TOO SMALL FOR A BANK ACCOUNT'

Choose from our various Savings Schemes and ensure a better future. Our Cash Certificates are ideal for presentations on occasions of Marriages, Upanayanam, and Birthdays.

# Branches in Bombay:

Fort
 Mandvi
 Andheri East
 Matunga
 Broach Street
 Lamington Road
 Khar
 Malabar Hill

Every man's bank for every banking need.

SYNDICATE BANK
(A Government of India Undertaking)

Custodian:

K. K. Pai.

Head Office :

Manipal.

#### BATTERIES

Amzel Pvt. Ltd.—Nusser House, M. P. Marg, Bombay 4.
Associated Battery Makers (E) Ltd.—Savoy Chambers,
Wallace Street, Bombay 1.

Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard

Estate, Fort, Bombay 1.

Battery Service Pvt. Ltd.—1-1/A, M. Paramanand Marg, Bombay 4.

Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.

Chloride & Exide Batteries (Eastern) Ltd.—Savoy Chambers, Wallace Street, Bombay 1.

Estrela Batteries Ltd.—Yusuf Building, Veer Nariman Road, Fort, Bombay 1.

General Radio & Appliances Pvt. Ltd.—Opera House, Bombay 4.

Havero Industries Ltd.—Industrial Estate, Lal Baug, Bombay 12.

Himco (India) Pvt. Ltd.—Kandivta M. Vasanji Road, Bombay 59.

Industrial Machinery & Tools Corp.—Indira Nivas, 1st Floor, Avantikabai Gokhale Street, Bombay 4.

Modern Electric Corporation.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Provincial Motor Car Co., Ltd.—New Queen's Road, opp. Opera House, Bombay 4.

Ruby Battery Corporation (Pvt.) Ltd.—31, French Bridge, Lila House, Chowpatty, Bombay 7.

Sarabhai & Co.—Western India House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Standard Batteries Ltd.—Vakola, Bombay 25.

Turner Hoare & Co., Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Union Carbide India Ltd.—Laxmi Building, Sir P. M. Road, Fort, Bombay 1.

Universal Services Corporation Ltd.—Mody Chambers, French Bridge, Bombay 7.

Winner Batteries.—7, Udyognagar, S. V. Road, Goregaon West, Bombay 62.

#### **BISCUIT MANUFACTURERS**

Baker Perkins (Exports) Ltd.—8, Dongersey Road, Malabar Hill, Bombay 6.

B. N. Biscuit & Confectionery Works.—Hathibaugh, Love Lane, Mazagaon, Bombay 10.

Britannia Biscuit Co., Ltd.—Reay Road East, Mazgaon, Bombay 10.

J. B. Mangharam & Co., 12, Gunbow Street, Fort, Bombay 1.

Parle Products (Pvt.) Ltd.—Thackersey House, Graham Road, Ballard Estate, Bombay 1.

Renown Biscuit Co.—Connaught Road, near Victoria Gardens, Bombay 27.

Shalimar Biscuits Pvt., Ltd.—Sun Mill Estate, Lower Parel, Bombay 13.

Shangrila Food Products Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Spencer & Co. Ltd.—Spencer's Building, Forjett Street, Bombay 26.

#### **BOILER TUBES & ACCESSORIES**

Echjay Industries Pvt. Ltd.—Kanjur Village Road, Bhandup, Bombay 78.

Imanes Pvt. Ltd.—94, S. V. Road, P.O. Box 8002, Bombay 56 (AS). Laxmi Boilers.—22-A, Lamington Road North, Bombay 11.

M. J. Patel & Co.-177, Nagdevi Street, Bombay 3.

Patel Brothers & Co.—41, Nagdevi Cross Lane, Bombay 3. P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3.

R. Ochhavlal & Co.—86, Nagdevi Street, Bombay 3.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1. Stewarts and Lloyds of India Ltd.—Himalaya House, Palton Road, Bombay 1.

## **BOOKS MANUFACTURERS**

All India Book Mfg. Co.—Bharat Nagar, Bombay 7.

Arvind Book Mfg. Co.—107, Khadilkar Road, Bombay 4. Bharat Book Mfg. Co.—37-M, Khotachiwadi, Bombay 4. Bhave Pvt. Ltd.—242, Belasis Road, Bombay 8.

Bombay Paper Stationery,—KSA Building, Bhavani

Shankar Road, Bombay 28.

Crystal Stationery Mart.—146, Abdul Rehman Street, Bombay 3.

Deelip Stationery Mart.—299, Abdul Rehman Street, Bombay 3.

Famous Ruling Press.—Patanwalla Bldg., Connaught Road, Bombay 27.

Federal Book Mfg. Depot.—23/25, Mirza Street, Bombay 3.
Fidvi Printing Press.—179, Abdul Rehman Street, Bombay 3.

Gandhi Stationery Mart.—Vithalbhai Patel Road, Bombay 4.

General Printing Press.—185, Abdul Rehman Street, Bombay 3.

Golden Book Mfg. Depot.—Wadala Udyog Bhavan, Bombay 31.

Hatim & Co., Bookwalla.—Abdul Rehman Street, Bombay 3.

Jai Bharat Stationery Mart.—50/56, Sutar Chawl, Bombay 2.

Janata Book Mfg. Co.—27, Mirza Street, Bombay 3.

Jyot Book Mfg. Depot, 162, Abdul Rehman Street, Bombay 3.

Kapadia Book Depot.—Bhajipala Lane, Bombay 3.

Modern Book Mfg. Co.—Khetwadi Main Road, Bombay 4.Oswal Book Mfg. Depot.—193, Abdul Rehman Street, Bombay 3.

Paramount Book Mfg. Co.—27, Sutar Chawl, Bombay 2. Parekh & Co.—243-45, Sheik Memon Street, Bombay 2.

Porwal Book Mfg. Depot.—90-C, Khetwadi Main Road, Bombay 4.

Prakash Book Mfg. Co.—272, Abdul Rehman Street, Bombay 3.

Rajat Stationery Mart, 83, Abdul Rehman Street, Bombay 3.

Ravi Book Mfg. Co.—Bhajipala Lane, Bombay 3.

Regal Book Depot.—48, Mirza Street, Bombay 3.

R. K. Paper Industries, Ltd.—Sutar Cnawl, Bombay 2.

Rotapress Pvt. Ltd.—Rahimtoola House, Homji Street, Fort, Bombay 1.

Sailesh Book Mfg. Co.—3, Oval Wadi, Mughbhat Lane, Bombay 4.

Sarvodaya Book Depot (A. G. Bookwalla).—9-13, Mirza Street, Bombay 3.

Shah Book Mfg. Depot.—256, Abdul Rehman Street, Bombay 3.

Shamsheer Printing Press.—203, Abdul Rehman Street, Bombay 3. Shashikant & Co.-8th Khetwadi Lane, House No. 8, Bombay 4.

S. M. Moloobhoy & Sons.—205, Abdul Rehman Street, Bombay 3.

S. T. Bookwalla.—Bhajipala Lane, Bombay 3.

Suresh Stationery Mart.-285, Abdul Rehman Street, Bombay 3.

Virendra Book Depot.—48, Mirza Street, Bombay 3.

Young Rising Printing Press.—Shamshet Street, Bombay 3.

Zenith Paper Products.—Noble Chambers, Parsee Bazar Street, Bombay 1.

### **BOOKSELLERS, PRINTERS AND PUBLISHERS**

A. H. Wheeler & Co. Pvt. Ltd.—Eruchshaw Building, 249, Dr. Dadabhoy Naoroji Road, Bombay 1.

Allied Publishers Pvt. Ltd.—15, Graham Road, Bombay 1. All India Book Supply Co.—342, Kalbadevi Road, Bombay 2 (BR).

Asia Publishing House Pvt. Ltd.—Calicut Street, Ballard Estate, Bombay.

Asian Trading Corporation.—310, The Mirabelle, 33/A, Marine Lines, Bombay 20.

Bennett, Coleman & Co., Ltd.—Times Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Bharatiya Vidya Bhavan.—Chowpatty, Bombay 7.

B. I. Publications.—359, Dr. D. N. Road, Bombay 1. Blackie & Sons (India) Ltd.—103/5, Fort Street, Bombay 1.

Bombay Book Depot.—217, Charni Road, Girgaum, Bombay 4.

Bombay Book House.—Kamani Chambers, 4th Floor, Nicol Road, Ballard Estate, Bombay 1 (BR).

Bombay Book Co.—Shriram Mansion, Lower V. P. Road, Girgaon, Bombay 4 (BR).

Book Centre Pvt. Ltd.—Ranade Road, Dadar, Bombay 14. Charles Lambert & Co.—101, Mahatma Gandhi Road, Fort, Bombay 1.

Claridge, G., & Co., Ltd.—Bhagat Singh Road, Fort, Bombay 1.

Co-operators' Book Depot.-9, Bakehouse Lane, Fort, Bombay 1.

Current Book House.—3, Maruti Lane, Raghunath Dadaji Street, Bombay 1.

Current Technical Literature Co. Pvt. Ltd.—India House, Opp. G.P.O., Bombay 1 (BR).

Dominion Publishers.—23, Bell Bldg., Sir P. M. Road, Bombay 1.

Educational Book Co.—Anand Sagar Bldg., Garden Street, Shankar Shet Road, Bombay 2 (BR).

Educational Publishing Co.—17, Benham Hall Lane, Girgaum, Bombay 4.

Hind Kitabs Ltd.—261-263, D. N. Road, Fort, Bombay 1. India Book House.—Rusi Mansion, 2nd Floor, 29, Wodehouse Road, Bombay 1 (BR).

International Agencies (Regd.).—195, Dr. Dadabhoy

Naoroji Road, Bombay 1. International Book House Ltd.—Ash Lane, Mahatma

Gandhi Road, Fort, Bombay 1. Jaico Publishing House.—125, Mahatma Gandhi Road,

Bell Lane, Bombay 1. Kitab Mahab—Sohrab House, 235, Dr. D. N. Road, Fort, Bombay 1.

Kothari Book Depot.—King Edward Road, Parel, Bombay 12.

# We Print & Manufacture

## \* DIARIES

Which are useful to your customers

## \* BOXES

Which keep safe your products

## \* LABELS

Which inform about your products

## \* INSERTS

Which give full details about your products And for such many other things

Write to:

# KUMAR ART PRINTERS

211/19, D'Mello Road, (Frere Road) near G.P.O. Fort, Bombay-1.

Give us a chance to give you what we have. Let our printing be your salesmen.

Lalwani Brothers.—Taj Building, Dr. D. N. Road, Bombay 1.

Macmillan & Co., Ltd .- "Macmillan Building," 276, Dr. Dadabhoy Naoroji Road, Bombay 1.

New Book Co. Pvt. Ltd.—"Kitab Mahal," 188-190, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

New Photoplay Co.-11, Yusuf Bldg., Mahatma Gandhi Road, Bombay 1.

New Popular Book Shop.—Nana's Chowk, Gowalia Tank Road, Bombay 7.

N. M. Tripathi Pvt. Ltd.—164, Princess Street, Bombay 2. Nootan Book Depot.—159, Khetwadi Back Road, Opp.

Tulsi Bldg., Bombay 4 (BR). Orient Logmans Ltd.—Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay 1.

Oxford University Press.—Oxford House, Apollo Bunder, Post Box No. 31, Bombay 1.

Padma Publications Ltd.—53, Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Pioneer Book Depot.—Dr. D. N. Road, Fort, Bombay 1.

Pocket Book Distributing Co.—Examiner Press Bldg., 2nd Floor, Dalal Street, Fort, Bombay 1.

Popular Book Depot (Regd.).—Dr. Bhadkamkar Road, Bombay 7.

Rachana Printers & Publishers.-6, T. K. Industrial Estate, Sewree, Bombay 15.

Taraporevala, D. B., Sons & Co.—210, D. N. Road, Fort, Bombay 1.

Thacker & Co. Ltd.—Evergreen Industrial Estate, Shakt Mill Lane, off Dr. E. Moses Road, Bombay 11.

Tripathi, Ltd., N. M.-164, Gandhi Marg, Bombay 2.

Vakils, Feffer & Simons Pvt. Ltd.—Hague Bldg., 9, Sprott Road, Ballard Estate, Bombay 1.

Vora & Co. Publishers Pvt. Ltd.—3, Round Building, Bombay 2.

Willey Eastern Pvt. Ltd.—New Mulji Mistry Bldg., Tejpal Road, Vile Parle (East), Bombay 57.

Writers' Emporium Pvt. Ltd.—Khorshed Building, Sir Phirozshah Mehta Road, Fort, Bombay.

#### **BRIGHT BARS SHAFTINGS**

Ajmera Brothers.—192A, Panjrapole Main Road, Bombay 4.

Chase Bright Steel Ltd.—Meher Chambers, Nicol Road, Ballard Estate, Bombay 1.

Duchjraman Steel Corpn.—33, 1st Carpenter Street, Bombay 4.

India Tube Mills & Metal Industries Pvt. Ltd.—126, Narayan Dhuru Street, Bombay 3.

Mehta Engineering Works.—405, Loha Bhuvan, P. De-Mello Road, Bombay 9.

Rajasthan Commercial.—Ismail Bldg., 1st Floor, 46, Veer Nariman Road, Bombay 1.

Ram Engineering Works.—57, 2nd Bhoiwada, Bhuleshwar, Bombay 2.

R. Savailal & Co.—39, Sindhi Lane, Bombay 4.

Silver Steel & Minerals.—C-3, Jeevan Jyot, 18/20, Cawasji Patel Street, Bombay 1.

#### CABLES & WIRES

Ajit Industries.—58, Andheri Kurla Road, Andheri East, Bombay 59.

Asian Cables Corporation Ltd.—"Nirmal", 241, Backbay Reclamation, Bombay 20.

# DEVIDAYAL CABLE INDUSTRIES LIMITED

Gupta Mills Estate, Reay Road, Bombay 10.

Telegrams: TRIMEL. Telex: TRIMEL 2741.

Telephones: Office: 372151 (4 lines); Factory: 593471.



## Manufacturers of:

Super Enamelled Copper wires, E.S.C.C. wires, Cotton covered wires and strips, Paper covered wires and strips, Welding Cables, PVC/Polythene Cables, V.I.R. Cables, T.R.S. Cables, Flexibles, Glass Insulated wires, Steel and Alloy Steel wires, Mild Steel Galvanized and Black Hard Bright wires, High Tensile wires, Spring Steel wires, ACSR Core wires, Stainless Steel wires, Nickel Chromium Resistance wires — all to B.S. and I.S. Specifications.

Bharat Cables Pvt. Ltd.—Haji Adam Mansion, Home Street, Bombay I.

Bharat Insulation Co.—165, Kika Street, Bombay 4.

Bombay Cable Co. Pvt. Ltd.—United Bank of India Bldg., 6th Floor, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Bombay Insulated Cables & Wires Co.—10, Himalaya House, 79, Palton Road, Bombay 1.

British Insulated Callender's Cables Ltd.—Esplanade House, Waudby Road, Bombay 1.

Cable Corporation of India Ltd.—Dattapada Road, Borivli East, Bombay 92.

Elde Corporation.—Ismail Building, Dadabhoy Naoroji Road, Fort, Bombay 1.

Fort Gloster Industries Pvt. Ltd.—1462, Harilela House, Mint Road, Bombay 1.

Henley Cables India Ltd.—Henley House, Ballard Estate, Bombay 1.

Hindustan Transmission Products.—20, Khetan Bhavan,

198, Jamshedji Tata Road, Bombay 20. Indian Cable Co., Ltd.—Esplanade House, Waudby

Road, Bombay 1.

Johnson & Philips Ltd.—Kaiser-i-Hind Building, Currim-

bhoy Road, Ballard Estate, Bombay 1. Oriental Power Cables Ltd.—Fazalbhoy Bldg., M. Gandhi

Road, Bombay 1.
Plasticables Pvt. Ltd.—Lentin Chambers, 34, Dalal

Street, Fort, Bombay 1.
Power Cables Pvt. Ltd.—24, S.A. Brelvi Road, Bombay 1.

Promer Rubber & Cable Industries.—Jamal Building, 211, Nagdevi Street, Bombay 3.

Pyrotenax India Limited.—9, Wallace Street, Fort, Bombay 1.

Rajasthan Cable Industries Ltd.—Todi Estates, Lower Parel, Bombay 13.

Ravin Trading Co.—5, Mohatta Market, Palton Road, Bombay 1.

Shakti Insulated Wires Pvt. Ltd.—22, Apollo Street, Bombay 1.

Shamsher Sterling Cable Corporation Ltd.—Vaswani Mansion, Dinshaw Vachha Road, Bombay 20.

Sylvex Cable Co., Pvt. Ltd.—Behind India Cork Mills, Saki-Vihar Road, Bombay 70.

Thermo Plastic Industries.—78, Lad Path, Bombay 33.

# CARDBOARD & CORRUGATED BOXES MFRS. (CARTONS)

Afzal Paper Box Factory.—43, Foras Road, Bombay 8. Allenbury Engineers Pvt. Ltd.—Haines Road, Mahalaxmi, Bombay 11.

Ciem Trading Co. Pvt. Ltd.—Ciem Estate, Ramchandra Lane Extn., Malad, Bombay 64 (N.B.).

Elphinstone Paper Box Mfg. Co.—S. No. 10, Off Ram Mandir Road, Goregaon West, Bombay 62.

Everest Packaging Corporation.—Mahal Estate, Mahakali Caves Road, Bombay 69.

India Corrugating Industries Pvt. Ltd.—37-A, Parel Crosslane, Chinchpokli, Bombay 12.

Jayant Paper Box Factory.—30, Western India House, Sir P. M. Road, Bombay 1.

Kadri Paper Box Factory.—30, Mohamedali Road, Bombay 3.

Mohamadi Fine Art Litho Works,—Mohamadi Buildings, Gunpowder Road, Mazagon, Bombay 10.

National Paper Box Factory, 82-86, A. R. Street, Bombay 3.

Packfine Corrugating Industries.—7, Sadhana Ind. Estate, Jogeshwari, Bombay 60.

Paradise Paper Products.—78/A, Princess Street, Bombay 2.

Ryland Paper Box Manufacturing Co.—Industrial House, Lady Jamshedji Road, Mahim, Bombay 16.

Samkay Industrial Corpn.—Ashok Silk Mills Compound, 144, Dharavi Road, Bombay 17.

Saurashtra Packaging Service.—204, Dr. D. N. Road, Bombay 1.

Standard Paper Box Mfg. Co.—51, Mangaldas Road, Lohar Street, Bombay 2.

Subandhu Corrugating Industries.—123, Bhimpura Dongri Street, Bombay 9.

Swastik Paper Industries.—Sewri Cross Road, Bombay 15.

## CANDLES MFRS.

# INDIAN WAX INDUSTRIES

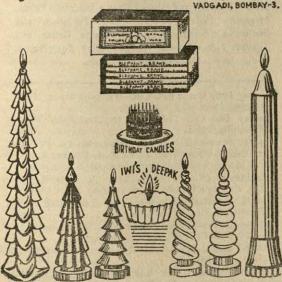
Manufacturers, Importers, Exporters & Suppliers
Quality Candles & Wax Products.

Biggest Candle Manufacturers in

2.ShriRamMarket, Vadgadi.BOMBAY-3.BR. PHONE BRANCHOFFICE. 322673 FACTORY. 591412 RESI. 393971 HEAD OFFICE 4, HARESH CHAMBERS, 313/319, SAMUEL St.

HEAD OFFICE

320377



#### CHAINS

Abdulhusein Peerbhai & Sons.—66-68/A, Peerbhai Building, Bhandari Street, Bombay 3.

Amirudin Shalebhoy Tyebjee & Sons.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1.

Ashok Steel Chain Mfg. Co.—Plot No. 6, Sewree Cross Road, Bombay 15.

Aston Green & Co.—118, Sir Vithaldas Chambers, 16, Apollo Street, Bombay 1. Britex Industries.—70, Podar Chambers, Parsi Bazar Street, Bombay 1.

Damania & Co.-25, Bank Street, Bombay 1.

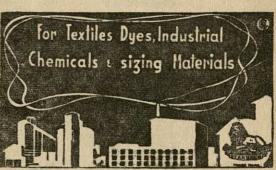
Escofalli Esmailji Karachiwalla & Co.—43-45, Bhandari Street, Bombay 3.

Heptoola Nooruddin & Co.—154, Nagdevi Street, Bombay 3.

Indian Link Chain Mfrs. Ltd.—L. B. Shastri Marg, Bhandup, Bombay 78.

Jayantkumar & Co.—35, Hamam Street, Bombay 1. Shalebhoy Tayebjee & Sons.—12, Bruce Street, Bombay 1.

# CHEMICALS (IMPORTERS & STOCKISTS)



# The New Standard Chemicals Co. Private Ltd.

Importers & Wholesalers of:

Textile Dyes, Industrial Chemicals etc.
281, Samuel Street, Vadgadi,
BOMBAY 3.

Telegram : "PARTICULAR"

Telephone Nos. 323844, 322169, 572510. Chairman & Mg. Dir.: Keshavlal Naranjee Bhatt.

Exec. Director: Rasiklal K. Bhatt.
Director: Anantraj H. Bhatt.
Director: Jawahar K. Bhatt.

Sales Manager: Kalyanji J. Mehta. Secretary: Jayantilal S. Rajyagor. Branch Manager: Parmanand N. Bhatt.

Eranch Office: Gopal Bhuvan, Birhana Road, Kanpur (U.P.). Phone: 62858.

(ORIGIN 1916)

## CHEMICAL MANUFACTURERS & DEALERS

Ahura Chemical Products Pvt. Ltd.—84, Sion Road, Bombay 22.

Albright Morarji & Pandit Ltd.—Saheb Bldg., 195, Dr. D. N. Road, Bombay 1.

Alembic Distributors Ltd.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Alta Laboratories Ltd.—Vissonji Park, Naigaum Cross Road, Bombay 14.

Amar Dye-Chem Ltd.—11, Rang Udyan, S.T. Road, Bombay 16.

Arlabs Pvt. Ltd.—6, India House, 2nd Floor, Fort Street, Bombay 1.

Atul Drug House Ltd.—Organic Chemical Division, 85, Dr. Annie Besant Road, Worli, Bombay 18.

Baroda Rayon Corporation Ltd.—Great Western Bldg., 1st Floor, 130/132, Apollo Street, Bombay 1.

For your requirements such as . . .

# • LABORATORY CHEMICALS & REAGENTS

Manufactured by

(BDH) a division of Glaxo Laboratories India Ltd., and Sarabhai M. Chemicals Ltd.

# • INDUSTRIAL CHEMICALS & SOLVENTS

Repacked by

M/s 'AMRUT' Industrial Products

# DRUGS & PHARMACEUTICAL CHEMICALS

Repacked by

M/s 'GLOBE' Products

Please Contact:

# AMRUTLAL BHURABHAI & CO.

Dealers & Direct Importers of

Industrial, Photographic & Laboratory Chemicals, Indicators, Stains & Reagents etc.

Anand Bhuvan, Princess Street, BOMBAY 2 (BR)

Phones: 311023, 311024 & 311025

Grams:
"CHEMDRUGS"
Bombay-2 (BR)

# CHEMICALS

Particularly

Ferric Chloride Lumps, Ferric Chloride Anhydy,
Tin Chloride, Ammonium Phosphate Diabasic,
Ammonium Phosphate Monobasic,
Ammonium Nitrate, Camphor Powder,
Ammonium Acetate, Ammonium Oxalate,
Ferrous Chloride, Mercury Salts,
Calcium Formate, Sodium Formate
& Acid Phosphoric.

Contact:

# ASIAN CHEMICAL CO.

Manufacturers of Heavy & Fine Chemicals
Chemical House, Agra Road, Post Box No. 2,
Thana (Bombay)

Thana Phone: 591257. Grams: "CHEMICAL".

Bayer (India) Ltd.—Express Estates, Nariman Point, Bombay 1.

Bengal Chemical & Pharmaceutical Works Ltd.—Savarkar Marg, Bombay 25.

# BHARAT PULVERISING MILLS PRIVATE LTD.

Bombay Office: "Hexamar House," 28, Sayani Road, Bombay 25. Telephones: 457281 (4 Lines). Grams: "HEXAMAR", Dadar, Bombay. Telex No. 011-2017.

Madras Office: 1074, Thiruvottiur High Road, Madras 19. Telephones: 51240, 51618. Telex No. 041-362.

New Delhi Office: 61/27, W.E.A. Ramjas Road, Karol Bagh, New Delhi. Phone: 57049. Telex No. 031-646.



# Manufacturers and suppliers of :

Agricultural Chemicals • Fertilisers and Manure Mixtures • Minerals and Mineral Ores • Industrial Paints, Magnesite Flooring Compositions • Potassium and Sodium Bichromates • Chrome Oxide Green and Glauber Salts • Dusting and Spraying Equipments, Miscellaneous Chemicals.

Bombay Drug House Pvt. Ltd.—Tulsipipe Road, Mahim, Bombay 16.

Bombay Gas Co., Ltd.—214, Dr. Dadabhoy Naoroji Road, Bombay 1.

Bombay Sewree Chemicals Manufacturing Co. Pvt. Ltd.
—Shale Building, Bank Street, Fort, Bombay 1.

Borax Morarji Ltd.—84, Nariman Road, Bombay 20. Camphor & Allied Products Ltd.—Jehangir Building,

133, Mahatma Gandhi Road, Bombay 1.
Chawla Chemical Industries Pvt. Ltd.—Haji Adam

Mansion, 6, Homji Street, Bombay 1.

Chemical, Industrial & Pharmaceutical Laboratories Ltd.

—289, Bellasis Road, Byculla, Bombay 8.

Chemo-Pharma Laboratories Ltd.—Plot No. C.S. 215, Sewri, Bombay 15.

Dai-Ichi Karkaria Pvt. Ltd.—Liberty Building, New Marine Lines, Bombay 20.

Dharamsi Morarji Chemical Co., Ltd.—Prospect Chambers, Annexe, 317-21, Dr. D. N. Road, Bombay I.

Dujodwala Industries.—95-B, Marine Drive, Megh Doot, Bombay 2.

Dumex Pvt. Ltd.—Wavell House, Graham Road, Ballard Estate, Bombay 1.

Excel Industries.—184, S. V. Road, Bombay 60.

Fairdeal Corporation (Pvt.) Ltd.—'Lakshmi Bldg.', Sir Phirozshah Mehta Road, Fort, Bombay 1.

Glaxo Laboratories (India) Pvt. Ltd.—Dr. A. B. Road, Bombay 18. Golden Chemicals Pvt. Ltd.—"Tobacco House," Vile Parle, Bombay 56.

# QUALITY CONTROLS

# CHEMICALS

The finest international quality chemicals now manufactured in India and marketed at Competitive Price.

raceared in maia and marketed a	COII	ipetitiv	e Price
* Ammonium Chloride	I.P.	C.P.	A.R.
* Ammonium Sulphate			
* Barium Chloride	"	"	"
* Magnesium Sulphate	- 33	"	,,
Plagnesium Sulphate	22	,,,	,,
* Potassium Acetate	. 23	,,	**
* Potassium Chloride	1)	,,	
* Potassium Sulphate	,,		
* Sodium Chloride		",	"
* Sodium Citrate	"	"	"
* Sodium Nitrate	99	22	"
* Callin Altrate	23	**	11
* Sodium Acetate—Anhydrous	"	22	33
* Sodium Carbonate—Anhydrous	,,	,,	,,
* Zinc Sulphate	11	11	
* SOLVENTS :	"		111
* Acetone		C.P.	A D
* Benzene		C.F.	A.R.
Delizene		,,,	**
* Toluene		11	***
and			

All Acids C.P./A.R.
Also we can offer these products in IP, BP, CP & Extra
pure grade if desired.

#### Contact :

# GLOBE PRODUCTS

P. Box No. 2448, Bombay-2 BR.
Phone: 311023 (3 Lines).
Gram: "CHUDGORECO", Bombay 2.

Hansa Chemical Works.—Amar Estate, Sion-Trombay Road, Bombay 71.

Hardcastle Waud & Co., Pvt. Ltd.—Alice Building, D. N. Road, Fort, Bombay 1.

Herdillia Chemicals Ltd.—United India Building, Sir Pherozshah Mehta Road, Bombay 1.

Hindustan Chemical Works Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Hoechst Dyes & Chemicals Ltd.—Parekh Mahal, Vir Nariman Road, Churchgate, Bombay 20.

I.C.I. (India) Pvt. Ltd.—Crescent House, Wittet Road, Bombay 1.

Indian Organic Chemicals Ltd.—28, Apollo Street, Bombay 1.

Indo-Nippon Chemical Co. Ltd.—Alice Building, Dr. D. N. Road, Bombay 1.

Indo-Pharma Pharmaceutical Works.—Shanti Bhuvan, Kohinoor Road, Dadar, Bombay 14.

J. K. Chemicals Ltd.—J. K. Building, Dougall Road, Ballard Estate, Bombay 1.

Kashyap Chemical Industries.—517, S. V. Road, Opera House, Bombay 4.

K. C. A. Pvt. Ltd.—Rang Udyan, Sitladevi Temple Road, Mahim, Bombay 16.

Kesar Sugar Works Ltd.—(Chemical Division), 7, J. Tata Road, Bombay 20.

Liberty Chemical Works.—Nagardas Road, Mogra West, Bombay 69.

Mira Chemical Works.—Chinchpokli, Bombay 27.

# METTUR CHEMICALS

# METHYL CHLORIDE METHYLENE DICHLORIDE CHLOROFORM CARBON TETRACHLORIDE

(Refrigerant grade)

## Manufacturers:

The Mettur Chemical & Industrial Corporation Ltd., Mettur Dam R. S. Salem District.

Enquiries to:

# THE ASSOCIATED CHEMICAL SYNDICATE

Darabshaw House, 2nd Floor, Ballard Road, Bombay-1.

Phones: 266607/266971.

Morani Chemicals Pvt. Ltd.—Parsi Panchayat Road, Andheri (E), Bombay 69.

National Organic Chemical Industries Ltd.—Sandoz House, Dr. A. Besant Road, Bombay 18.

National Peroxide Ltd.—Neville House, Graham Road, Ballard Estate, Bombay 1.

National Rayon Corporation Ltd., The.—Ewart House, Bruce Street, Bombay 1.

National Refinery Pvt. Ltd.—87, Tardeo Road, Bombay

Oriental Pharmaceutical Industries Ltd.—64-66, Tulsi-Pipe Road, Mahim, Bombay 16.

Peddington Chemical Industries (India).—Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Pharmed Pvt. Ltd.—25, Rope Walk Lane, Bombay 1.

Phoenix Chemical Works Pvt. Ltd.—Bachoobai Building, 187, Dr. Dadabhai Naoroji Road, Bombay 1.

Pioneer Equipment Co. Pvt. Ltd.—139, Medows Street, Bombay 1.

Pioneer Magnesia Works, Ltd.—113/115, Mahatma Gandhi Road, Bombay 1.

Polyolefin Industries Ltd.—Neville House, Ballard Estate, Bombay 1.

Polychem Ltd.—7, Jamshedji Tata Road, Bombay 20.

Prakash Chemical Industries.—31, Duncan Causeway, P.B. No. 6775, Sion, Bombay 22.

Raptakos Brett & Co. Pvt. Ltd.—Dr. Annie Besant Road, Worli, Bombay 18.

Ronuk Industries Ltd.—11A, Abdul Gaffar Khan Road, Worli Sea Face, Bombay 18.

Sardesai Brothers Pvt. Ltd.—12-A, Foreshore Road, Bombay 1.

- Magnesium Carbonate light (Govt. of Tamil Nadu)
- Calcium Chloride Solid
   (70-72% Anhydrons 90-92% 75% + 96-97%)
- Magnesium Oxide
- Trisodium Phosphate
- Sodium Phosphate
- Sodium Phosphate Mono-Basic
- Sodium Phosphate Di Basic
- Potassium Phosphate Mono
- Barium Sulphate
- Barium Chloride
- Barium Carbonate
- Phosphoric Acid
- Photographic Chemicals

# PARIKH & SONS

Dubash Chambers, 2nd Floor, Kumpta Street, Ballard Pier, Bombay I.

Phones: 262919 & 329960 Grams: 'NAVMODI'

Sarindage Pvt. Ltd.—14, Murzban Street, Bombay 1. Saurashtra Chemicals.—Industry House, 159, Churchgate Reclamation, Bombay 20.

S. H. Kelkar & Co. Pvt. Ltd.—Bombay Agra Road, Mulund, Bombay 80 NB.

Somaiya Organo-Chemicals Ltd.—Fazalbhoy Building, Mahatma Gandhi Road, Bombay 1 BR.

Sonawala Industries Pvt. Ltd.—137, Sheikh Memon Street, Bombay 2.

Standard Chemical Co. P. Ltd.—9, Wilson Road, Bombay 10.

Star Chemicals (Bombay) Pvt. Ltd.—21, Noble Chambers, Parsi Bazar Street, Bombay 1.

Sturdia Chemicals Ltd.—Neville House, Graham Road, Ballard Estate, Bombay 1 BR.

Surfactant Pvt. Ltd.—28, Apollo Street, Bombay 1.

Swadeshi Chemicals Pvt. Ltd.—3rd Floor, Army & Navy Bldg., Mahatma Gandhi Road, Bombay 1.

Synthetics & Chemicals Ltd.—New Great Insurance Bldg., 7, Jamshedji Tata Road, Bombay 20 BR.

Tata Chemicals Ltd.—Bombay House, Bruce Street, Fort, Bombay 1.

Teddington Chemical Factory Pvt. Ltd.—Suren Road, Andheri, Bombay 69.

Unichem Laboratories.—22, Bhulabhai Desai Road, Bombay 26.

Union Carbide India Ltd.—Kasturi Building, Jamshedji Tata Road, Bombay 20.

Warner Hindustan Ltd.—502, Savarkar Marg, Bombay 25.

West India Chemicals Pvt. Ltd.—32, Apollo Street, Bombay 1.

Western Chemical Industries, Goregaon (East), Post Malad, Bombay 63.

Whiffens (India) Pvt. Ltd.—Ralli House, 21, Ravelin Street, Bombay 1.

Zenith Chemical Works Pvt. Ltd.—4, French Bridge, Bombay 7.

#### CIRCLIPS

B. Chowdhury & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Britex Industries.—70, Podar Chambers, Parsi Bazar Street, Bombay 1.

Fairfield Manufacturing Company.—Hanuman Building, Tambakanta, Pydhonie, Bombay-3 (BR).

Gem Traders.—62, New Stock Exchange Bldg., Apollo Street, Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, Erla, Bombay 56 (AS).

Madhu Engineering Co.—96, Nagdevi Cross Lane, Bombay 3.



SPRING WASHERS, STAR WASHERS & CIRCLIPS



For particulars please contact Manufacturers :

# FAIRFIELD MANUFACTURING CO.

Hanuman Bldg., 4th floor, Tambakanta, Pydhonie, Bombay 3 BR

Phones: 324323, 323758. Grams: "MASRANICOY".

# CLEARING AND FORWARDING AGENTS

Abraham, D., & Sons Pvt. Ltd.—Hague Building, Sprott Road, Ballard Estate, Bombay 1.

Amar Clearing Agency.—Dabholkar Wadi, 384 M, Kalbadevi Road, Bombay 2.

Ardeshir B. Cursetjee & Sons Pvt. Ltd.—6, Rampart Row, Fort, Bombay.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Bhagat & Company.—19, Nazir Building, Calicut Street, Bombay 1.

Bharat Shipping Agency Pvt. Ltd.—Ida Mansion, Karwar Street, Ballard Estate, Bombay 1.

Bombay Shipping Agency.—Beaumon Building, Calicut Street, Fort, Bombay 1.

Buhariwala & Sons.—B.C. 5, Graham Road, 1st Floor, Ballard Estate, Bombay 1.

Cox & Kings (Agents), Ltd.—Lloyds Bank Building, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Eastern Bunkerers Ltd.—Scindia House, Narottam Morarji Marg, Ballard Estate, Bombay 1.

Eastern Shipping Agency.—Asian Building, Nicol Road, Ballard Estate, Bombay 1.

Engineer, S. D., & Son.—Imperial Chambers, 32, Wilson Road, Ballard Estate, Bombay 1.

Express Transport Pvt. Ltd.—Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Freight Carriers Pvt. Ltd.—43, Tamarind Lane, Fort, Bombay.

Girdharlal & Co.—Imperial Chambers, Ballard Estate, Bombay 1.

Gokaldas & Sons.—11-13, Mint Road, Opp. G.P.O., Bombay 1.

Hardcastle, Waud & Co., Ltd.—Alice Building, Dr. D. N. Road, Bombay 1.

Jeena & Co.—10, Veer Nariman Street, Fort, Bombay 1.
J. F. Kapadia & Co.—33, Khorshed Bldg., Sir Phirozshah Mehta Road, Fort, Bombay.

Kanji Jadhavji & Co.—Masjid Bridge, Mandvi, Bombay 9. Kooverjee V. Curumsey & Co.—Lentin Chambers, Dalal Street, Fort, Bombay 1.

Lee & Muirhead (India) Pvt. Ltd.—12, Rampart Row, Bombay 1.

Leslie, E., & Co.—Botawalla Building, 7-10, Horniman Circle, Fort, Bombay 1.

Liladhar Passoo & Co.—Raj Chambers, 4th Floor, 87-A, Broach Street, Bombay-9 BR.

Manilal Mohanlal Karachiwalla.—Laheri House, 81, Mahomedalli Road, Bombay 3.

M. Dharamdas & Co.—Mehta House, Calicut Street, Ballard Estate, Bombay 1.

Mehta & Brothers, D. M.—Eda Mansion, Karwar Street, Fort, Bombay 1.

Mehta, Ramkrishna & Co.—Khandelwal Bhavan, 166, Dr. Dadabhai Naoroji Road, Bombay 1.

Narottam & Pereira Ltd.—Scindia House, Dougall Road, Ballard Estate, Bombay 1.

New Globe Shipping Service Pvt. Ltd.—Khatau Building, 44, Saheed Bhagat Singh Road, Fort, Bombay 1.

N. S. Guzder & Co. Pvt. Ltd.—Neville House, Ballard Estate, Bombay 1.

Odharam Bulchand & Co.—19, Bank Street, Fort, Bombay 1.

Ota India.—159, Colaba Road, Bombay 5.

Overseas Shipping Agency.—76, Bhandari Street, Bombay 3.

P. Cawasji & Co.—Ida Mansion, Karwar Street, Bombay 1. Pioneer Consolidated Co. of India Ltd.—11/13, Botawala Building, Horniman Circle, Bombay 1.

Purshottamdas Madhavani & Co., Pvt. Ltd.—8, Horniman Circle, Fort, Bombay 1.

Safset Agencies.—Jehangir Building, 133, Mahatma Gandhi Road, Fort, Bombay 1. Shroff & Co.—Alice Bldg., Dr. Dadabhoy Naoroji Road, Bombay 1.

Sindhi Clearing Agency.—384-C, Dabholkar Wadi, Kalbadevi Road, Bombay 2.

Sind Oriental Tourist Co.—44, Mint Road, Fort, Bombay 1. Sodder & Co.,—A.M. 11, Bank Street, Bombay 1.

Thos Cook & Son (Continental & Overseas) Ltd.—Cook's Building, Hornby Road, Fort, Bombay 1.

For Worldwide Travel Arrangements
CLEARING — FORWARDING
SHIPPING — WAREHOUSING
INSURANCE

Contact:

# TRADE WINGS PRIVATE LTD.

30, Rampart Row, Fort, Bombay I.

Phones: 290707 (II Lines). Cable: "TRAVEL".
Telex: 'TRAVEL' 0112494

Licensed Clearing & Forwarding Agents.

Branches: Calcutta, New Delhi, Madras, Hyderabad, Bangalore, Poona, Baroda, Madurai, Ranchi and Mangalore.

Travels & Shipping Pvt. Ltd.—Darabshaw House, Dougall Road, Ballard Estate, Bombay 1.

Tulsidas Khimji Pvt. Ltd.—46, Veer Nariman Road, Fort, Bombay 1.

United Transport.—Hague Building, Sprott Road, Ballard Estate, Bombay 1.

Velji Haridas.—83, Bhandari Street, Bombay 3.

#### **COCKS & VALVES**

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3. Advance Tube Co.—99, Nagdevi Street, Bombay 3. C. Vadilal & Co.—40, Nagdevi Cross Lane, Bombay 3 (BR). Edgar Handley & Co. Pvt. Ltd.—139, N. Master Road, Bombay 1.

General Tubes Private Ltd.—142/44, Nagdevi Street, Bombay 3.

Gujarat Tube & Hardware Mart, The.—24, Nagdevi Cross Lane, Bombay 3.

Industrial Manufacturers.—Alliance Building, 94, Nagdevi Street, Bombay 3.

Jivraj & Vrajlal.—122, Nagdevi Street, Bombay 3.

Kadakia Trading Corporation.—3, Bibijan Street, Bombay 3.

# K. AVINASH VKE INDUSTRIES

Registered Office:

'Creado House', Station Road, Goregaon (West), BOMBAY 62 (N.B.).

Phone: 692287.

Grams: "THERMAL". BOMBAY 62.

\*

Manufacturers of:

VKE DENISON' Solenoid valves, 'VKE'
Pressure Reducing Valves, Pneumatic 3 quipments
& Air Cylinders and Electric Oil Pre-Heaters.

Keshawlal Laloobhai.—87 Parsi Gali, Dhanji Street, Bombay 3.

Patel Brothers & Co.—41, Nagdevi Cross Lane, Bombay 3. R. Ochhavlal & Co.—86, Nagdevi Street, Bombay 3. Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1. Sharman Sons.—10, Nagdevi Street, Bombay 3.

Vasant Engg. & Trading Corporation.—57, Bibijan Street, Bombay 3.

#### COTTON MILLS

Ahmedabad Jupiter Spg., Wvg., & Mfg. Co. Ltd.—Indu House, Dougall Road, Bombay 1.

Apollo Mills Ltd.,—N. M. Joshi Marg, Chinchpokli, Bombay 11 (BC).

Bombay Dyeing & Manufacturing Co., Ltd. (Spring Mills).—Naigaum Road, Dadar, Bombay 14.

Bombay Dyeing & Manufacturing Co., Ltd. (Textile Mills).—Elphinstone Road, Parel, Bombay 13.

Bradbury Mills, Ltd.—M. Azad Road, Gadge Maharaj Chowk, Bombay 11.

Central India Spg., Wvg. & Mfg. Co. Ltd.—Bombay House, 24, Bruce Street, Fort, Bombay 1.

Colaba Land & Mill Co., Ltd. Victoria Bunder, Colaba, Bombay 5.

Coorla Spinning & Weaving Co. Ltd.—241, Backbay Reclamation, Bombay 20.

Crown Spinning & Manufacturing Co., Ltd.—16, Apollo Street, Bombay 1.

Dawn Mills Co., Ltd.—7th Floor, Colaba Causeway, Bombay I.

Dhanraj Mills, Ltd.—Sun Mill Road, Lower Parel, Bombay 13.

Digvijaya Spinning & Weaving Co., Ltd.—Lalbaug, Bombay 33.

Finlay Mills, Ltd.—Government Gate Road, Parel, Bombay 12.

Gold Mohur Mills Ltd.—Main Road, Dadar, Bombay 14. Hindustan Spinning & Weaving Mills Co., Ltd.—M. Azad Road, Bombay 11.

India United Mills, Ltd. Mills Nos. 1, 2, 3, 4 & 5.—Dougall Road, Ballard Estate, Bombay 1.

Jam Mfg. Co., Ltd., Mill No. 1.—Lalbaug-Parel, Bombay 12.

Jam Mfg. Co., Ltd., Mill No. 2.—Tokersey Jivraj Road, Sewree, Bombay 15.

Jubilee Mills., Ltd.—Tokersey Jivraj Road, Sewree, Bombay 15.

Kamala Mills, Ltd.—Bapat Marg, Bombay 13.

Khatau Makanji Spinning & Weaving Co., Ltd.—Laxmi Buildings, Ballard Estate, Bombay 1.

Modern Mills, Ltd.—70, Forbes Street, Bombay 1. Moon Mills, Ltd.—General Assurance Building, D. Naoroji Road, Bombay 1.

Morarjee Goculdas Spinning & Weaving Co., Ltd.— Dr. Ambedkar Road, Bombay 12.

Mukesh Textile Mills Pvt. Ltd.—Victoria Bunder Road, Colaba, Bombay 5.

New City of Bombay Manufacturing Co., Ltd.—63, T. Kadam Path, Bombay 33.

New Great Eastern Spg. & Wvg. Co., Ltd.—Ambedkar Road, Bombay 27.

New Kaiser-I-Hind Spinning & Weaving Co., Ltd.—Gorupdeo Road, Bombay 33.

New Pralhad Mills.—East and West Building, Apollo Street, Bombay 1.

Phoenix Mills Ltd.—Senapati Bapat Marg, Lower Parel, Bombay 13.

Podar Mills, Ltd.—N. M. Joshi Marg, Bombay 11.

Prakash Cotton Mills Pvt. Ltd.—Seksari Chambers, Medows Street, Bombay 1.

Raghuvanshi Mills Ltd.—11-12, Haines Road, Mahalaxmi, Bombay 13.

Ruby Mills Ltd.—Lady Jamshedji Road, Dadar, Bombay 28.

Sassoon Spinning & Weaving Co., Ltd.—Mafatlal House, Backbay Reclamation, Bombay 20.

Sayaji Mills Ltd.—Ferguson Road, Lower Parel, Bombay 13.

Seksaria Cotton Mills Ltd.—N. M. Joshi Marg, Bombay 13.
Shree Madhusudan Mills Ltd.—Delisle Road, Bombay 13.
Shree Sitaram Mills Ltd.—N. M. Joshi Marg, Bombay 11.
Simplex Mills Company, Ltd.—30, Clerk Road, Jacob Circle, Byculla, Bombay 11.

Standard Mills Co., Ltd.—Sewri, Bombay 15.

Swan Mills, Ltd.—New Sewree Road, Bombay 15.

Swastik Textile Mills Ltd.—Sion, Trombay Road, Bombay 71.

Victoria Mills Ltd.—N. M. Joshi Marg, Bombay 13.
Western India Spinning & Manufacturing Co., Ltd.—
Dorabshaw House, Ballard Estate Bombay 1.

#### CRUCIBLES

Bombay Tools & Hardware Mart.—123, Narayan Dhuru Street, Bombay 3.

K. B. Gandhi & Co.—277, Sardar Vallabhbhai Patel Road, Bombay 4. Laxmi Trading Co.—274, Sardar Vallabhbhai Patel Road, Bombay 4.

Nagdevi Tool-Steel Mart.—186-88, Nagdevi Street, Bombay 3.

P. Ratilal & Co.-43, Dhanji Street, Bombay 3.

Remex Corporation.—50/7, Tardeo Air-Conditioned Market, Tardeo, Bombay 34.

William Jacks & Co., India P. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

## DIAMOND DRESSING TOOLS

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

Bhukhanvala & Sons.—Medows House, Medows Street, Bombay 1.

Diamond Cutting and Trading Co. Pvt. Ltd.—Daya Mandir, 123/125, Mumbadevi Road, Bombay 3.

Hemant Tools Trading Co.—33, Bibijan Street (Barbhai Mohalla), Bombay 3.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.
Machinery Marketing Corpn.—261, Dr. D. N. Road, Bombay 1.

Star Diamond Tools.—60, Sir P. M. Road, Bombay 1.

## DIESEL ENGINES MANUFACTURERS & DEALERS

Acme Mfg. Co.—Antop Hill, Wadala, Bombay 31.

Agra Engineering Co.—40, Bank Street, Fort, Bombay 1. Batliboi & Company Pvt. Ltd.—P. Box 190A, Forbes Street, Fort, Bombay 1 (BR).

Bearings & Bushings Corpn.—19/21, Hamam Street, Fort, Bombay 1.

Bharat Electric and Engineering Corporation.—Free Press Building, 21, Dalal Street, Fort, Bombay.

British Engineering Co.—103, Apollo Street, Fort, Bombay 1.

Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay 1.

Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort, Bombay 1.

Eastern Machinery and Trading Co.—Imperial Chambers, Wilson Road, Ballard Estate, Fort, Bombay 1.

Greaves Cotton & Co.—1, Forbes Street, Bombay 1.

H.T.C. Diesel Engines Pvt. Ltd.—Beaumon Chambers, Medows Street, Fort, Bombay 1.

Indian Commercial Co., Ltd.—7, J. Tata Road, Bombay 20.
Indo Universal Engineering Co., Pvt. Ltd.—"Shantiniketan," 95-A, Marine Drive, Bombay 2.

International Commercial Corporation.—11, Military Sq. Lane, Bombay 1.

Investa Machine Tools and Engineering Co., Ltd.—Ewart House, Bruce Street, Bombay 1.

Jayems Beechey Co. Pvt. Ltd.—Great Western Building, 1st floor, Apollo Street, Fort, Bombay 1.

J. B. Norton & Sons Ltd.—39, Ibrahim Md. Merchant Road, Bombay 9.

Khimandas Jagumal & Sons.—12, Gunbow Street, Fort, Bombay 1.

Killick Nixon & Co. Pvt. Ltd.—Killick House, Home Street, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Street, Fort, Bombay 1.

Manohar Brothers.—4, Commerce House, Medows Street, Fort, Bombay.

Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Ballard Road, Bombay 1.

Nalin Engineering Co.—71/73, Nagdevi Street, Bombay 3. Numex Engineers.—306, Commerce House, Medows Street, Bombay 1.

Paramount Industrial Stores.—15, Ropewalk Street, Bombay 1.

Power Machines Corporation.—31, Forbes Street, Fort, Bombay 1.

Progressive Engineering Co.—31, Forbes Street, Bombay 1. Protos Engineering Co., Ltd.—173, Jamshedji Tata Road, Bombay 20.

Radium Corporation.—408B, Commerce House, Medows Street, Bombay 1.

Rameshchandra Jeshingbhai, Advani Chambers, Sir P. M. Road, Bombay I.

Ruston & Hornsby (India) Ltd.—1, Forbes Street, Bombay 1.

Singh & Singh.—Victoria Mills Estate, Gamdevi, Bombay 7.

Standard Spares & Machinery Co.—Bouna Casa, Sir Phirozshah Mehta Road, Fort, Bombay.

William Jacks & Co. I. Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

#### DYESTUFFS

Amar Dye-Chem Ltd.—" Rang Udyan", Sitladevi Temple Road, Post Box No. 6471, Mahim, Bombay 16.

Ameer Trading Corporation, Ltd.—Contractor Building, Nicol Road, Ballard Estate, Bombay 1.

Amrit Chem-Dye Industries.—236, Samuel Street, Vadgadi, Bombay 3.

Anand Dyes Industries Pvt. Ltd.—293, Samuel Street, Vadgadi, Bombay 3.

Anglo-American Dyestuffs Corporation Ltd.—Prospect Chambers, Hornby Road, Fort, Bombay 1.

Aniline Dyestuffs & Pharmaceuticals Pvt. Ltd.—28, Apollo Street, Bombay 1.

Arlabs Pvt. Ltd.—India House, Fort Street, Bombay 1. Arvinda Trading Co. Pvt. Ltd.—105, Apollo Street, Fort, Bombay 1.

Asha Dyes Distributing Co.—5, Stadium House, Veer Nariman Road, Bombay 20.

Asian Chemical Industries.—Ghokate Wadi, Aarey Road, Goregaon (East), Bombay-63.

Asiatic Dyestuffs Agency.—306, Samuel Street, Vadgadi, Bombay 3.

Associated Dyestuff Industries.—138/140, D'Souza Street, Vadgadi, Bombay 3.

Azofen Ltd.-61, Apollo Street, Fort, Bombay 1.

Bharat Chemicals Co.—331, Samuel Street, Vadgadi, Bombay 3.

Bharat Dye-Chem Industries.—Gopal Bhavan, Samuel Street, Vadgadi, Bombay 3.

Bharat Texdyes Industries.—Mansoor Building, 98, Princess Street, Bombay 2.

Bhavanidas Gangadas & Co.—235, Samuel Street, Vadgadi, Bombay 3.

Bhuta Brothers.—Co-op. Insurance Bldg., Sir P. Mehta Road, Bombay 1.

Bock, F., & Co.—Shale Building, Bank Street, Fort, Bombay 1.

C. Agrawal & Co., Pvt. Ltd.—43-44, Lakshmi Building, Sir Phirozshah Mehta Road, Bombay 1. Central Dyes Products Pvt. Ltd.—349, Samuel Street, Vadgadi, Bombay 3.

Chavannes & Co., Ltd.—Mercantile Chambers, Graham Road, Ballard Estate, Bombay 1.

Chem Colour Co.—15, Shree Ram Market, Bombay 3.

Chemico Intermediates Pvt. Ltd.—303, Kharek Bazar, Bombay 9.

Chemiequip Pvt. Ltd.—306, Green House, Green Street, Fort, Bombay 1.

Chemols Supply Co.—Khorshed Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Phone: 376370. Grams: "CHEMDYES".



CHEMI-COLOUR INDUSTRIES (PRIMATE) LTD.



DIRECT IMPORTERS,
PROCESSORS & DEALERS

IN

DYES & CHEMICALS
and
TEXTILE AUXILIARIES

\*

Regd. Head Office:

Block No. I/D, Top Floor, Plot No. 81, Dr. Annie Besant Road, Bombay 18.

Branches: Amritsar, Indore & Sholapur.

# Stockists & Agents:

Delhi, Calcutta, Surat, Ahmedabad, Lachhmangarh, Adoni, Hindupur, Madras, Salem, Ludhiana, Proddatur, Shahapur (Belgaum), Erode, Guledgudd, Bangalore and Nepal (Kathmandu).

Chemical & Allied Products.—Near Basant Pictures, Kolwada Borha Road, Chembur, Bombay 74,

CIBA of India Ltd.—Royal Insurance Bldg., 14, Jamshedji Tata Road, Bombay 20.

Colour-Chem Ltd.—Fort House, 221, Dadabhoy Naoroji Road, Fort, Bombay 1.

Dadajee Dhackjee & Co. Private Ltd.—Samuel Street, Vadgadi, Bombay 3.

Durga Laboratories.—71, Bhandari Street, Vadgadi, Bombay 3.

Dye-Chem Manufacturing Co. Pvt. Ltd.—Navsari Chambers, Outram Road, Fort, Bombay 1.

Dye-Sento Products.—No. 2, Union Co-op. Insce. Bldg., Sir P. M. Road, Fort, Bombay 1.

Dyetex Corporation.—340/42, Samuel Street, Vadgadi, Bombay 3.

Fine Dyestuffs & Chemicals (India) Ltd.—61, Apollo Street, Fort, Bombay 1.

Firoz Trading Co., Ltd.—Kamer Building, Cawasji Patel Street, Fort, Bombay 1.

Fresh Dyes & Chemicals (India).—109D, Sion Industrial Estate, Bombay 22.

Gandhi & Sons Ltd.—Gandhi Building, Samuel Street, Vadgadi, Bombay 3.

Golden Dyes Corporation (India) Pvt. Ltd.—Bela Court, No. 2, Colaba, Bombay 5.

# For Quality Products

# I. Harshion Reactive Dyes

Wide range of colours (40 shades), both Cold (C) and Hot brand (H) for brilliant shades in dyeing and printing of Cellulosic Fabrics.



# 2. Optical Whitening Agents

for dazzling white cotton and rayon

Contact Manufacturers

# HARSHAD DYE-CHEM INDUSTRIES

56/58, Garibdas Street, Vadgadi, Bombay-3.

Phone: 324662.

Harshad Dye-Chem Industries.—56/58, Garibdas Street, Vadgadi, Bombay 3.

Hooseinbhoy A. Lalljee Sons & Co.—Navsari Bldg., Dadabhoy Naoroji Road, Bombay 1.

Idachem Industries Pvt. Ltd.—National Insce. Bldg., 204, Dr. D. N. Road, Fort, Bombay 1.

India Chemie-Dye Industries.—Bharatiya Nivas, B. Vashi Road, Bombay 56.

Indian Chem-Colour Industries.—318, Samuel Street, Vadgadi, Bombay 3.

Indian Dyestuff Industries Ltd.—Mafatlal House, Backbay Reclamation, Bombay 20.

International Research Laboratories.—349, Samuel Street, Vadgadi, Bombay 3.

Indokem Pvt. Ltd.—221, Dadabhoy Naoroji Road, Fort, Bombay.

Industrial Dyes & Chemicals Ltd.—Sunder Chawl, M. J. Market, Bombay 2.

Industrial Minerals and Chemicals Co.—125, Narayan Dhuru Street, Bombay 3.

Jaikishindas Mohandas.—19, Siriram Market, Old Bardan Gully, Vadgadi, Bombay 3. Jasani Colour Mfg. Co.—273, Ghorapdeo Road, Bombay 10.
Jasani Dye-Chem Industries.—264, Samuel Street, Vadgadi, Bombay 3.

J. M. Mehta.—320, Samuel Street, Vadgadi, Bombay 3.

Javerchand Khimji Rangwala.—288, Samuel Street, Bombay 3.

Kaloomal Shorimal Sachdev Rangwala Pvt. Ltd.—P.O. Mandvi, Vadgadi, Bombay 3.

Khatau Valabhdas & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Kerr, F. S. & Co., Ltd.—Maneckji Wadia Bldg., M. G. Road, Bombay 1.

Kuldip Colour Industries.—340/42, Samuel Street, Vadgadi, Bombay 3.

Madhavdas Manilal & Co.—10, Sussex Road, Bombay 27.

Manubhai Shah & Co.—297, Samuel Street, Vadgadi,
Bombay 3.

Mehta Dye-Chem Industries.—319, Samuel Street, 14, Haresh Chambers, Bombay 3.

Mistry & Co.—3, Gilder Lane, off Lamington Road, Bombay 8.

M. H. Mehta & Sons, Ltd.—Fort Chambers, Hamam Street, Fort, Bombay 1.

M. P. Dye-Chem Industries.—27, D'Souza Street, Vadgadi, Bombay 3.

Narayandas Jagjiwan & Co.—60, Garibdas Street, Vadgadi, Bombay 3.

National Dyes.—Bombay Mutual Bldg., 19/21, Hamam Street, Bombay 1.

N. P. Patravali & Co.—Fort Chambers, Hamam Street, Fort, Bombay 1.

Paramount Dyes & Chemicals Pvt. Ltd.—Elphinstone Building, Veer Nariman Road, Fort, Bombay 1.

P. D. Vora.—314, Samuel Street, Vadgadi, Bombay 3.

Pioneer Trading Co.—210, Samuel Street, Bombay 3.

Pravin Colour Co.—340-42, Samuel Street, Vadgadi, Bombay 3.

Pravin Brothers & Co.—Commerce House, 140, N. Master Road, Bombay-1.

Ramanco Pvt. Ltd.—349, Samuel Street, Vadgadi, Bombay 3.

Ramdas & Co.—327, Samuel Street, Vadgadi, Bombay 3.

Rangoonwalla, H. N.—Rangoonwalla Building, 91, Mahomedally Road, Bombay 3.

Sandoz India Ltd.— Dr. Annie Besant Road, Bombay 18.

Sardesai & Company.—14, Murzban Road, Fort, Bombay 1.

Sawkar Chemical Industries.—9, New Agra Road, Kurla, Bombay 70.

Shankar Dyes & Chemicals Industries.—Sunderbaug Estate, Tulsiwara Bridge, Jogeshwari, Bombay 60.

Shoorji Vallabhdass Colour Co.—280, Samuel Street, Vadgadi, Bombay 3.

Shree Krishna Dyes Corporation.—345/47, Samuel Street, Bombay 3.

Sky Bros. Pvt. Ltd.—81, Annie Besant Road, Bombay 18.

Sterling Dyes Pvt. Ltd.—296, Samuel Street, Vadgadi, Bombay 3.

Super Dyes & Chemical Co.—281, Samuel Street, Vadgadi, Bombay 3.

Tejaji Farasram Kharawala.—285, Samuel Street, Vadgadi, Bombay 9.

Texdyes Corporation.—Manekji Wadia Building, 127, Mahatma Gandhi Road, Fort, Bombay.

Textile Aniline & Chemical Co. Pvt. Ltd.—Standard Building, 346, Dadabhai Naoroji Road, Bombay I.

Textile Dye-Chem Corporation.—Vincent Court, 3rd Floor, Vincent Road, Bombay 14.

Uma Chemical Industries.—288, Samuel Street, Bombay 3.
Vora Trading Co.—357-A, Samuel Street, Vakil Bldg.,
Vadgadi, Bombay 3.

Western India Dyestuffs Corpn.—61/5, Ramchandra Lane, Marve Road, Malad, Bombay-64.

Winsol Chemical Industries.—Kurla-Andheri Road, Bombay 70.

Zenith Colour Trading Co.-316, Vadgadi, Bombay 3.

# EARTHMOVING & MATERIAL HANDLING EQUIPMENT

Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Echjay Industries Pvt. Ltd.—Kanjur Village Road, Bhandup, Bombay 78.

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Bombay 1

Greaves Cotton & Co. Ltd.—Forbes Street, Bombay 1.

Gujarat Trading Syndicate.—India House (Opp. G.P.O.), Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, Bombay 56.

Killick, Nixon & Co. Ltd.-31, Murzban Road, Bombay 1.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

# ELECTRIC MOTORS, GENERATORS AND SETS

Alpha Dynamic Products Pvt. Ltd.—30, Calicut Street, Ballard Estate, Bombay 1.

Asmopal Engineering Co.—Sunder Mahal, 141, Marine Drive, Bombay 20.

Batliboi & Company Pvt. Ltd.—Forbes Street, Fort, Bombay 1 (BR).

Bharat Electric & Engineering Corporation.—Free Press Building, 21, Dalal Street, Fort, Bombay 1.

British Engineering Co.—105, Apollo Street, Fort, Bombay 1.

Crescent Agencies Pvt. Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort, Bombay.

Eastern Trading & Engineering Co.—Alice Building, 4th Floor, 339, D. N. Road, Fort, Bombay 1.

Elmot Engg. Co. P. Ltd.—Udyog Nagar, Swami Vivekananda Road, Bombay 62.

Economic Electric Co., Ltd.—Jail Road (East), Dongri, Bombay 9.

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort, Bombay I.

Hindustan Brown Boveri Ltd.—Brown Boveri House, Dr. A. B. Road, Bombay 25.

Hindustan Engineering Co.—(Machinery Dept.), Aban House, 25-31, Ropewalk Street, Fort, Bombay 1.

Jyoti Calor-Emag Limited.—Advent, G. Bhonsle Marg, Bombay 20.

Machines & Motors.—1st Floor, 123, Mahatma Gandhi Road, Bombay 1. Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Fort, Bombay 1.

Marshall Sons & Co. (India) Ltd.—79, Dr. A. B. Road, Bombay 18.

Modi & Modi Co.—16, Hamam Street, Fort, Bombay 1.

Motor & Machinery Manufacturers Ltd.—336a, Kalbadevi Road, Bombay 2.

Narhari Engineering Works.—480, Kalbadevi Road, Bombay 2.

National Electrical Industries, Ltd.—Lalbaug Industrial Estate, Lalbaug, Bombay 12.

Power Machines Corporation.—31, Forbes Street, Fort, Bombay 1.

Protos Engineering Co. Ltd.—173, Jamshedji Tata Road, Bombay 20.

Radiant Electric & Machinery Co.—Sir Vithaldas Chambers, Bruce Street, Bombay 1.

Royal Machinery & Trading Co.—Tulip, 16th Road, Bombay 50.

Saga-Windel Engineers Pvt. Ltd.—10, Cawasji Patel St., Bombay-1.

Sigil (India) Services Pvt. Ltd.—Ismail Building, 381, Dr. Dadabhoy Naoroji Road, P.O. Box 952, Bombay 1.

Star Delta Electricals.—135-A, Maulana Azad Compound, Bombay 8.

Talwarker Brothers Pvt. Ltd., W. R.—Lentin Chambers, Dalal Street, Fort, Bombay 1.

United India Engineering Co.—6, Commerce House, N. Master Road, Fort, Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

ELECTRICAL ENGINEERS, MFRS. & DEALERS IN ELECTRIC GOODS

# ANSONS

# THREE-PHASE SQUIRREL CAGE INDUCTION

# **ELECTRIC MOTORS**

- Loom Motors, High Torque, Totally Enclosed, Natural Cooled.
- General Purpose Motors, Totally Enclosed, Fan Cooled Type, I to 3 H.P. in all Rpms.
- Pneumafil System Motors for Textile Industry and other Special Motors to Customers Specification.

And

GRINO MIX—ELECTRICAL MIXER-CUM-GRINDER

Manufactured & Marketed by :

# ANSONS ELECTRO MECHANICAL WORKS

248-252, Abdul Rehman Street, Bombay 3 BR.

Factory:

Agadi Industrial Estate, Khot Road, Subhashnagar, Jogeshwari (East), Bombay 60 NB.

# **CENTRIFUGAL SWITCHES**

FOR

**ELECTRIC MOTORS, GENERATORS** 

For 'AG' Brand

CENTRIFUGAL SWITCHES with Nylon & Bakelite Clutch & Silver Contacts — Governor's Wings of Nickel plated Brass — for Single-phase Motors of & to 1 & 2 HP & Synchronous Speeds of 750/1000/1500/3000 R.P.M. Tested for over 22 Lakhs operations.

Now manufactured in India

# TRANSACTO

Devkaran Mansion, Block No. 6, 1st Floor, Vithaldas Road, Bombay-2.

Phone: 359710.

# **NEI GROUP OF INDUSTRIES**

Regd. Office: Industrial Estate, Lalbaug, Bombay 12; Phone: 442591 (4 Lines). Grams: "NATELIN". Telex: 011-2678.

# THE NATIONAL ELECTRICAL INDUSTRIES

Works: Industrial Estate, Lalbaug, Bombay 12; Small Transformer Unit at Nagar Road, Poona 14; Makers of Power & Distribution Transformers, Electric Motors, Motorised Grinders, Monobloc Pumps & Current Transformers.

# FOUNDERS & FOUNDRY EQUIPMENTS THE CRESCENT IRON & STEEL CORP., LTD.

Works: Goregaon East, Bombay-63; Phone: 692304; Makers of Grey Iron Castings & Metal Cutting Band-Saw Machines.

CABLES & WIRES MFRS.

# WANDLESIDE NATIONAL CONDUCTORS LTD.

Works: Nagar Road, Poona 14; Phone: 25-211-2. Grams: "WANDLESIDE". Telex: 014-241. Makers of Paper Covered, Enamelled and Fibre Glass Covered, Varnish Bonded Wires and Strips from Electrolytic Copper/Aluminium for electrical applications.



(Estd. 1947)

Manufacturers of:- "ELLORA" brand Electrical Goods & Accessories

Branches: D-I, Bhagirath Palace, Chandni Chowk, New Delhi. Tele: 276366.

36, Ezra Street, Calcutta. Tele: 347032.

## **ELECTRICAL GOODS AND APPLIANCES**

Phones: 312051, 312048

Grams: "ELLORART"

A. Harilal & Co. Pvt. Ltd.—167-169, Lohar Chawl, Bombay 2 BR.

Ahmed A. Fazalbhoy.—Liberty Building, Marine Lines, Bombay 20.

Alliance Electric Mart.—67, Lohar Chawl, Bombay 2. Amarja Electric Corporation.—391, B. V. G. Market, Grant Road, Bombay 7.

Aransa Engineering Company.—119, Hind Rajasthan Building, Dadasaheb Phalke Road, Bombay 14 DD.

Arvinda Trading Co. Pvt. Ltd.—105, Apollo Street, Fort, Bombay 1.

Ashok Electric Co.—469, Duncan Road, 1st Floor, Bombay 4.

Atlas Electric Co.—243, Bazar Gate Street, Fort, Bombay 1.

Auto & Electric Stores.—Bhangwadi, Kalbadevi Road, Bombay 2.

Bajaj Electricals Ltd.—45-47, Veer Nariman Road, Bombay 1.

B. B. Electric & Auto Stores.—Peerbhai Building, Pathakwadi, Bombay 2.

Bharat Electric & Engineering Works.—3, Nariman Road, Vile Parle (East), Bombay-57.

Bharat Electric Supply Traders.—542, Sandhurst Bridge, Chowpatty, Bombay 7.

Bijlee Products (India) Ltd.—36, Lamington Road, Byculla, Bombay 8.

B. J. Electricals.—82, Medows Street, Fort, Bombay 1.
 Bombay Electric Corporation.—306-E, Mahomed Bldg.,
 Vincent Road, Dadar, Bombay 14.

## ELECTRICAL ENGINEERS & VACUUM CLEANING SPECIALISTS

## LENZOHM

For Transformers Rewinding & Voltage Conversion.

Our Speciality upto 20 MVA. & 132 kV.

We do Vacuum Drying \* Vacuum Impregnation \* Ageing.

100 cycle Over-potential Induced Voltage Test \* Flash

Test. Work covered by guarantee.

LENZOHM ELECTRICAL DEVELOPMENT CO.,

Dharamchand Industrial Estate,

Deonar Road, Chembur, Bombay 88 AS.

Phones : { Works : 522598. Resi. : 454346 & 452956

Bright Electricals.—Krishna Bhavan, 57, Lohar Chawl, Bombay 2.

Central Electric & Radio Co.—Lal Singh Bldg., 14, Lohar Chawl, Bombay 2.

Chandrodaya Electric Co.—Bhangwadi, Kalbadevi Road, Bombay 2.

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort, Bombay 1.

Cielmac Pvt. Ltd.—257, Frere Road, Bombay 1.

Cinefones.—Opp. Opera House, 3, New Queen's Road, Bombay 4.

Cinesales.—Bhagwan Mansions, Behind Metro Cinema, Bombay 2.

Consolidated Mfg. Pvt. Ltd.—Parekh Industrial Estate, G. B. Road, Kandivlee, Bombay 67.

Continental Electrical Engineering Co.—115, Ismail Karle Road, Opp. Bapu Khote Street, Bombay 3.

Crescent Agencies (Pvt.) Ltd.—Beaumon Chambers, Medows Street, Fort, Bombay 1.

Crown Built Corporation.—21, Suleman Chambers, Battery Street, Fort, Bombay 1.

Deepak Electric Corporation.—156, Lohar Chawl, Bombay 2.

Dinesh Electricals.—E7, Sikka Nagar, V. P. Road, Bombay 4.

Eastern Electric & Radio Corpn.—11, Lohar Chawl,

Bombay 2.

Eastern Trading Co.—Mahakali Building, Pydhonie,
Bombay 3.

Elda Engineers Pvt. Ltd.—29, Veer Nariman Road, Fort, Bombay 1.

Electric & General Trades, Ltd.—Bombay Mutual Annexe, Gunbow Street, Bombay 1.

Electric Corporation of India.—19-21, Hamam Street, Fort, Bombay 1.

Electric Installations Corpn.—604, Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

Electric Light & Power Equipment Co.—164, Sassoon Dock, Colaba, Bombay 5.

Electric Light & Radio Co.—11, Shivaji Nagar, Delisle Road, Bombay 13.

Electronic & Engineering Co.—Meher House, 2nd Floor, 15, Cawasji Patel Street, Fort, Bombay 1.

Engineers' Enterprises Pvt. Ltd.—Godown No. 2, Sachak Nivas, Mangalwadi-Girgaum Junction, Bombay 4 BR.

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort, Bombay 1.

Famous Electricals.—25, Tadwadi, Chira Bazar, Bombay 2. Gandhi Electric Company.—Nagardas Road, Andheri (East), Bombay 58.

Gandhi Electrical Engineering Co.—32, Sleater Road, Grant Road, Bombay 7.

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Bombay 1.

General Electric Co. (India) Ltd.—Magnet House, Dougall Road, Ballard Estate, Bombay 1.

General Radio & Appliances Ltd.—Unity House, M. Parmanand Marg, Bombay 4.

Hemkiran Electricals Pvt. Ltd.—Hind Rajasthan Shopping Centre No. 135, D. Phalke Road, Bombay 14.

Huge Engineering Co.—Imperial Chambers, Wilson Road, Ballard Estate, Bombay 1.

India Electro Traders.—157, Princess Street, Bombay 2.
Indian Electric Stores.—Maskati Mahal, Lohar Chawl, Bombay 2.

Indian Engineering Co.—132, A. Besant Road, Bombay 18.
 Industrial Controls & Appliances Pvt. Ltd.—Chakala Road, Andheri (East), Bombay 69.

Industrial Machinery & Tools Corporation.—A, Gokhale Street, Bombay 4.

Jagmag Electric Company.—4th Lane, Khetwadi, M. B. Kapol Nivas, Bombay 4.

Jayendra Electric Co.—78, Swadeshi Mills, Kurla, Bombay 70.

J. Mody & Co.-97, Nagdevi Street, Bombay 3.

# KESBO (PRIVATE) LIMITED

(Formerly known as the Karachi Electric Stores (Bombay) Ltd.).

Electrical Engineers and Importers in Electrical goods.

Sole Agents: Burgess (English), Vibro Tools, Vibro

Sprayers, 'MK' (English) Electric Wiring Accessories;

'PYE' (English) Micro Switches.

Manufacturers of:

'KPL' (Indian) Micro Switches and many types and sizes of limit Switches.

Office :

Bombay Mutual Terrace, 1st Floor, 534, Sandhurst Bridge,

Bombay 7. Phone: 351643.

Show-room: Arthur Bunder Road, Colaba, Bombay 5.

Phone: 213909. Grams: "RECTIFIERS".

Killick Nixon & Co. Pvt. Ltd.—Home Street, Bombay 1.
Krishna Electric & Trading Co.—307 Tardeo Road, Nana Chowk, Bombay 7.

Lights & Crafts.—10, Lohar Chawl, Bombay 2.

Maharashtra Electrical Corpn.—367, Tulsi Pipe Road, Near Holy Cross Church, Bombay 13.

Markel & Co.—Makharia House, 327, Sandhurst Road, Bombay 4.

M. C. Mody & Bros.—Maskati Mahal, 125-A, Lohar Chawl, Bombay 2.

Metro Electric Co.—296, Kalbadevi Road, Bombay 2. Metro Electric & Mechanical Engineering Works.—Hormuz

Metro Electric & Mechanical Engineering Works.—Hormuz Building, Sleater Road, Bombay 7. Modern Electrical Trade Syndicate.—Wassiamul Building,

182, Masjid Bunder Road, Bombay 3.

Modern Radio & Electric House — 381 D N Road

Modern Radio & Electric House.—381, D. N. Road, Fort, Bombay 1.

Mohan Electric Corporation.—174, Lohar Chawl, Bombay 2. Narendra Electric Stores.—158, Lohar Chawl, Bombay 2. National Supply & Distributing Agency.—250, Kalbadevi Road, Bombay 2.

New India Trading Corporation.—Spinner Building, Tamarind Street, Bombay 1.

Oriental Electric & Mechanical Engineering Works,—174-76, Mount Road, Mazagaon, Bombay, 10.

Oriental Trading Corpn.—Makharia House, 327, Sandhurst Road, Bombay 4.

Patel Electric Co., Ltd.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.

Pavri, J. K.—10, Karim Chambers, Hamam Street, Fort, Bombay 1.

Pestonji & Co.—570, Sultan Manzil, Chira Bazar, Bombay 2.

Photophone Equipments, Ltd.—Sandhurst Bridge, Bombay 7.

Pioneer Electricals (India) Ltd.—16, Hamam Street, Fort, Bombay 1.

Power Equipment & Construction Co.—Alice Building, 2nd Floor, 339 Dr. Dadabhoy Naoroji Road, Bombay I.

Practical Electric Co.—325, Kalbadevi Road, Bombay 2.

Radiant Electric Co.—Paramanand Building, French Bridge, Bombay 7.

Raj Electric Corpn.—479, Maulana Azad Road, Bombay 4. Rashmi Electricals.—12, Nani Bunglow Annexe, Chapel Lane, Santa Cruz (West), Bombay 54.

R. D. Electric Company.—41, Khorshed Building, Sir P. M. Road, Bombay 1.

Rhythm House Ltd.—40, Rampart Row, Bombay 1.

Royal Electric Co.—Muljee Jetha Building, 139, Princess Street, Bombay 2.

R. S. Traders.—16, People's Building, Sir Phirozshah Mehta Road, Bombay 1.

Shah Commercial Corporation.—58, Mangaldas Road, Lohar Chawl, Bombay 2.

Shah Trading Agencies.—19, Hamam Street, Fort, Bombay 1.

Shah Trading Co.—Lawyers' Chambers, Picket Road, Lohar Chawl, Bombay 2.

Siemens India Ltd.—134A, Dr. Annie Besant Road, Worli, Bombay 18.

Standard Elec. & Engg. Co.—'Sardargriha,' 1st Floor, Lohar Chawl, Bombay 2.

Sun Electric Co.—Koita House, M. Azad Road, Jacob Circle, Bombay 11.

Swastic Electric Trade Corpn.—Dinshaw Bldg., 3rd Floor, Fish Market Lane, Dhobi Talao, Bombay 2.

Fish Market Lane, Dhobi Talao, Bombay 2.

Tanna Electric Co.—4/6, Telwadi, Vithalwadi, Bombay 2.

Thanawalla & Co.—192, Dr. D. N. Road, Fort, Bombay 1.

Trinity Electric Syndicate.—154, S. Gandhi Marg, Bombay 2.

U. K. Agencies.—2/16, Western India House, Sir P. M. Road, Bombay 1.

Unique Trading Corpn.—Mustafa Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

United Electronic Corpn.—Central Bank Bldg., Bruce Street, Fort, Bombay 1.

Western India Electric Co. Pvt. Ltd.—Navsari Chambers, 4th Floor, Outram Road, Fort, Bombay 1.

Zenith Industries Pvt. Ltd.—108-G, Lokmanya Nagar, Lady Hardinge Road, Mahim, Bombay 16.

ELECTRONICS

## ALLIED ELECTRONICS CORPORATION

Group Concern of D. M. Harishanker Narbheram & Co.

## OFFERS CONNECTORS

Printed Circuit Connectors Co-Axial Connectors Minihex Connectors Strip Connectors Multipin Rectangular Connectors Miniature Rack Panel Connectors Round Shell Multipin Connectors

HIGHLY QUALIFIED TECHNICIANS AND UP-TO-DATE TOOL ROOM ARE ALWAYS AT YOUR SERVICE FOR ANY DEVELOPMENT

For Further Particulars Contact:

## ALLIED ELECTRONICS CORPORATION

94, Kansara Chawl, Kalbadevi Road, BOMBAY 2.

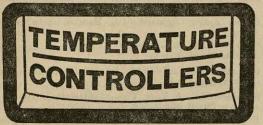
Phones:

Office: . 335294, 334079

Factory: 536159.

Grams:
"BAKULBAUGH"
BOMBAY.

## FOR REPAIR & MAINTENANCE OF



- BARBER-COLMAN
- . ETHER
- HONEYWELL
- WEST-GARDSMAN
- WITHOF-(GERMAN)
- ANY OTHER FOREIGN OR INDIAN MAKE

## · CONTACT

## **GOYAL ELECTRONIC INDUSTRIES**

319, PRASAD CHAMBERS. SWADESHI MILL COMPOUND. BEHIND ROXY CINEMA, BOMBAY-4 PHONE: 358559

## PIONEER IN CONNECTORS



SERIES RF. UHF. N. BNC CONNECTORS.

REDUCING ADAPTERS.

POWER CONNECTORS.

PLESSY CONNECTORS

FOR HIGH VOLTAGE.

PRINTED CIRCUIT CONNECTORS.

FUSE HOLDERS.

JEWEL LAMPS HOLDERS RECTANGULAR,

Pen Stylus Needles and Needle Electrode.

## A. LUNAR ENGINEERING

MOROBA NIVAS, 210 A-B, GIRGAON, BOMBAY-4.

## ENGINEERS

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3. Acme Manufacturing Co., Ltd.—Construction House,

Ballard Estate, Bombay 1. Advani-Oerlikon Pvt. Ltd.—Radia House, 4th Floor, 6, Rampart Row, Fort, Bombay 1. Aeron Steel Rolling Mills .- 24, Baroda Street, Iron Market.

Afco Ltd.-9, Wallace Street, Fort, Bombay 1.

Agra Engineering Co.-40, Bank Street, Fort, Bombay 1. Air Conditioning Corporation Ltd.—Elphinstone Building.

Nariman Road, Bombay 1.

Air Control & Chemical Engineering Co. Ltd.—133, Dr. Annie Besant Road, Worli, Bombay 25 DD.

Alcock, Ashdown & Co., Ltd.—16, Bank Street, Bombay 1. Alfred Herbert (India) Ltd.—Kaiser-i-Hind Building, Ballard Estate, Bombay 1.

Anglo-American Marine Co. Ltd.—Boat Hard Road, Coal

Bunder, Mazagon, Bombay 10.

Apollo Engineering Co.-84, Apollo Street, Bombay 1. A. P. V. Equipment Co. Ltd.—Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay 1.

Art Metal Works.-35-C, Jerajbhoy Street, Foras Road, Bombay 8.

Associated Machine & Tools Co.—130, Nagindas Master Road, Bombay 1.

Atlas Copco (India) Pvt. Ltd.—Mahatma Gandhi Memorial Bldg., Netaji Subhas Road, Bombay 20.

Audeo India Ltd.- L. & T. House, Dougall Road, Ballard Estate, Bombay 1 BR.

Autogenous Welding & Repair Co. Pvt. Ltd.-63, Ferguson Road, Bombay 13.

Babcock & Wilcox, of India Ltd.-16, Karve Road Estate, Bombay 20.

Balmer Lawrie & Co., Ltd.-5, Graham Road, Ballard Estate, Bombay 1.

Batliboi & Co.—Bharat House, Apollo Street, Bombay 1. Bharat Electric & Engineering Corpn.—21, Dalal Street, Bombay 1.

Bharat Industries.—Ghodbunder Road, Goregaon (West), Bombay 62 N.B.

Billington W., & Co., Ltd.—Imperial Chambers, Ballard Estate, Bombay 1.

Blue Star Industries Pvt. Ltd.—Kasturi Buildings, Jamshedji Tata Road, Bombay 20.

Bombay Metal & Alloys Mfg. Co. Pvt. Ltd.—Off Magazine Street, Mazagon, Bombay 10.

B. R. Steel Products Pvt. Ltd.—29-30, Vaswani Mansions, Dinshaw Vachha Road, Bombay 20.

Bradma of India Ltd.—Laxmi Building, Sir P. Mehta Road, Fort, Bombay 1.

Brady & Morris Engineering Co. Ltd.—Brady House, 12/14, Vir Nariman Road, Bombay 1.

British Engineering Co.-105, Apollo Street, Bombay 1.

British Steel Pillin Co. (India) Ltd.—Cosmopolis, Nepean Sea Road, Bombay 6.

Buckau Wolf New India Engineering Works Ltd.-72, Medows Street, Bombay 1.

Business Combine Ltd .- 'Nirmal', Nariman Point, Bombay 20 BR.

Candy Filters (India), Ltd.—Forbes Building, Home Street, Bombay 1.

Cementation Company Ltd.—Steelcrete House, D. Vachha Road, Bombay 20.

Chase Bright Steel Ltd.—Meher Chambers, Nicol Road, Ballard Estate, Bombay 1.

Choksi, H. & Co. Pvt. Ltd.—106, Nagindas Master Road, Bombay 1.

Christensen-Longyear (India) Ltd.—L. & T. House,
 Dougall Road, Ballard Estate, P.O. Box 278, Bombay 1.
 Consolidated Pneumatic Tool Co. (India) Ltd.—301/302,

Agra Road, Mulund, Bombay 80.

Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay 1.

Crompton Greaves Ltd.—1 Forbes Street, Fort, Bombay 1. Curtis, & Co., Ltd., J.—77, Keluskar Road, Bombay-28.

D. & H. Secheron Electrodes Pvt. Ltd.—Mistry Court, 208, Dinshaw Vachha Road, Churchgate, Bombay 20.

Dancal (I) Pvt. Ltd.—Rama Foundry Compound, Vihar Lake Road, Saki Naka, Bombay 72.

Danfoss (India) Ltd.—Kurla-Andheri Road, Behind Vijay Silk Prints, Saki Naka, Bombay 72 AS.

David Brown Greaves Ltd.—1, Forbes Street, Bombay 1.
 Dinshaw Master & Co., Ltd.—247, Nagdevi Street, Bombay 3.

Dodsal Pvt. Ltd.—Mafatlal House, Backbay Reclamation, Bombay 20.

Dorr-Oliver (India) Ltd.—"The International," 16, Queen's Road, Estate, Bombay 20.

Drewet, Chowna & Co.—123, Nagindas Master Road, Bombay 1.

Duncan, Stratton & Co., Ltd.—29, Bank Street, Bombay 1.
Economic Electric Co., Ltd.—Jail Road (East), Bombay 9.
Economy Traders.—Dholandas Mansion, Cumballa Hill, Gowalia Tank Road, Bombay 26.

Edgar Handley and Company Ltd.—135, Nagindas Master Road, Bombay 1.

Electric Cable & Machinery Co.—45, Forbes Street, Fort, Bombay 1.

Emco Elektra Pvt. Ltd.—4, Medows Street, Fort, Bombay 1.

Engineer, Eruch D.—85, Tardeo Road, Bombay 34.

Essential Engineering Co.—11, Horniman Circle, Bombay 1.

Eutectic Welding Alloys of India Ltd.—L & T House, Dougall Road, Ballard Estate, Bombay 1 BR.

Ex-Cell-O India Ltd.—78-B, Dr. Annie Besant Road, Worli, Bombay 18.

Ferrodie Pvt. Ltd.—C-43, Wagle Ind. Estate, Thana.

Fleming, Shaw & Co., Ltd.—235, D. N. Road, Bombay 1.
Foundation Corporation of India.—Meher House, 15,
Cawasji Patel Street, Fort, Bombay 1.

Fowler, John (India), Ltd.—Marshall's Building, Ballard Road, Bombay 1.

Francis Klein & Co. (Bombay) Ltd.—Shale Building, Bank Street, Bombay 1.

Gabriel India Ltd.—S 304, Agra Road, Mulund, Bombay 80.

Gagrat & Co.—Ali Chambers, N. Master Road, Bombay 1.
Gammon India Itd.—Gammon House, Veer Sawarkar Marg, Prabhadevi, Bombay 25 (DD).

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Bombay 1.

Garlick & Co. Pvt. Ltd.—Haines Road, Jacob Circle, Bombay 11.

Greaves, Cotton & Co., Ltd.—1, Forbes Street, Bombay 1. Guest, Keen, Williams, Ltd.—Wakefield House, Ballard Estate, Bombay 1.

Hardcastle Waud & Co., Ltd.—Alice Building, D. N. Road, Bombay 1.

0

 Heatly & Gresham, Ltd.—9, Forbes Street, Bombay 1.
 Hind Constructions & Engg. Co. Ltd.—Queen's Mansion, Bastion Road, Bombay 1.

Hindustan Brown Boveri Ltd.—Brown Boveri House, 264/265, Dr. Annie Besant Road, Bombay 25 DD.

Hindustan Construction Co., Ltd.—Construction House, Ballard Estate, Bombay 1.

Hindustan Klockner Switchgear Ltd.—Prospect Chambers, 317/21, Dr. D. Naoroji Road, Bombay I.

Hughes & Davies.—101, Mahatma Gandhi Road, Bombay 1.

Humphreys & Glasgow (Overseas) Ltd.—"Gammon House", Cadell Road, Prabhadevi, Bombay 25 DD. IBM World Trade Corpn.—Vulcan Insurance Bldg.,

Nariman Road, Bombay-20.

Imanes Pvt. Ltd.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56.

Indabrator Ltd.—NSE Estate, Goregaon East, Bombay 63 NB.

Indian Furnace Co. Pvt. Ltd.—Lotus Cinema Bldg., 12-A, Dr. Annie Besant Road, Worli, Bombay 18.

Indian Hume Pipe Co., Ltd.—Construction House, Ballard Estate, Bombay 1.

Indian Oxygen Ltd.—Bombay-Agra Road, Rajawadi P. O., Ghatkopar, Bombay 77-AS.

Indian Standard Metal Co. Ltd.—Chinchpokli Cross Lane, Bombay 27.

Industrial & Agricultural Engineering Co. (Bombay) Pvt. Ltd.—43, Forbes Street, Fort, Bombay 1.

Industrial Electrical Engineering Co.—10, Hamam Street, Bombay 1.

Ingersoll-Rand (India) Pvt. Ltd.—Khanna Construction House, 44 Maulana Abdul Gaffar Road, Bombay 18.

## INSPECTION, TESTING AND CONSULTING ENGINEERS

#### Inspection:

Preshipment Inspection — Representatives of Foreign Governments for inspection of exports of Engineering goods.

#### Testing:

Testing of all engineering materials and equipment for physical properties, chemical analysis, metallurgical investigations, macrographic & micrographic studies, safety regulations.

#### Consulting Services:

Appraisal of industrial projects, statistical quality control, arbitrators and industrial consultants.

#### Property valuation:

Recognized by the Finance Department, Government of India as Valuers, Surveyors and Architects under Estate Duty Act — 1953.

## J. D. DAROGA, J. P.

M.Sc. (Eng.) (Lond.); B.E.; M.I.E.; F. Inst. C.E.; F.I. Mech. E.; F.R.S.H.; M.I.P.H.E.; D.I.E. (Lond.); F.I. Prod. E.; M.B.I.M., Managing Director.

## ITALAB ENGINEERING PVT. LTD.

Aban House, 25, Rope Walk Lane, Bombay-1. Phone: 258019. ISGEC John Thompson Ltd.—Great Social Building, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

Jayems Engineering Co.—130, Apollo Street, Bombay 1.
JK Engineers' Files.—JK Building, Dougall Road, Ballard Estate, Bombay 1.

John Thomson (India) Pvt. Ltd.—Great Social Building, Sir Phirozeshah Mehta Road, Bombay 1.

Jost's Engineering Co., Ltd.—Great Social Building, Sir P. M. Road, Bombay 1.

Kamani Engineering Corporation Ltd.—Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1 BR. Khandelwal Udyog Ltd.—166, Dr. Dadabhoy Naoroji

Road, Bombay 1.

Keming Tools Co. Pvt. Ltd.—165/1 Kolshet Road, Thana.
Killick, Nixon & Co. Ltd.—Killick House, Home Street,
Fort, Bombay 1.

K. T. Steel Industries Pvt. Ltd.—K. T. Building, Broach Street, Dana Bunder, Bombay 9.

Kumar Engineering Works.—65, Mahatma Gandhi Road, Bombay 1.

Larsen & Toubro Ltd.—L. and T. House, Dougall Road, Ballard Estate, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Bombay 1.

Mahindra Owen Ltd.—Gateway Building, Apollo Bunder, Bombay 1.

Mahindra Ugine Steel Co. Ltd.—14, Altamount Road, Bombay 26 (WB).

Malet Welding Works.-16, Bank Street, Bombay 1.

Mapara Engineering Co.—381, Dadabhoy Naoroji Road, Bombay I.

Marshall Sons & Co. (India), Ltd.—79, Dr. Annie Besant Road, Bombay 18.

Mather & Platt. Ltd.—Hamilton House, Graham Road, Bombay 1.

Mazagon Dock Ltd.—Mazagon, Bombay 10.

McKenzies Ltd.—Donde Marg, Bombay 15.

Metal Box Co. of India Ltd.—249, Worli Road, Worli, Bombay 18.

Metals Pvt. Ltd. - 269, Dr. Dadabhoy Naoroji Road, Bombay 1.

Minimax, Ltd. - 29, Fort Street, Bombay 1.

M. J. Parikh.—491/93, Maulana Azad Road, Bombay 4 BR. Modern Mercantile Works.— Meher House, Cawasji Patel Street, Bombay 1.

Modern Textile Engineering Works.—194, Trimbak Parashram Street, Bombay 4.

Mody Trading Co.— 50, Nagdevi Cross Lane, Bombay 3.Motichand & Co.— United India Building, Sir Phirozshah Mehta Road, Bombay 1.

Mukand Iron & Steel Works Ltd.— Bombay Agra Road, Kurla, Bombay 70.

Muncherjee Byramjee & Co.—100, Foras Road, Bombay 8. Nadirshaw & Bros.—Silver Talkies Building, Khetwadi Back Road, Bombay 4.

National Steel Equipment Co.—265A, A. Besant Road, Bombay 25.

Needle Roller Bearing Co. Ltd.—B/16, Road, No. 2, Industrial Area (Wagle Wadi), Thana.

Nestler Boilers Pvt. Ltd.—Love Lane, Byculla, Bombay 7. New Consolidated Construction Co., Ltd.—Rahimtoola House, Homji Street, Bombay 1.

New Standard Engineering Co. Ltd.—NESE Estate, Goregaon East, Bombay 63.

## **ENGINEERS & CONTRACTORS**

# PERFECT MACHINE TOOLS CO. (P) LTD.

Engineers & Contractors

Suppliers of: Machine Tools, Industrial Plants & Woodworking Machinery.



Head Office:

Bell Bldg., Sir P. M. Road, Bombay I. Phones: 252211 & 252212. Grams: "SUKAN".

Telex: 011-3155.

Branches:

'Power Court', 20-A, Camac Street, Calcutta 16.
Phone: 440652. Grams: "SUKAN".

Telex: 021-7792.

44-E, Block, Connaught Place, New Delhi.
Phone: 48688. Grams: "PERMATOOL".
Telex: 031-7114.

123, Mount Road, Madras 6.

Phone: 87237. Grams: "PERMATOOL".

Telex: 041-7252.

Aruna Mansion, J. C. Road, Bangalore 2.

Phone: 72752. Grams: "SUKAN".

Nitin Engineering & Manufacturing Co. Pvt. Ltd.—Commerce House, 21, Ropewalk Street, Bombay 1.

Otis Elevator Co. (India) Ltd.—Gateway Building, Apollo Bunder, Bombay 1.

Pearlitic Iron Castings & Engineering Works.—20, Hamam Street, Fort, Bombay 1.

Philips India Ltd.—Shivasagar Estate, Block 'A', Dr. Annie Besant Road, Worli, Bombay 18 DD.

Pioneer Equipment Co. Pvt. Ltd.—139, Nagindas Master Road, Fort, Bombay 1.

Poonager, Bilimoria & Co.—Cama Building, 24-26, Dalal Street, Fort, Bombay 1.

Premier Construction Co., Ltd.—Construction House, Ballard Estate, Bombay 1.

Protos Engineering Co., Ltd.—173, Jamshedji Tata Road, Bombay 20.

Rallis India Ltd.—Ralli House, 21, Ravelin Street, Fort, Bombay 1.

Ramon & Demm Ltd.—79, Apollo Street, Bombay 1.

Reliance Trading Co.—Vithal Sayana Building, Lohar Chawl, Bombay 2.

R. H. Windsor (India) Ltd.—E-6, Wagle Industrial Estate, Thana.

Richardson & Cruddas Ltd.—Byculla Ironworks, Byculla, Bombay 8.

Ruston & Hornsby (India) Ltd.—1, Forbes Street, Bombay 1.

Schrader-Scovill Duncan Ltd.—Agra Road, Mulund, Bombay 80.

Scindia Workshop Ltd.—"Scindia House", Dougall Road, Ballard Estate, Bombay 1. Sewri Engineering Construction Co. Pvt. Ltd.—Savoy Chambers, Wallace Street, Fort, Bombay 1.

Shah Construction Co. Ltd.—198, Jamshedji Tata Road, Bombay 20.

Shaparia Dock & Steel Co. Pvt. Ltd.—Sewree Fort Road, Sewree, Bombay 15.

Sharp, R., & Sons.—Kaiser-i-Hind Building, Currimbhoy Road, Bombay 1.

Shree Ram Mills Ltd.—(Engineering Division) Ferguson Road, Parel, Bombay 13.

Shukla-Manseta Industries Ltd.—8, Hamam Street, Fort, Bombay 1.

Simpson, D. R., & Co.—33, Gamdevi Road, Bombay 7.

SKF Ball Bearing Co. Pvt. Ltd.—Mustafa Building, 19, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Smidth & Co. (Bombay) Ltd., F. L.—124/D, Karve, Road, Bombay 20.

Steel Containers Ltd.—149, Jackeria Bunder Road, Bombay-15.

Steel Plant Pvt. Ltd.—205, Dr. Annie Besant Road, Worli, Bombay 18.

Stewarts & Lloyds of India Ltd.—Himalaya House, Palton Road, Bombay 1.

Structural Engineering Works Ltd.—Maneckji Wadia Bldg., M. G. Road, Bombay 1.

Summit Engineering Co.—G. P. O. Box No. 1357, Bombay 1.

Surveyor & Co., Ltd.—Prospect Chambers Annexe, D. N. Road, Bombay 1.

Taherbhoy Goolamhusein & Bros.—Dockyard Road, Mazagaon Bombay 10.

TAK Machinery Ltd.—Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay 1.

Tata Consulting Engineers.—Bombay House, Bruce Street, Fort, Bombay 1.

Techno-Industrial Co.-16, Apollo Street, Fort, Bombay 1.

T. Maneklal Manufacturing Co. Ltd.—Motwani Mansion, Dinshaw Vachha Road, Bombay 20.

Teknoworks (India) Agra Road, Bhandup, Bombay 78 NB.

Tractor Engineers Ltd.—L. & T. House, Dougall Road, Ballard Estate, Bombay 1.

Western India Engineering Corpn. Ltd.—Ali Chambers, Tamarind Lane, Bombay 1.

Westerwork Engineers Pvt. Ltd.—Commerce Centre, Tardeo, Bombay 34.

Wyman-Gordon India Ltd.—Off Pokhran Road, Majiwada, Thana

William Jacks & Co. I. Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

#### **EXHAUST FANS**

James Finlay & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Bombay 1.

Radiant Electric & Machinery Co.—Sir Vithaldas Chambers, Bruce Street, Bombay 1.

Ventura Fabrication Pvt. Ltd.—Tulsi Vihar, Worli Naka, Bombay 18.

## **ENGINEERING STORES**

## BHARAT ENGINEERING STORES

Importers & Stockists of:

Engineering, Precision, Small Tools, Machine Tools, Hardware etc.

113, Nagdevi Street, Bombay 3.

Grams: "UNIONTOOLS" Phones: { 323193 Shop 327428 Office 573274 Resi.

## Authorised Stockists of :

"SAP" Hacksaw, Drills, Slitting Saws & Cutting Tools.

"ADDISON" Drills, Reamers & Cutting Tools.

"ELEPHANT" Chain Pulley Blocks & Travelling Trolleys.

"REGAL" Handsaws & Bandsaws.

"STM" Taps, Tool Bits & Coventry Dies.

"S.R.P." Cutting Tools & Coventry Dies.

#### FERTILISERS

Bharat Fertiliser Industries Ltd.—India House, 4th Floor, Fort Street, Bombay 1.

Chembur Bone & Fertiliser Co., Pvt. Ltd.—Darabshaw House, Ballard Road, Bombay 1.

Chemfert Traders.—2, Nanabhai Lane, Bhadran Bhuvan, 2nd Floor, Bombay 1.

Deccan Sales Corporation Ltd.—Moray House, Vivekananda Marg, Bombay 50.

Dewa Fertilisers & Feeds Ltd.—Eucharistic Congress Building, 5, Convent Street, Bombay 1.

Dharamsi Morarji Chemical Co. Ltd.—Prospect Chambers, 317-21, Dr. Dadabhoy Naoroji Road, Bombay 1.
Feeds & Fertilisers.—39-40, Western India House, Sir

Pherozshah Mehta Road, Bombay I.
Pankaj Chemicals & Fertilisers.—211, Samuel Street,

Pankaj Chemicals & Fertilisers.—211, Samuel Street, Vadgadi, Bombay 3.

Plas-Fab Pvt. Ltd.—Advent, 7th floor, 12A, General J. Bhosle Road, Bombay 1.

Potash Fertilizers Ltd.—6, Lotus Court, Jamshedji Tata Road, Bombay 20.

Premji, Haridas & Co.—170, Sant Tukaram Road, Bombay

Rallis India Ltd.—Ralli House, 21, Ravelin Street, Bombay 1.

T. T. Krishnamachari & Co.—Vulcan Insurance Building, Veer Nariman Road, Bombay 1.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Western Chemical Industries.—Goregaon (East), Bombay 63.

## **FILTER MATERIALS**

Dossa Harjee.—257, Yusuf Meharally Road, Bombay 3.

H. J. Leach & Co.—Post Box No. 899, Asian Building, Nicol Road, Ballard Estate, Bombay 1.

John Fowler (India) Ltd.—Marshalls Building, Ballard Road, Bombay 1.

Navgire & Co.—Navgire House, 163, Trimbak Parshram Street, Bombay 4.

New Oriental Silk Mills Pvt. Ltd.—27, Picket Cross Road, Bombay 2.

Plas-Fab Pvt. Ltd.—Advent, 12A, General J. Bhosle Marg, Bombay 1.

Thaker Vallabhdas Shamji.—32, Dubash Market, 369, Sheikh Memon Street, Bombay 2 (BR).

Universal Filtration Co. Pvt. Ltd.—Commerce House, (2nd Floor), N. Master Road, Bombay 1.

## FIRE FIGHTING APPLIANCES

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3. Armstrong Smith Ltd.—Gresham House, Sir P. M. Road, Bombay 1.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Bengal Chemical & Pharmaceutical Works Ltd.—Savarkar Marg, Bombay 25.

Bharat Engineering Works.—50, Nagdevi Street, Bombay 3.

Crescent Trading Co.—48, Bhajipala Street, Bombay 3.
Eastern Stores & Trading Co. Pvt. Ltd.—115, Nagdevi Street, Bombay 3.

## FYRFO PRIVATE LTD.

(Fire Protection Engineers)

Head Office: 'Dhannur', 3rd Floor, Sir P. M. Road,

Fort, Bombay-1.

Telephones: 261793 & 263179.

Works: No. 1, Kurla Industrial Estate, Nari Seva

Sadan Road, Bombay-77.

Phone: 555342.

Grams: "FOGNOZZLE".

**BRANCHES**:

MADRAS: 38/C, Mohan Mansions, Mount

Road, Madras-6.

BANGALORE: Rajkamal Mansion, Rear Entrance,

48/3, J. C. Road, Bangalore-2.

SECUNDERABAD: Karbala Maidan, M. G. Road,

Secunderabad-3.

CALCUTTA: "Commerce House", 2, Ganesh

Chandra Avenue, Calcutta-13.

## Manufacturers & Dealers in :

All types of Fire Extinguishers, Fire Engines, Trailor Pumps, and Fire Fighting Equipments etc.

Escofaly Mohmedaly & Co.—102/4, Sarang Street, Bombay 3.

Goverdhan Das, P. A.—144, Nagdevi Street, Bombay 3. Imanes Pvt. Ltd.—94, S. V. Road, P. O. Box 8002, Bombay 56 AS.

Industrial Commercial Corporation.—Lotus Chambers, Narayan Dhuru Street, Bombay 3.

John Fleming & Co. Pvt. Ltd.—P. B. No. 76, Bombay 1. Kooverji Devshi & Co. Pvt. Ltd.—Arun Chambers, Tardeo Road, Bombay 34.

# MATHER & PLATT LIMITED and MATHER GREAVES LIMITED

Engineers and Contractors.

Manufacturers of :

Fire Protection Equipment, Armoured Fire Doors, Centrifugal Pumps, Flame Proof Electric Motors, Machinery for the preparation of Preserved Food, Packaging Machinery, Tyre Cord Machinery, Textile Bleaching, Dyeing & Printing & Finishing Machines.

Offices at:

Group Head Office: Udyog Bhavan, 29, Wittet Road, Ballard Estate, Bombay I BR. Phone: 260382.

Bombay: Hamilton House, 8, Graham Road, Ballard Estate, Bombay I BR. Phone: 263555.

Calcutta: 7, Hare Street, Calcutta 1. Phone: 235658.

New Delhi: 17/18, Indra Palace, Connaught Circus, New Delhi I. Phone: 47936.

Madras: 43, General Pettar's Road, Madras 2. Phone: 81358.

Telegraphic Address: "SPRINKLER", for all offices.

Merchant Bros.—151, Nagdevi Street, Bombay 3.

Minimax Ltd.—Byculla Servindustries Bldg., 'A' Sussex Road, Bombay 18.

Radiant Electric Machinery Co.—Sir Vithaldas Chambers, Bruce Street, Bombay 1.

Red Comet (India) Pvt. Ltd.—60, Sion West, Bombay 22.

Roberts, McLean & Co. Pvt. Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Bombay.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

Simplex Timber Mart.—64-68, Ibrahim Mohd. Merchant Road, Khadak, Bombay 9.

Standard Equipment Corporation.—G.P.O. Box No. 914, 19, Bank Street, 2nd Floor, Fort, Bombay 1.

T. Ali Mahomed & Co.—144-46, Sarang Street, Bombay 3.

United Engineering Co.—67-69, Mohamedali Poad, Dada Manzil, 2nd Floor, Bombay 3.

William Jacks & Co. India Pvt. Ltd.—Hamilton House, Graham Road, Bombay 1.

# ZENITH FIRE SERVICES

127/129, Mody Street, Fort, Bombay-I.

Grams: "BAZARSEVAK".

Phone: 265416.



PIONEERS, MANUFACTURERS & EXPORTERS OF:

ZENITH BRAND FIRE PROTECTION OF ALL TYPES; TESTED BY NATIONAL TEST HOUSE AND FIRE INSURANCE ASSOCIATION, BOMBAY.

Also manufacturers first time in India. Heavy gas cylinders for all liquifiable and store gases and tested upto 3,360 lbs. (250) atom by National Test House:

Suppliers to D.G.S. & D., Railways, refineries and all major industries all over India.

Now we manufacture automatic Plant for  $\mathrm{CO_a} ext{-}\mathrm{Water}$  or dry chemical without manual operation to extinguish fire quickly.

## FOUNDERS AND FOUNDRY EQUIPMENT

Amar Brass and Iron Works.—6, Sewree Cross Road, Bombay 15.

Art Metal Works.—35-C, Jeraijbhoy Street, Foras Road, Bombay 8.

Greaves Cotton & Co. Ltd.—1, Forbes Street, Bombay 1. Guest, Keen, Williams Ltd.—Wakefield House, Ballard Estate, Bombay 1.

Hardcastle & Waud Mfg. Co. Pvt. Ltd.—Alice Building, 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Industrial Minerals & Chemical Co.—125, Narayan Dhuru Street, Bombay 3.

J. D. Jones & Co. (Bombay) Ltd.—Rustom Building, Veer Nariman Road, Bombay 1.

Jayems Engineering Co.—Great Western Bldg., 1st Floor, 130-132, Apollo Street, Fort, Bombay 1.

Metallica Works Pvt. Ltd.—138/141, Govt. Industrial Estate, Kandivli (West), Bombay 67 (NB).

Nadirshaw & Bros.—"Silver Talkies" Building, Khetwadi Back Road, Bombay 1.

Pioneer Equipment Co. Pvt. Ltd.—139, Nagindas Master Road, P.O. Box No. 1909, Bombay 1.

P. Ratilal & Co.—Moti Mahal, 43, Dhanji Street, Bombay 3.

Shree Karnatak Agencies.—48, Western India House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Testeels Ltd.—Prospect Chambers, Dr. Dadabhoy Naoroji Road, Bombay 1.

William Jacks & Co. India Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

0

## FUEL INJECTION EQUIPMENT

Bharat Electric & Engineering Corporation.—21, Dalal Street, Fort, Bombay.

Everest Engineering Corporation.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1.

Harry's Trading Co.—5, Commerce House, N. Master Road, Bombay 1.

Honesty Trading Corporation.—Beaumon Chambers, Medows Street, Fort, Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, Erla, Bombay 56 (AS).
Jaishri Manufacturing Corporation.—Motibai Bhuvan,
3-A, Proctor Road, Grant Road, Bombay 7.

Khimandas Jagumal & Sons.—12, Gunbow Street, Bombay 1.

Kumar Commercial Co.—12A, Nadirshaw Sukhia Street, Bombay 1.

Machinery Sales Corporation.—Bassam House, 11, Military Square Lane, Fort, Bombay 1.

Motor Industries Co. Ltd.—79, Dr. Annie Besant Road, Worli, Bombay 18.

Naren Kumar Machinery Co.—Oak Chambers, Oak Lane, Bombay 1.

## **FURNACES**

Fabrika. -60, Forbes Street, Bombay 1.

Furnace Mfg. Co.—Nanji Bldg., 17, Horniman Circle, Bombay 1.

Indian Furnace Co. Pvt. Ltd.—Lotus Cinema Bldg., Dr. A. Besant Road, Bombay 18.

Industrial Engineering Works.—38, Police Court Lane, Bombay 1.

Machinery Marketing Corpn.—261, D. N. Road, Bombay 1.
 Wilson Electric Co.—36, Prospect Chambers Annexe,
 D. N. Road, Bombay 1.

## GARAGE TOOLS & EQUIPMENT

Dodge & Seymour (India) Pvt. Ltd.—Kripanidhi, 2nd Floor, 9, Wittet Road, Ballard Estate, Bombay 1 BR.

Garage Equipment & Tools Co.—Kala Bhavan, 3rd Floor, Mathew Road, Bombay 4.

Hemant Tools Trading Co.—33, Bibijan Street, Bombay 3. Jairamdas & Sons.—163, N. Dhuru Street, Bombay 3.

Turner, Hoare & Co. Ltd.—Head Office: Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

## GAUGES & INSTRUMENTS

 Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3.
 Evergreen Corporation.—Lohar Chawl, R. Champsi Path, Bombay 2.

Gordhandas Desai Pvt. Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

Greaves Cotton & Co. Ltd.—1, Forbes Street, Bombay 1. Gujarat Tube & Hardware Mart.—24, Nagdevi X Lane, Bombay 3.

Jairamdas & Sons.—163, Narain Dhuru Street Bombay 3.John Fleming, & Co. Pvt. Ltd.—27, Bastion Road, Bombay 1.

M. Somnath & Co.—94, Lohar Chawl, Bombay 2.

Vasi Shums & Co. Pvt. Ltd.—Vasi Bldg., Nagdevi Street, Bombay 3.

#### GEAR MFRS. & GEAR CUTTING SPECIALISTS

Bharat Switchgear & Consultants.—105, Princess Street, Bombay 2.

Bright Industrial Corpn.—43, Veer Nariman Road, Bombay 1.

Britex Industries.—70, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1.

Gear Sales Corporation.—Elve Chambers, Green Street, Bombay 1.

Precision Gears Pvt. Ltd.—Tiecicon House, Dr. E. Moses Road, Bombay 11.

Supreme Industrial Works.—196/K, Gaiwadi, Girgaum, Bombay 4.

#### GLASS MANUFACTURERS

All India Glass Works Pvt. Ltd.—326, Bail Bazar, Bombay 70.

Bhopal Toughened Glass Works.—83, Abdul Rehman Street, Bombay 3.

Borosil Glass Works Ltd.—Khanna Construction's House, 4th Floor, Abdul Gaffar Road, Worli, Bombay 18.

Light Glass Industries.—Government Industrial Estate, Charkkop, Kandivli, Bombay 67.

Mahalakshmi Glass Works Pvt. Ltd.—Dr. E. Moses Road, Jacob Circle, Bombay 11.

Talwalker Brothers Pvt. Ltd., W. R.—Lentin Chambers, Dalal Street, Bombay 1.

United Glass Works Pvt. Ltd.—326, Arthur Road, Old Kurla, Bombay 72.

Vazir Glass Works, Ltd.—J. B. Nagar, Sir Mathuradas Vasanji Road, Bombay 59.

## HARD BOARDS

Anil Hardboards Ltd.—Lakshmi Insurance Building, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

Hindustan Plywood & Metal Depot.—301, Y. Meheralli Road, Bombay 3.

Mahomedally Valiji Arsiwala.—76, Abdul Rehman Street, Bombay 3.

Nash & Co.—103, Abdul Rehman Street, Bombay 3.

Samir Glass Traders.—21, Dhanji Street, Bombay 3.

Tek Trading Corporation.—139, Abdul Rehman Street, Bombay 3.

Yusufali Goolam Hoos Arsiwalla.—105, Abdul Rehman Street, Bombay 3.

# HEAT TREATMENT AND METAL PROCESSING PRODUCTS

Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Datson Raviraj & Co. Pvt. Ltd.—43, Tamarind Lane, Fort, Bombay 1.

Hardcastle, Waud & Co. Pvt. Ltd.—Alice Buildings, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Isha Steel Treatment.—Agra Road, Vikhroli, Bombay 83.
Pioneer Equipment Co. Pvt. Ltd.—139, Medows Street,
Fort, Bombay 1.

Ronuk Industries Ltd.—11-A, Worli Sea Face, Bombay 18.

## HOISTING MACHINERY (LIFTS & HOISTS)

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3.
Batliboi & Co. Pvt. Ltd.—Forbes Street, P. Box 190-A,
Fort, Bombay 1 (BR).

Consolidated Engineering Equipment Co.—Union Co-op. Insurance Society Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Dodge & Seymour (India) Pvt. Ltd.—Kripanidhi, 9, Wittet Road, Ballard Estate, Bombay 1. Electric Construction & Equipment Co. Ltd.—Wakefield House, Ballard Estate, Bombay 1.

Gujarat Trading Syndicate.—India House, Fort, Bombay 1.

Hercules Hoists Ltd.—Shastri Marg, Bombay 78.

John Fleming & Co. Pvt. Ltd.—21, Bastion Road, Bombay-1.

Tak Machinery Ltd.—Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay 1.

Todi Industries Pvt. Ltd.—(Engineering Division), Todi Estates, Lower Parel, Bombay 13.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co. India Pvt. Ltd.—Hamilton House, Graham Road, Bombay 1.

## HOSIERY MANUFACTURERS

Castle Hosiery Mills.—Agra Road, Bhandup, Bombay 78.Dawn Mills Co. Ltd.—Esperance, 7th Floor, Colaba, Bombay 1.

Golden Hosiery Mills.—6/3, Tak Wadi, Kalbadevi, Bombay 2.

Great Eastern Hosiery Works Pvt. Ltd.—7, Chowpaty Road, Bombay 7.

Hindustan Hosiery Mills.—Kalachowki Road, Bombay 33. Kastur B. Industries Pvt. Ltd.—Forjett Street X Lane, Gowalia Tank, Bombay 26.

Kemi Tex Hosiery Mills.—311, Sardar V. P. Road, Opp. 5th Khetwadi Lane, Bombay 4.

Maharashtra Hosiery Industries.—108, Musa Kassam Bldg., Opp. Rivoli, L. H. Road, Mahim, Bombay 16.

Manmohan Hosiery Mill.—J. Karia Industrial Estate, Unit No. 20A, Mussa Killedar Street, Jacob Circle, Bombay 11.

Menora Hosiery Works Pvt. Ltd.—75, Nehru Road, Bombay 57. Phones: 57-1378-79.

Modern Hosiery Works.— Behind Century Mill, Globe Mill Lane, Bombay 15.

National Hosiery Factory.—Near Paradise Cinema, Mahim, Bombay 16.

New Knitting Co.—Avinash, Ash Lane, Off Gokhale Road, Dadar, Bombay 28.

Parikh Industries.—109, Parsee Bazar Street, Bombay 1. Phoenix Industries.—233B, Abdul Rehman Street, Bombay 3.

Rolex Hosiery Pvt. Ltd.—Delisle Road, Low Level, Bombay 13.

Rattan Hosiery Factory.—19, Chakla Street, Bombay 3. Shree Jam Hosiery Works Pvt. Ltd.—30, Old Hanuman Lane, Bombay 2.

Telstar Hosiery Factory.—Prabhadevi Industrial Estate, Block No. 3, 1st Floor, Swami Vivekanand Marg, Prabhadevi, Bombay 25.

William Industries.—Giriraj, 1st Floor, Tokersey Jivraj Road, Opp. Sewree P.O., Bombay 15.

## HOSPITAL EQUIPMENT & SUPPLIES

Bole Brothers.—49, Princess Street, Bombay 2.

Bright Brothers Pvt. Ltd.—156-A, Tardeo Road, Bombay 34.

Diamond Surgical Dressing Works, The.—381, Arthur Road, Bombay 11.

D. Shah & Co.—24, Sardar Griha Bldg., Carnac Road, Bombay 2. Fairdeal Surgical Corporation.—Bank of Baroda Bldg., Palton Road, Bombay 1.

G. K. Kansara.—118, Kansara Chawl, Bombay 2.

Hitra Equipments.—Opp. V. G. Post Office, Byculla, Bombay 27.

Indian Oxygen Ltd.—Ghatkopar (Lal Bahadur Shastri Marg), Bombay 77.

Jagkumar & Co.-317, D. N. Road, Bombay 1.

Janak Manufacturing Works.—Antop Hill, Wadala, Bombay 31.

Kanchanlal Maganlal & Co.—Bode Chawl, Princess Street, Bombay 2.

M. Shah & Co.—Kanji Mansion, Sardar V. Patel Road, Bombay 4.

National Steel Equipment Co.—Brown Boveri House, Dr. Annie Besant Road, Bombay-25.

National Surgical Instruments Co.—301, Dr. E. Moses Road, Worli Naka, Bombay 18.

Pitambardas Lallubhai & Co.—86, Kansar Chawl, Kalbadevi Road, Bombay 2.

Rak-Der-Kar & Co.—Commissariat Building, Hornby Road, Fort. (For Research and Industries.)

Reliance Electric & Hardware Stores.—55, Krishna Bhuvan, Lohar Chawl, Bombay 2.

Salemahomed Padamsee & Co.—141, Devji Street, P.O. Box 3131, Bombay 3.

Shah & Co., M.—Kanji Mansion, Sandhurst Road, Bombay 4.

Steelmade.—230, Dr. Annie Besant Road, Worli, Bombay 18.

## HOTELS AND RESTAURANTS

FOR YOUR HOLIDAYS

AND FOR YOUR MOST ENJOYABLE STAY
IN A HOME AWAY FROM HOME!
THERE IS NO PLACE LIKE

## HOTEL PALACE AJANTA

(FULLY AIRCONDITIONED)

(ALL ROOMS WITH RADIO & TELEPHONE)

 ★ Delicious Indian Continental and Chinese Cuisine
 ★ Nightly Dinner Dance

"AB-E-HAYAT"

PERMIT ROOM

Be Our Esteemed Guest!

Address:

8, Juhu Tara Road, JUHU, BOMBAY 54 AS.

Phones : 536615, 536160, 538918.

Grams: "BEACHSIDE" Bombay.

IMPORT & EXPORT FIRMS (GENERAL)

# SORABJI NOWROJI & CO.

16, HORNIMAN CIRCLE

FORT

BOMBAY I

LARGEST STOCKISTS OF :

Sandalwood, Palmarosa Oil,

Distillers of 'Crown' Brand Sandalwood Oil.

## Phones:

Head Office: 252410, 252895,

253470

Sales Depot: 331275, 261573,

323262, 351367

Factory : 378316

OLDEST EXPORTERS OF:

Sandalwood, Sandalwood Oil, Palmarosa Oil, Cardamoms, Cellery Seeds, Agar, Sandalwood Garlands, Sandalwood Figures, Ivory Figures, Walnut Wood, Rosewood, Costus Roots, Kashmir Products etc.

Manufacturers & Distributors of Automobile Bi-Metal Bushes and Parts

INDENTORS OF:

Umbrella Cloth, Umbrella Fittings, Czechoslovakia & Italian Glass Beads, and Sole Agents for Artists Materials and other articles

Manufactured by:

M. MYERS & SON LTD.

Birmingham
(England).

## HYDRAULIC TEST PUMPS

Crescent Trading Co.—48-50, Bhajipala Street, Bombay 3.

Pressweld Engineers.—9, Bank of Baroda Bldg., Palton
Road, Bombay 1.

## INDUSTRIAL & COMMERCIAL MANAGEMENT & COST CONSULTANTS

Beacons Pvt. Ltd.—United Bank of India Bldg., Sir Phirozshah Mehta Road, Bombay 1.

## ENDESCO PVT. LTD.

Industrial & Management Consultants, Project Engineers.

Registered Office: Shivaenumh, 205, Dr. A. Besant Road, Worli, Bombay 18.

Grams: "ENDESCON."

Chairman : M. R. Thadani.

Phone: 372614.

Managing Director : H. N. Thadani.

Foreign Associate: Ramseyer & Miller Inc., New York (U.S.A.), Iron & Steel Consultants, Industrial Market Research Ltd., London S.W. I (U.K.).

Project Engineering: Planning for new projects and for expansion of industries for Agricultural machinery, Cement, Engineering, Ferrous and Non-Ferrous Plants, Forging Shops, Rolling Mills, Paper, Chipboard and Fibre Board Plants, Sugar, Textiles.

Management Consultants: Management organisation, financial controls, cost accounting, production planning and equipment utilisation, work standards, job evaluation, piece rates and incentives, material handling and mechanisation, stores organisation and inventory control, material utilisation and waste control, operation research, Pert/CPM, valuation of plant machinery and buildings, selection of Management and technical staff, market research.

Ibcon Pvt. Ltd.—Adelphi House, 119 Queen's Road, Bombay 20.

Personnel & Productivity Service.—148, Mahatma Gandhi Road, Bombay 1.

R. G. Keswani & Co. Pvt. Ltd.—132-A, A. Besant Road, Bombay-18.

## INDUSTRIAL ENGINEERS

Imanes Pvt. Ltd.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56.

Power-Gas Corporation Ltd.—254d, Dr. A. Besant Road, Bombay 18.

#### INK MANUFACTURERS

J. B. A. Printing Inks Pvt. Ltd.—Shastri Marg, Bombay 78.

Rainbow Ink and Varnish Mfg. Co. Pvt. Ltd.—133, Vakola, Santa Cruz (East), Bombay 55.

## Camel

DELUXE Ink



## OTHER CAMEL SPECIALITIES

- · Gum, Paste, Duplicating Inks
- Industrial Adhesives, Cosmetics
- \* Pain Balm & Camlin Fountain Pens.

## CAMLIN PRIVATE LIMITED

(STATIONERY DIVISION)

Andheri-Kurla Road, J. B. Nagar, Bombay-59 (AS)

Grams:

Phones:

'CAMELINK'' Bombay-Andheri

574481/82

Local Sales Office & Show Room 210, Lady Jamshedji Road, Mahim, Bombay-16 DD

Phone: 453458

## **INSULATION MATERIALS**

Ashwinkumar & Co.—Shripu Bhuvan, 49, Mangaldas Road, Lohar Street, Bombay 2.

Asbestos Packing Mfg. Co.—15/A, Bruce Street, Bombay 1. B. B. Electric & Auto Stores.—98, Princess Street, Bombay 2.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Bombay 1. Brady, W. H., & Co., Ltd.—12, Nariman Road, Bombay 1. British Electric Insulating Co. P. Ltd.—33, Forbes Street, Fort, Bombay 1.

British Insulated Calender's Cables Ltd.—Esplanade House, Waudby Road, Bombay 1.

CIBA of India Ltd.—Royal Insurance Building, 14, Jamshedji Tata Road, Bombay 20.

Commonwealth Insulations Chemicals & Fertilisers Pvt. Ltd.—Ismail Building, Dr. D. N. Road, Fort, Bombay 1.

Datson Raviraj & Co. (Pvt.) Ltd.—43, Tamarind Lane, Fort, Bombay 1.

Economic Electric Co., Ltd.—Jail Road, Dongri, Bombay 9.

Fakhruddin & Co.—43, Abdul Rehman Street, Bombay 3.
G. R. Traders.—63, Kitchen Garden Lane, Mangaldas Road (Lohar Chawl), Bombay 2.

Gwalani Bros. & Co. (India) Pvt. Ltd.—199, S. Gandhi Marg, Bombay 2 BR.

Industrial Electrical Engineering Co.—10, Hamam Street, Bombay 1.

Jhaveri Thanawala Pvt. Ltd.—47, Tamarind Street, Bombay 1.

Lighterete Products Pvt. Ltd.—32, Apollo Street, Fort, Bombay 1.

McKenzies Ltd.-Donde Marg, Bombay 15.

Nash & Co.—103, Abdul Rehman Street, Bombay 3. Newkem Insulations.—Harganga Mahal, Khodadad Circle, Bombay 14 DD.

Patel Electric Wire & Insulating Co.-102, Kika Street (Gulalwadi), Bombay 4.

0

Permali Wallace Ltd.—Sanghi Bldg., Palkhi Galli, off Cadell Road, Bombay 25.

Pioneer Magnesia Works, Ltd.—113, Mahatma Gandhi

Road, Bombay 1. Plynet Traders.—"Shahru Castle", Mohamedali Road, (Bibijan Street,) Bombay 3.

Reliance Trading Co.-Vithal Sayana Bldg., Lohar Chawl, Bombay 2.

William Jacks & Co. India Pvt. Ltd.—Hamilton House. Graham Road, Bombay 1.

#### LABORATORY CHEMICALS

Amrutlal Bhurabhai & Co.—Anand Bhuvan, Princess Street, Bombay 2 BR.

B. Babulal & Co.—71, Princess Street, Bombay 2.
B. M. Shah & Co.—40, Princess Street, Bombay 2.

Gordhandas Desai Pvt. Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

Kantilal Manilal & Co.-16, Princess Street, Bombay 2. Kumar & Co.-31, Old Post Office Lane, Bombay 2.

Labo Instruments & Chemical Corporation.—Narsing Lane, Hanuman Baug, G. B. Road, Malad, Bombay 64. National Chemical Corporation.-9, Dev Mansion, S. Gandhi Marg, Bombay 2

Pravin Brothers & Co.—501, Commerce House, Medows Street, Bombay 1.

S. Mathuradas & Co.—P.O. Box No. 2113, Princess Street, Bombay 2.

Vora Brothers.—214-B, S. Gandhi Marg, Bombay 2.

## LABORATORY EQUIPMENT

Adair Dutt & Co. (India) Pvt. Ltd.-Syndicate Bank Bldg., Sir Phirozshah Mehta Road, Bombay 1.

Andhra Scientific Co., Ltd.—Janmabhoomi Chambers, Fort Street, Bombay 1.

Asha Scientific Co.—Lotlikar Mansion, 503, Girgaum Road, Bombay 2

Associated Instrument Mfrs. (India) Pvt. Ltd.—India House, Fort Street, Bombay 1.

Bhagwandas Devshi, Ltd.—87, Shamaldas Gandhi Marg, Bombay 2.

Bole Brothers.—49, Shamaldas Gandhi Marg, Bombay 2. Bright Brothers Pvt. Ltd.—156-A, Tardeo Road, Bombay

Central Scientific Syndicate.—475, Chira Bazar, Bombay 2. D. Shah & Co.—24, Sardar Griha Bldg., Carnac Road, Bombay 2.

Donald & Co.—255, Shamaldas Gandhi Marg, Bombay 2. Gandhi Brothers.—Anand Bhuwan, Shamaldas Gandhi Marg, Bombay 2.

Gansons Pvt. Ltd.-Industry Manor, off Cadell Road, Bombay 25.

Imperial Surgical Co. Pvt. Ltd.—India House, opp. G.P.O., Bombay 1.

India Scientific Traders.—460, Sardar Valabhbhai Patel Road, Bombay 4.

Indsales Corporation.—11, Horniman Circle, Bombay 1. Industrial Mill Gin Stores.—51, Nagdevi Cross Lane, Bombay 3.

Jivraj & Vrajlal.—122, Nagdevi Street, Bombay 3. Kumar & Co.—31, Dr. Deshmukh Lane, Bombay 2

Martin & Harris (Pvt.) Ltd.—Savoy Chambers, Wallace Street, Bombay 1.

National Steel Equipment Co.—Brown Boveri House, Dr. A. B. Road, Bombay 25.

New Surgical Trading Co.—9, Vithaldas Road, Bombay 2. Parekh Bros., Ltd.-65, Mahatma Gandhi Road, Bombay

Pioneer Equipment Co. Pvt. Ltd.—139, Nagindas Master Road, Bombay 1.

Polar Industrial Corporation.—Shree Laxmi Woollen Mills Compound, Off Haines Road, Bombay 11.

Raj-Der-Kar & Co.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Ravindra Heraeus Ltd.—Shanti Nagar, Pipe Line, Vakola, Santa Cruz (East), Bombay 55 (AS).

Reliance Electric & Hardware Stores.—Krishna Bhuvan, Lohar Chawl, Bombay 2

Roberts McLean & Co., Pvt. Ltd.-Ilaco House, Sir P. Mehta Road, Bombay 1.

Scientific & Industrial Supplies Corporation.-17, Babu Genu Road, Bombay 2.

Scientific Instrument Co., Ltd.-240, Dr. Dadabhoy Naoroji Road, Bombay 1.

Shah & Co., M.-Kanji Mansion, Sandhurst Road, Bombay

Techno-Industrial Syndicate.—Noble Chambers, S. A. Brelvi Street, Bombay 1.

Tempo Industrial Corporation.—1, Lamington Chambers, 394, Lamington Road, Bombay 4.

Thermo-Electric Equipment Co. -- 59, Commercial Chambers, Masjid Bunder Road, Bombay 3.

Unique Trading Corporation.—221, Sheriff Devji Street, Bombay 3.

Vora Brothers.—214-B, S. Gandhi Marg, Bombay 2.

## LADDERS

Abba Gani & Co.-1-2, Victoria Road, Bombay 10. Clubwala & Co.-27, Hamam Street, Bombay 1.

Eshak Dada Bamboowala.-72, Ebrahim M. Merchant Road, Bombay 9.

Simplex Timber Mart.—64-66-68, Ibrahim Mohd. Merchant Road, Khadak, Bombay 9.

Standard Ladder Works.—14, Timber Market Compound, Bombay 10.

#### LEATHER GOODS MFRS. AND DEALERS

Art Home.—Bai Jerbai Baug, 1st Lane, Victoria Garden, Byculla, Bombay 27.

Artistic Leather Goods & Accessories .- Phiroz Building. Apollo Pier Road, Fort, Bombay 1.

A. Sale Mohamed & Co.—279, Juma Masjid, Bombay 2. Ashah Brothers.—10/14, Chhipi Chawl, Bombay 2.

Ashdon Green & Co.—16, Apollo Street, Bombay 1.

Bharat Leather Works.-183, Abdul Rehman Street. Bombay 3.

Bhogilal Shah & Co.—Nanabhai Lane, Bombay 1.

Bombay Leather Goods Depot.—14, Shamset Street (Chhipi Chawl), Bombay 2.

Bright Leather Industries.-338, Abdul Rehman Street, near Mahatma Phule Market, Bombay 3.

Dharia Trading Co.-Karawalal Bldg., Lohar Chawl, Bombay 2.

Fakir Mohamed Jan Mohamed & Co.-Madina Building, Palton Road, Bombay 1.

Gold Filled Leather Works.-157-161, Princess Street, Bombay 2.

H. A. Mater & Co.—Dada Manzil, 3rd Floor, Mohamadali Road, Bombay 3.

India Goatskin Corporation Ltd.-Dharavi, Bombay 17. Jayant Industrial Home. - 99, Bhaji Pala Lane, Bombay 3. Kamal Leather Works .-- 5, Mohamedali Road, Mohamedi Bldg., Bombay 3.

Leather Art Industries.—255, Gandhi Gali, Swadeshi Market, Bombay 2.

L. R. Trading Čo.—Navsari Chambers, D. N. Road, Bombay 1.

Maharashtra Leather Works.—Opp. Station Dadar (W. Rly.), Bombay 26.

Mari & Co.-362, V. P. Road, Bombay 4.

Modern Tanners' Co-op. Soc. Ltd.—220, Dharavi Road, Bombay 17.

Mitter & Co.—187, Abdul Rehman Street, Bombay 3.

Noble Leather Works.—82/86, Abdul Rehman Street, Bombay 3.

Pioneer Leather Works.—Sitaram Building, Phule Market, Bombay 1.

Premier Leather Krafts.—55-57, Hamam Street, Fort, Bombay 1.

Sardesai & Co.—14, Murzban Road, Bombay 1.

Sharda Manufacturers.—32, 3rd Bhoiwada Lane, Bombay 2.

S. M. Menty & Co.—11/13, Horniman Circle, Fort, Bombay 1.

Super Leather Works.—336, Abdul Rehman Street, Bombay 3.

Textile Works Pvt. Ltd.—49, Apollo Street, Bombay 1. Thakkar & Sons.—Harbour View, Colaba Causeway, Bombay 1.

United Cottage Industries.—74, Abdul Rehman Street, Bombay 3.

Zephyr Leather Works.—1st Floor, Sethna Bldg., Kitchen Garden Lane, Sheikh Memon Street, Bombay 2.

## LIFTING EQUIPMENTS

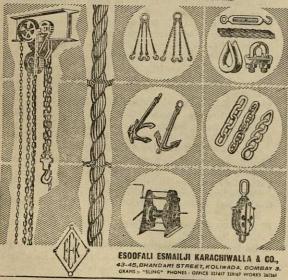


WE MANUFACTURE TO STRICT STANDARDS ALL TYPES OF LIFTING AND ALLIED EQUIPMENTS WHICH INCLUDE:-

HAND OPERATED WINCHES, OVERHEAD TRAVELLING TROLLIES FOR CHAIN PULLEY BLOCKS, CHAIN SLINGS, WIRE ROPE SLINGS, WIRE ROPE NETS. HOOKS, TACKLES, ETC., ETC.

SHIP CHAINS, ANCHOR CHAINS, LIFTING CHAINS, WIRE ROPES, FIBRE ROPES, MANILA ROPES, ANCHORS, LIFTING JACKS— MECHANICAL & HYDRAULIC WE ARE DEALERS IN

MARINE MILLS AND FACTORY STORES AND GENERAL SUPPLIES
we also undertake with guarantee repairs of chain
pulley blocks and extended chain lifts.



## SIMPLEX PRODUCT

All kinds of wooden, Single Folding, Extension Ladders, Bamboo Ladders and Aluminium Ladders.

Specialists of:—Fire Fighting AJAX and Escape Ladders.

0

OD

E

N

F

0

D

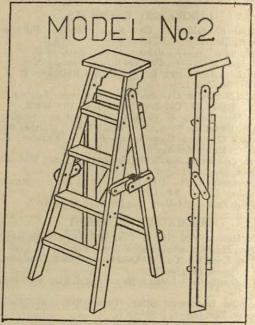
NG

D

D

E

R



Telephone:

Office: 331794

Factory: 693335

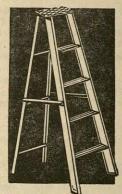
Grams:

## SIMPLEX TIMBER MART

Art No. 10

64/68, I. M. Merchant Road, (P. B. No. 5012), Khadak, BOMBAY-9 (INDIA).

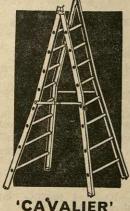
# 'FAMOUS ALUMINIUM LADDERS



'COMPANION'



'CONQUEROR'



Made from high tensile Aluminium Alloy, these ladders are ingeneously designed to give extensive service, combined with maximum safety and protection.

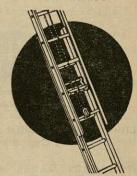
Light in weight, yet three times. stronger than wooden ladders. these ladders are fire-proof, rust-proof, rot-proof and splinter-free.

Unquestionably pleasing appearance, Famous Ladders are for every purpose, general or specialized, private or industrial.

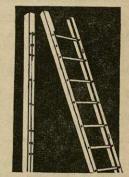
Approved Contractors to the D.G.S. & D. and all Railways

original producers in India.





'COMMANDER'



'COMPACT'

# FAMOUS LADDERS

MANUFACTURING COMPANY

128-130 E Victoria Road, Byculla, Opp. Masina Hospital, BOMBAY-27

Phone: 376447

Grams: "SAFELADDER"

## LITHOGRAPHERS, PHOTO OFFSET PRINTERS



## HALL-MARK ON PACKAGING

## MOHAMADI FINE ART LITHO WORKS

Established:



Telephone: 378148 — 378149

Incorporated:
1938 Mehamadi Build
Nazagon Ros

Telegrams: "KORAN"

Lithographers - Offset and Letterpress Printers and Carton Manufacturers

MOHAMADI MAKES A GOOD IMPRESSION

## MACHINE TOOLS

Acme Manufacturing Co. Ltd.—Construction House, Ballard Estate, Bombay 1.

A. H. Brothers & Co.-26, Sarang Street, Bombay 3.

Armstrong Smith Ltd.—Brady House, 12/14, Veer Nariman Road, Bombay 1.

Batliboi & Co. Pvt. Ltd.—Bharat House, Apollo Street, Bombay 1.

Bharat Diamond Industries.—16/A, Khetwadi 12th Lane, Bombay 4.

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

Blue Star Engineering Co. (Bom.) Pvt. Ltd.—Kasturi Building, Jamshedji Tata Road, Bombay 1.

Bombay Machine Tools & Hardware Corp.—103, Narayan Dhuru Street, Bombay 3.

Consolidated Pneumatic Tool Co. (India) Ltd.—301/302, Agra Road, Mulund, Bombay 80.

Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay 1.

Drewet Chowna & Co.—123, Medows Street, Bombay 1.
Eastern Commercial Trading Co.—Taher Mansion, 12,
N. D. Cross Lane, Bombay 3.

Eastern Machinery & Trading Co.—Imperial Chambers, Ballard Estate, Bombay 1.

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort, Bombay 1.

Fairuz Trading Co.-246, N'Devi Street, Bombay 3.

Forbes Forbes Campbell & Co. Ltd.—Forbes Building, Home Street, Bombay 1. Gajra Gears.—Elve Chambers, Green Street, Bombay 1. Garlick & Co. Pvt. Ltd.—Haines Road, Mahalaxmi, Bombay 11.

Hemco Corporation.—308, Bazar Gate Street, Bombay 1. Hindustan Export & Import Corpn. Pvt. Ltd.—Anand Bhayan, Dr. D. N. Road, Bombay 1.

H. S. Sobha Singh & Sons.—Nagin Mahal, Nariman Road, Bombay 1.

India Machine Tools Corporation.—62, Medows Street, Bombay 1.

Industrial Traders.—158/160, Narayan Dhuru Street, Bombay 3.

Jayems Engineering Co.—Great Western Bldg., 1st Floor, 130-132, Apollo Street, Fort, Bombay 1.

Kerry Jost Tools Ltd.—60, Sir Phirozeshah Mehta Road, Bombay 1.

Machine Tools (India) Pvt. Ltd.—Imperial Chambers, Wilson Road, Ballard Estate, Bombay 1.

Machinery Impex Corporation.—271-A, Nagdevi Streets Bombay 3.

Machinery Marketing Corpn.—261, D. N. Road, Bombay 1.

Macman Engineers (India).—Elar Bldg., 524, Senapati
Bapat Marg, Bombay 28.

Mahindra & Mahindra Ltd.—Machine Tool Division, Mehta Chambers, 13, Mathew Road, Bombay 4.

New Standard Engineering Co. Ltd.—Ram Mandir Road, Goregaon, Bombay 63.

Numex Engineers.—306, Commerce House, Medows Street, Bombay 1.

Pattani Industrial Corporation.—19, Hamam Street, Bombay 1.

Perfect Machine Tools Co.—Bell Bldg., Sir P. M. Road, Bombay 1.

Pravin & Co.-85, Nagdevi Street, Bombay 3.

Remit Manufacturing Co.—Block No. 11, Prabhadevi Industrial Estate, Cadell Road, Bombay 28.

Scottish India Machine Tools Ltd.—2nd Pokhran Road, Thana.

Super Tool Co. Pvt. Ltd.—Kalina, Santacruz East, Bombay 29.

Turner Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Voltas Ltd.—Machine Tool Division, 19, Graham Road, Ballard Estate, Bombay 1.

## MACHINERY MANUFACTURERS & DEALERS

A. D. Wills Rowat (I) Pvt. Ltd.—AVA Chambers, 4, Mahatma Gandhi Road, Bombay 1.

Alcock, Ashdown & Co., Ltd.—16, Bank Street, Fort, Bombay 1.

Alfred Herbert (India) Pvt. Ltd.—Kaiser-i-Hind Buildings, Ballard Estate, Bombay 1.

Armstrong Smith Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Amar Daxini & Sons.—33, Tamarind Lane, Bombay 1. Ashok Engineering Co.—24, Noble Chambers, Parsi

Ashok Engineering Co.—24, Noble Chambers, Parsi Bazar Street, Bombay 1.

Asia Electric Pvt. Ltd.—Yaffi Building, Goa Street, Fort, Bombay 1.

Asian Trading Corporation.—Khorshed Building, 6th Floor, Sir P. M. Road, Bombay 1.

Asiatic Engineers.—Mehta Building, Medows Street Bombay 1. Associated Machine & Tool Co.—130, N. Master Road, Bombay I.

Atul Engineering Co.—Commerce House, 140, Medows Street, Bombay 1.

Automatic Electric Pvt. Ltd.— 'Rectifier House', Naigaum Cross Road, Bombay 31.

Awon Engineers.—38, Hamam House, Hamam Street, Bombay 1.

Babcock & Wilcox of India Pvt. Ltd.—16, Karve Road Estate, Bombay 1.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Batliboi & Co. Pvt. Ltd.—Forbes Street, P. Box 190A, Fort, Bombay 1.

Bharat Electric & Engineering Corporation.—21, Dalal Street, Bombay 1.

Bharat Imports & Exports.—6, Oak Lane, Bombay 1.

Bombay Co. Pvt. Ltd.—9, Wallace Street, Fort, Bombay 1.

Bombay Machinery Stores (India).—105, Apollo Street,
Bombay 1.

Brady, W. H., & Co., Ltd.—12, Nariman Road, Bombay 1.

British Engineering Co.—105, Apollo Street, Fort, Bombay 1.

Cambata & Co. Pvt. Ltd.—Cambata Building, 42, Karve Road, Bombay 20.

Capri Engineering Co.—296, P. D'Mello Road, Bombay 1.
Chandiwala Engineering Co.—Green House, Green Street, Bombay 1.

Consolidated Pneumatic Tool Co. Ltd.—301/302, Agra Road, Mulund, Bombay 80.

Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay 1.

Crescent Agency Pvt. Ltd.—Beaumon Chambers, N. Master Road, Fort, Bombay 1.

D. Parikh Engineering Works.—Nagoo Sayachi Wadi, New Prabhadevi Road, Bombay 25.

Deccan Machinery & Mill Stores Co.—75, Tamarind Lane, Bombay 1.

Deelipkumar & Co.—313, Commerce House, Medows Street, Bombay 1.

Dinshaw, M. H., & Co.—105, Apollo Street, Fort, Bombay 1.

Drewet, Chowna & Co.—123, N. Master Road, Bombay 1.

Duncan Stratton & Co. Ltd.—29, Bank Street, Fort, Bombay 1.

Dwarkadas & Sons Pvt. Ltd.—Mehta House, 89, Apollo Street, Bombay 1.

Eastern Industrial Syndicate.—135, N. Master Road, Bombay I.

Eastern Machinery & Trading Co.—Imperial Chambers, Wilson Road, Ballard Estate, Fort, Bombay 1.

Edgar Handley Co. Pvt. Ltd.—139, N. Master Road, Fort, Bombay 1.

Economic Traders.—35, Tamarind Lane, Bombay 1.

Elve Business Contacts Corporation.—Elve Chambers, Green Street, Bombay 1.

Emarsso Sales Corporation.—69, New Stock Exchange Building, Apollo Street, Bombay 1.

Engine Spares Corpn.—315, Commerce House, 3rd Floor, Bombay 1.

Eranee Brothers, (L.M.).—43, Forbes Street, Bombay 1. Essential Engineering Co.—11/13, Botawala Building, Horniman Circle, Bombay 1. Everest Engineering Corporation.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1.

Francis Klein & Co. (Bombay) Pvt. Ltd.—Shale Building, Bank Street, Fort, Bombay 1.

Gammon India Ltd.—Hamilton House, Ballard Estate, Bombay 1.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Bombay 1.

Garlick & Co. Pvt. Ltd.—Haines Road, Jacob Circle, Bombay 11.

General Spares & Engineering Co.—Raja Bahadur Bldg., No. 5, 1st Floor, 43, Tamarind Lane, Bombay 1.

General Radio & Appliances Ltd.—United House, M. Paramanand Marg, Bombay 4.

Gladwyn & Co.-251, D. N. Road, Fort, Bombay 1.

Gleitlager (India) Pvt. Ltd.—Manu Mansion, 16, Old Custom House Road, Bombay 1.

 Greaves Cotton & Co., Ltd.—1, Forbes Street, Bombay 1.
 H. S. Sobha Singh & Sons.—Nagin Mahal, Nariman Road, Bombay 1.

Hajare & Bros., Y. A.—1st Panjrapole Lane, Madhav Baug, Bombay 4.

Hardcastle, Waud & Co. Pvt. Ltd.—Alice Building, D. N. Road, Fort, Bombay 1.

Heatley & Gresham, Ltd.—43, Forbes Street, Fort, Bombay 1.

Hindustan Industrial Corporation.—327, D. N. Road, Fort, Bombay 1.

Honesty Trading Corporation.—Beaumon Chambers, Medows Street, Bombay 1.

Indento Pvt. Ltd.—Harilela House, 8th Floor, 36, Mint Road, Bombay 1.

India Engineering Works.—25, Opp. Share Bazar Building, Hamam Street, Bombay 1.

India Machine Tools Corporation.—62, N. Master Road, Bombay 1.

Indo-Berolina Ind. Pvt. Ltd.—Victor Building, S. A. Brelvi Road, Fort, Bombay 1.

Industrial & Agricultural Engineering Co. (Bombay) Pvt. Ltd.—43, Forbes Street, Bombay 1.

Industrial Engineering Co.—51, Apollo Street, Bombay 1.Industrial Stores Co.—Seksaria Chambers, 139, Medows Street, Fort, Bombay 1.

Interstate Engineering Co.—132, Medows Street, Fort, Bombay 1.

Investa Machine Tools & Engineering Co., Ltd.—Ewart House, Bruce Street, Fort, Bombay 1.

J. D. Corporation.—64, Old Custom House Road, Bombay 1.

John Fleming & Co. (India) Pvt. Ltd.—Sukhadwala Building, Bastion Road, Fort, Bombay 1.

John Fowler, (India) Ltd.—Marshall's Building, Ballard Road, Bombay 1.

Khemka & Co. (Agencies) Pvt. Ltd.—Vulcan Insurance Bldg., 202-A, Vir Nariman Road, Bombay 20.

Khimandas Jagumal & Sons.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1.

Kumar Commercial Co.—12A, Nadirshaw Sukhia Street, Bombay 1.

K. Suchde Brothers.—82, Apollo Street, Bombay 1.

K. S. Trivedi & Co.—Bombay Mutual Chambers, 19-21, Hamam Street, Bombay 1.

Larsen & Toubro Ltd.—L. &. T. House, Dougall Road, Ballard Estate, Bombay 1. Latham Abercombie & Co. Pvt. Ltd.—Forbes Building, Home Street, Fort, Bombay 1.

Linotype & Machinery, Ltd.—Botawalla Building, Horniman Circle, Fort, Bombay 1.

Machine Tools & Implements.—93, Narayan Dhuru Street, Bombay 3.

Machine Tools Traders.—45, Dhanji Street, Bombay 3.

Machinery & Spares.-30, Apollo Street, Fort, Bombay 1.

Machinery Impex Corporation.—271-A, Nagdevi Street, Bombay 3.

Machinery Trading Corporation.—66, Medows Street, Fort, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Fort, Bombay 1.

Manohar Brothers.—4, Commerce House, N. Master Road, Bombay 1.

Marshall, Sons & Co. (India), Ltd.—79, Dr. A. B. Road, Bombay 18.

Martin Brothers.—24, Noble Chambers, Parsi Bazar Street, Bombay 1.

Mather & Platt, Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

M. H. Dinshaw & Co.—105, Apollo Street, Bombay 1.

Millars Timber & Trading Co., Ltd.—Victoria House, Victoria Road, Bombay 27.

Modern Engineering Co.—107, Apollo Street, Bombay 1. Narenkumar Machinery Co.—9, Oak Lane, Opp. Medows Street, Bombay 1.

National Electrical Industries Ltd.—Industrial Estate, Lalbaug, Bombay 12.

National Traders.—Advani Chambers, Sir Phirozshah Mehta Road, Bombay 1.

Navinchandra & Co.—Commerce House, Medows Street, Bombay 1.

New Standard Engineering Co., Ltd.—N.S.E. Estate, Goregaon (E), Bombay 63.

Nigo's Corporation.—63, Forbes Street, Kala Ghoda, Bombay I.

Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1.

Oriental Trading Co.—320, Commerce House, 140, Medows Street, Bombay 1.

Overseas Manufacturers Sales Co.—India House, Fort Street, Opp. G.P.O., Bombay 1.

Parry & Co., Ltd.—United India Building, Sir Phirozshah Mehta Road, Bombay 1.

Pattani Industrial Corporation.—19, Hamam Street, Bombay 1.

Perfect Machine Tools Co.—19, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Pioneering Engineering Co.—57, Apollo Street, Fort, Bombay 1.

Pioneer Equipment Co., Pvt. Ltd.—139, Nagindas Master Road, P.O. Box 1909, Bombay 1.

Pioneer Industrial & Engineering Co.—Sardargriha Building, 198, Carnac Road, Bombay 1.

Popular (Imp.-Exp.) Trading Co.—Javeri House, 110, N. Master Road, Bombay 1.

P. Rai & Co.-121, Commerce House, Bombay 1.

Pravin & Co.—85, Nagdevi Street, Bombay 3.

Protos Engineering Co., Pvt. Ltd.—173, Jamshedji Tata Road, Bombay 20.

Ramchand Mathradas Aggarwal.—30, Khoka Bazar, Sarang Street, Bombay 3. Rameshchandra Jeshingbhai.—Advani Chambers, Sir P. M. Road, Bombay 1.

Richardson & Cruddas Ltd.—Byculla, Bombay 8.

River Valley Equipment Co.—381, Dadabhoy Naoroji Road, Bombay 1.

Roberts McLean & Co., Ltd.—Ilaco House, Sir P. Mehta Road, Bombay 1.

S. A. Kaiyum & Co.—142, Sarang Street, Bombay 3.

Shah Patel & Co.—109-111, Nagdevi Street, Bombay 3. Shubh Machinery Corporation Pvt. Ltd.—15, Bank Street,

Fort, Bombay I.

Sigil (India) Services Pvt. Ltd.—381, Dadabhoy Naoroji Road, Bombay 1.

Smidth, F. L., & Co. (Bombay) Pvt. Ltd.—124D, Karve Road, Bombay 20.

Solanki Iron & Steel Works.—Bhoris Chawl, M. Shaukat Ali Road, Bombay 7.

Somani & Co. Pvt. Ltd.—Das Chambers, Dalal Street, Bombay 1.

Standard Spares & Machinery Co.—Bouna Casa, 1st Floor, Sir P. M. Road, Bombay I.

Supreme Industrial Works.—196-K, Gaiwadi, Girgaum, Bombay 4.

Suryodaya Trading Co.—Hanuman Bldg., Horniman Circle, Bombay 1.

Swastik Diesel & Engineering Corpn.—31, Forbes Street, Bombay 1.

Textile Machinery Corporation Ltd.—254A, Besant Road, Bombay 25.

Textile Works Ltd.—49, Apollo Street, Fort, Bombay 1.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

United India Engineering Co.—6, Commerce House, N. Master Road, Bombay 1.

Vasant Industrial & Engineering Works.—470, Worli Road, Bombay 18.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co. (I) Pvt. Ltd.—Hamilton House, Ballard Estate, Bombay 1.

Zenith Textile Engineering Co.—250, Ripon Road, Byculla, Bombay 8.

# MATERIAL & MECHANICAL HANDLING EQUIPMENT & CONVEYORS

Amirudin Shalebhoy Tyebjee & Sons.—Shale Bldg., 2nd Floor, Bank Street, Fort, Bombay.

Consolidated Engineering Equipment Co.—Co-op. Ins. Society Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Dynacraft Machine Co. Pvt. Ltd.—Material Handling Engineers, Andheri, Bombay 58.

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort, Bombay 1.

Esoofali Esmailji Karachiwala & Co.—43-45, Bhandari Street, Koliwada, Bombay 3.

Gujarat Industrial Trucks Ltd.—India House, Fort Street (Opp. G.P.O.), Bombay 1.

Gujarat Trading Syndicate.—India House, Fort Street, Bombay 1.

Hercules Hoists Ltd.—Shastri Marg, Bombay 78.

India Engg. & Metal Corpn.—India House, Opp. G.P.O., Bombay 1. Jost's Engineering Co. Ltd.—60, Sir Phirozshah Mehta Road, Bombay 1.

Marian Engineering Co.—Botawala Bldg., Horniman Circle, Bombay 1.

Radiant Electric & Machinery Co.—Sir Vithaldas Chambers, Bruce Street, Bombay 1.

Standard Equipment Corporation.—G.P.O. Box No. 914, 19, Bank Street, 2nd Floor, Fort, Bombay 1.

Todi Industries Pvt. Ltd.—(Engineering Division) Todi Estates, Lower Parel, Bombay 13.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co. (I) Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

## METALLIZING ENGINEERS

Autogenous Welding & Repair Co. Pvt. Ltd.—63, Fergusson Road, Bombay 13.

Jetha Metallizing Pvt. Ltd.-Byculla, Bombay 27.

## METALLIZING

INCREDIBLE!

Incredible is the only word to describe the performance of METALLIZED parts of machinery for they keep huming LONG AFTER the new ones have stopped breathing.

Consult Experts:

# OMEGA METALLIZING ENGINEERS PVT., LTD.

Off. Haines Road, Dhobighat, Worli Naka, BOMBAY 18.

Phone: 375583. Grams: "ROOMAKH".

## METAL MANUFACTURERS AND MERCHANTS

Abdullhabhai Faizullabhai Ltd.—62, Sarang Street, Bombay 3.

Abdullhabhai Faizullabhai Ltd.—62, Sarang Street, Bombay 3.

Adamji Lookmanj & Co.—Rahimtoola House, Homji Street, Fort, Bombay 1.

Andheri Metal Refinery and Foundry.—Chandi Karkhana, West Mogra, Andheri, Bombay 69.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

0

Bharat Trading Co.—71, Nagdevi Cross Lane, Bombay 3. Bombay Metal Syndicate.—166, Kika Street Gulalwadi, Bombay 4.

Chandulal Narandas.—96, Kika Street, Shop No. 1, Bombay 4.

Choonilal Mohanlal & Co.—54, Kika Street, (Gulalwadi), Bombay 4.

Devidayal Metal Industries.—157, Kika Street, Bombay 4.
Dineshchandra Keshavlal & Co.—209, Kika Street,
Bombay 2.

Francis Klein & Co. (Bombay), Pvt. Ltd.—Shale Building, Bank Street, Fort, Post Box No. 777, Bombay 1.

G. K. Kansara.—118, Kansara Chawl, 1st Floor, Kalbadevi Road, Bombay 2.

Hind Hardware Stores.—Pirbhoy Building No. 1, Lohar Chawl, Bombay 2.

Hindustan Metal Manufacturing Co.—Lal Chimney Compound, A. Nair Road (North), Bombay 11.

India Metal Traders.—92/94, Kika Street, Gulalwadi, Bombay 4.

Indian Smelting & Refining Co., Ltd.—Bombay-Agra Road, Bhandup, Bombay 78.

Indian Standard Metal Co., Ltd.—Chinchpokli Cross Lane, I.S.M. Estate, Bombay 27.

Jaipur Metals & Electricals Ltd.—Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1.

Jayant Metal Manufacturing Co.—152, Lohar Street, Bombay 2.

Kamani Metals & Alloys Ltd.—Kamani Chambers, Ballard Estate, Bombay 1.

Lallubhai Kalidas.—136, Jambli Mohalla, Bombay 3.

# METAL PERFORATORS PRIVATE LTD.

Manufacturers of:

Industrial Metal Screens in any Sheet, Metal & Material
—Mild Steel, Stainless Steel, Brass, Copper, Aluminium,
Monel & Zinc etc.

Udyog Nagar, Udhna (Dist. Surat).

Phone: 8310. Telex 018-218.

Bombay Office: Annes Chambers, Carnac Road, Bombay I.

Phone: 263001. Telex Bombay: 011-2624

Grams: "DUTYBOUND", Bombay.

Metallica Works Pvt. Ltd.-138/141, Govt. Industrial Estate, Kandivli (West), Bombay 67.

Oriental Metal Pressing Works Pvt. Ltd.-131, Worli, Bombay 18.

Soorchand Kewaldas.-15, Tamakanta, Bombay 3.

Standard Metal Works Pvt. Ltd.-17, Falkland Bridge, Tardeo, Bombay 34.

Tambawala Products Agencies Pvt. Ltd.-66, Narayan Dhuru Street, Bombay 3.

Trade (India) Corporation.—Resham Bldg., Mohamedalli Road, Bombay 3.

Union Carbide India Ltd.—Kasturi Building, Jamshedji Tata Road, Bombay 1.

Vasantlal Vadilal & Co.—215, Samuel Street, Vadgadi, Bombay 3.

Vishwa Bharati Trading Co.-45, Bhagat Singh Road, Bombay 1.

V. M. Metal Co., (Prop. V. K. Shah) (Estd. 1950).-180, Kika Street, Bombay 4.

Vora Trading Co.—Vakil Bldg., Vadgadi, Bombay 3. Vyas Brothers.-65, Tamba Kanta, Bombay 3.

#### MILL AND GIN STORES

Abdeally, B. M., & Co.-127, Sarang Street, Bombay 3.

Acme Mfg. & Agencies (India) .- 4, Dean Lane, Alli Chambers, Bombay 1.

Acme Bobbins & Shuttles Pvt. Ltd.-8, Hamam Street, Bombay 1.

Aeme Manufacturing Co., Ltd.-Construction House, Wittet Road, Ballard Estate, Bombay 1.

Acme Printing & Cone Mfg. Co.—Atlas Mills Compound, Reay Road, Bombay 10.

A. Gandhi Trade Channels.—25, Bank Street, Bombay 1. Agarwal Commercial Corp. -- 35, Bibijan Street, Nagdevi. Bombay 3.

Altex Pvt. Ltd.-147, Mahatma Gandhi Road, Fort, Bombay 1.

Amrutlal Bhurabhai & Co.-Anand Bhuvan, Princess Street, Bombay 2.

Ardeshir D. Wadia & Sons.—93, Apollo Street, Fort, Bombay 1.

Arvinda Trading Co. Pvt. Ltd.—105, Apollo Street, Fort, Bombay 1.

Associated Bobbin Co.-69, Mody Street, Bombay 1.

Associated Machine & Tool Co.-130, N. Master Road, Bombay 1.

Associated Textile Corporation.—Hira Mahal, 207, Kazi Sayed Street, Bombay 3.

Baker, A. M., & Co.-218, Nagdevi Street, Bombay 3.

Beltex Ltd.-43, Tamarind Street, Bombay 1.

Bharat Industrial Co.-77, Nagdevi Cross Lane, Bombay 3. Bharat Textile & Sizing Co.-49, Podar Chambers, Parsee Bazar Street, Bombay 1.

Biltmore Industries.—Sabu Sidiq Hospital Compound, 84, Imam Wada Road, Bombay 9.

B. Mehta & Co.-Union Bank Building, Apollo Street, Bombay 1.

Bombay Mill Stores Supplying Co., Pvt. Ltd.-Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Bombay Reeds Mfg. Co.-Botawala Building, 7-10, Horniman Circle, Bombay 1.

Bombay Ring Travellers Co. Ltd.—Neville House, Graham Road, Ballard Estate, Bombay 1.

Bombay Shuttle Mfg. Co.-21, Dalal Street, Bombay 1. Bombay Tools Supplying Agency.-50, Nagdevi Cross Lane, Bombay 3.

Bombay Wire Healds Mfg. Co.-4/301, Sonawala Estate, Goregaon (East), Bombay 63.

Brady, W. H., & Co., Ltd.-12, Veer Nariman Road, Bombay 1.

British Mill Stores Co.—Sir Vithaldas Chambers, Bruce Street, Bombay 1.

B. Thanawalla & Sons Pvt. Ltd.-47, Tamarind Lane, Bombay 1.

Central Tool & Equipment Co.-32, Sarang Street,

Bombay 3. Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort, Bombay 1.

C. J. Textile Accessories Works .- 63, Marine Drive, Krishna Mahal, Bombay 1.

Collinson & Co., Pvt. Ltd.-Standard Building, D. N. Road, Bombay 1.

Consolidated Mill Supplies Pvt. Ltd.—Co-operative Insurance Building, Sir Phirozshah Mehta Road, Bombay 1. Continental Trading Syndicate.—28, Apollo Street,

Bombay 1.

Dean & Webber Mill Stores Co.-5A, Advani Chambers, Sir Phirozshah Mehta Road, Bombay 1.

Dilip Hardware & Mill Gin Stores.-65, M. Gandhi Road, Opp. Mercantile Bank Buildings, Bombay 1.

Duncan Stratton & Co., Ltd.—29, Bank Street, Bombay 1. Dwarkadas Khetan & Co.-139, N. Master Road, Bombay 1.

Eastern Stores & Trading Co., Ltd.—115-A, Nagdevi Street, Bombay 3.

Edgar Handley & Co. Pvt. Ltd.—139, N. Master Road, Fort, Bombay 1.

Empire Trading Co.—76-A, Ali Chambers, Tamarind Street, Bombay 1.

Engineer Bros.-Vithaldas Chambers, Apollo Street, Fort, Bombay 1.

Engineering & Agencies Pvt. Ltd.—French Bank Bldg., Homji Street, Bombay 1.

Excelsior Mill Supply Co.—Alli Chambers, Medows Street, Bombay 1.

Gajjar Industries.—Mantri's Wadi, Sainath Road, Malad West, Bombay 64.

Gannon Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Bombay 1.

Getz Bros. & Co.-Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Ghatlia Reeds Mfg. Works.—Gold Mohar, 2nd Floor, 174, Princess Street, Bombay 2.

Ghia Textile Products Co.-121, Mahatma Gandhi Agra Bldg., 1st Floor, Bombay 1.

Grand Wood Works & Saw Mills .- Connaught Road, Ghorupdeo, Bombay 33.

Greaves Cotton & Co., Ltd.—1, Forbes Street, Bombay 1.

Greentose Pvt. Ltd.—24, Dalal Street, Bombay 1. Hardcastle, Waud & Co., Ltd.—Alice Building, D. N. Road, Bombay 1.

Hasmukh TextileWorks.—79, Princess Street, Devkaran Mansion, Block No. 1, 2nd Floor, Bombay 2.

Hind Textile Stores.—59, Podar Chambers, Parsee Bazar Street, Bombay 1.

Hindustan Textile Stores Co.—Flat No. 15, 1st Floor, 27, Tamarind Lane, Rajabahadur Compound, Bombay 1.

Imperial Trading Co.—7, Alli Chambers, Tamarind Lane, Bombay 1.

Inarco Ltd.—Advent Building, 12A, Foreshore Road, Bombay 20.

India Textile Stores.—Mehta Building, 47, Nagindas Master Road, Bombay 1.

Indian Stores Trading Co.—Sir Vithaldas Chambers, 10, Bruce Street, Fort, Bombay 1.

Indian Textile Engineers Pvt. Ltd.—81-93, Veer Nariman Road, Bombay 1.

Indo-Bombay Trading Co.—34, Nagdevi Street, Bombay 3.
Indo-British Trading Bureau.—Horniman Circle, Fort, Bombay 1.

Indo-Foreign Textile Co.—43, Tamarind Lane, Bombay 1.
Industrial Equipment Mfg. Co.—Kasturchand Mills
Estate, Bhawani Shankar Road, Dadar, Bombay 28.

Industrial Engineering Co.—45/47, Apollo Street, Fort, Bombay 1.

Industrial Stores Co.—Seksaria Chambers, 139, Medows Street, Fort, Bombay 1.

Industrial Textile Products,—Great Social Bldg., Sir Pherozshah Mehta Road, Bombay 1.

Industrial Textile Stores Co.—Horniman Circle, Bombay 1.
Ishwarlal Tarachand.—34B, Podar Chambers, Parsi Bazar Street, Bombay 1.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. Jayant Mehta & Co.—21, Hamam Street, Bombay 1.

Jayashankar Nathalal & Co.—5, Alli Chambers, Tamarind Lane, Bombay 1.

John Roberts & Co. Pvt. Ltd.—Sewree Fort Road, Sewree, Bombay 15.

Jones & Co. (Bombay) Pvt. Ltd., J. D.—Rustom Building, Nariman Road, Fort, Bombay 1.

Jyoti Textile Traders.—9, Alli Chambers, Tamarind Lane, Bombay 15.

Kaka Brothers.—National House, 6, Tulloch Road, Bombay 1.

Kaliandas Jagmohandas & Sons.—11, Alli Chambers, Tamarind Lane, Bombay 1.

Khusaldas J., & Co.—77, Nagdevi Street, Bombay 3.

K. Mahendra & Co.—8, Hamam Street, Fort, Bombay 1. Kumudchandra & Co.—29, Dalal Street, Bombay 1.

Laxmi Textile Stores.—58, Ardeshir Dady Street, Golpitha, Bombay 4.

Mahaveer Textile Traders.—98, Ardeshir Dady Street, Bombay 4.

Manchester Machinery & Sizing Suppliers.—Lentin Chambers, 3rd Floor, Dalal Street, Bombay 1.

Mangaldas & Sons.—Lentin Chambers, Dalal Street, Bombay 1.

Masturlal Chunilal & Co.—Shreyas Building, 1st Floor, 182, Madam Cama Road, Bombay 20.

Mayashanker Thacker & Co.—65, Apollo Street, Fort, Bombay 1.

M. Best Cotton Rope Mfg. Co.—47/41, Forbes Street, Bombay 1.

Mehta Brothers.—Hamam House, Hamam Street, Fort, Bombawl.

Mehta Bros. & Co.—78, Apollo Street, Fort, Bombay 1.
Mehta Nanavaty & Co.—Barbhai Moholla, 96, Narayan Dhuru Street, Bombay 3.

Mehta Parikh & Co. Pvt. Ltd.—45/47, Apollo Street, Bombay 1.

Merchant & Co.—Tamarind House, 2nd Floor, 36, Tamarind Lane, Bombay 1.

Merchant Brothers & Co.—46/62, Ardeshir Dady Street, Lad Nivas, Bombay 4.

Mill Stores Trading Co. of India Pvt. Ltd.—79/91, Apollo Street, Mehta House, Bombay 1.

Modern Shuttle Manufacturing Co., Ltd.—15, Forbes Street, Fort, Bombay 1.

Mody Trading Co.—163, Nagdevi Cross Lane, Bombay 3.
N. Dinshaw & Co. (Estd. 1945).—14, Ismail Building, Flora Fountain, Bombay 1.

N. Kishore & Co.—39, Podar Chambers, Parsee Bazar Street, Bombay 1.

Nagindas Kilabhai Pvt. Ltd.—Crescent Chambers, Tamarind Lane, Bombay I.

Narendra Trading Co.—Agakhan Building, 9/13, Dalal Street, Bombay 1.

Noble Mill Stores Co.—Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Ormerods (India), Ltd.—Bank of Baroda Building, Apollo Street, Bombay 1.

Paramount Textile Agency.—45/47, Apollo Street, Bombay 1.

Parekh Bros.—Sangli Bank Building, 296, Bazargate
 Street, Fort, Bombay 1.
 Parikh Brothers & Co.—45-47, Apollo Street, Fort,

Bombay 1.

Pickers Ltd.-43, Tamarind Street, Bombay 1.

Prakash Trading Co.—Mangrol Mansion, 204/224, Bora Bazar Street, Bombay 1.

Printer, D. P., & Co.—154, Bruce Street, Bombay I. Punegar, N. E. & Co.—New Union Bank Building, Dalal

Punegar, N. E. & Co.—New Union Bank Building, Dala Street, Fort, Bombay 1.

R. R. Jinde & Co.—14, Mohan Nivas, Chandavarkar Road, Bombay 19.

Rajkamal Traders.—23, Hamam Street, 3rd Floor, Bombay 1.

Ramesh Trading Co.—11, Bruce Street, Bombay 1.
Ruby Trading Co.—Sambaya Chambers, Sir Phirozshah

Mehta Road, Bombay 1. Shree Mahavir Trading Co.—3rd Floor, Hamam House,

Hamam Street, Bombay 1.
Sitaspin Trading Corporation.—Raja Bahadur Mansion,
11 Floor, 14, Hamam Street, Bombay 1.

Sizing Materials Co., Ltd.—Jeroo Building, Mahatma Gandhi Road, Bombay 1.

Sonal Wirehealds Mfg. Works.—244, Nasrani Lane, Halav Bridge, Kurla, Bombay 70.

Standard Materials Agencies.—45-46, Podar Chambers, Parsee Bazar Street, Bombay 1.

Star Textile Engg. Works Ltd.—12, Apollo Street, Bombay 1.

Star Trading Co. Pvt. Ltd.—12, Apollo Street, Bombay 1. Sun Stores Pvt. Ltd.—61, Tulsi Nivas, "D" Road, Marine

Drive, Bombay 20. Suresh & Brothers.—104, Sir Vithaldas Chambers, 16,

Apollo Street, Bombay 1.

Texind Corporation Pvt. Ltd.—Kermani Building, Sir

Pherozshah Mehta Road, Bombay 1. Texspin Pvt. Ltd.—Jhaveri House, 110, Nagindas Master Road, Bombay 1.

Texray Traders Pvt. Ltd.—Laxmi Building, 6, Ballard Road, Bombay 1. Texspin Engg. & Mfg. Works.—264, Opp. Central Cinema, Bombay 4.

Textile Machinery Corporation, Ltd.—254-A, Annie Besant Road, Worli, Bombay 25.

Textile Supplies Syndicate (India), Pvt. Ltd.—India House, 1st Floor, Opp. G.P.O., Bombay 1.

Thana Textile Rope Works.—Crescent Chambers, Tamarind Lane, Bombay 1.

Timco Textile Industries.—22, Bombay Timber Market, Reay Road, Bombay 10.

Tropical Traders.—485, Kalbadevi Road, Takwadi, New Silk Bazar, Bombay 2.

Trustin Pvt. Ltd.—Yusuf Manzil, 58, Forbes Street, Bombay I.

Typhoon Blower Co.—19, Hamam Street, Bombay 1.

U. D. Patel & Co. Pvt. Ltd.—11, Bank Street, Fort, Bombay 1.

Universal Supply & Trading Co.—Ismail Building, 381, Dr. D. N. Road, Bombay 1.

Victor Trading & Engineering Co. Pvt. Ltd.—Victor House, Jacob Circle, Bombay 11.

Vinod Mehta & Co.—22-B, Noble Chambers, Parsee Bazar Street, Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

Western Engineering Co.—Western India House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Western India Tanneries Ltd.—Dharavi Road, Bombay 17.
Western Textile Corporation.—Prospect Chambers Annexe, Hornby Road, Bombay 1.

## MINERAL MERCHANTS

## MINERALS

For Every Industrial Purpose Available from Ready Stock

Silica Sands, White Sands, Moulding Sands, Graded Sands according to order, Graphite Powder, Bentonite Powder, Fire clays (Black & White), Gypsum, French Chalk, Fire Bricks & Everything for Foundry Equipment.

Enquiries invited

## R. H. SAMANT & COMPANY

Silica Mine Owners,
Mineral Merchants & Refractories.

Office: Brick Bunder, Hay Bunder Road, Bombay 33.

Resi.: 91-K, Koliwadi-Fanaswadi, Bombay 2. 280/81, Jawahar Nagar, Goregaon, Bombay 62.

Appointed Dealers:
Messrs. Burn & Co. Ltd.

Messrs. Samant Silica Mine Works, Vengurla, Dist. Ratnagiri.

Transport for immediate delivery-Samant Transport.

## OFFICE EQUIPMENT & SUPPLIES

Apex Enterprises.—17/5th Floor, Mohatta Market, Palton Road, Bombay 1.

Artytoys.—Cowasji Jehangir Colony, Tardeo, Bombay 7. Bellares Pvt. Ltd.—210-A, Bhadkhamkar Marg, Bombay 7.

Bombay Safe Manufacturing Co.—307-9, Kalbadevi Road, Bombay 2.

Forbes, Forbes Campbell & Co. Ltd.—(Latham Division, Forbes Building, Home Street, Fort, Bombay.

General Equipment Merchants, Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

General Office Equipment Co.—Anand Bhuvan, 3rd Floor, Dr. D. Naoroji Road, Fort, Bombay.

Gestetner Duplicators Ltd.—Construction House, Ballard Estate, Bombay 1.

Gillanders Arbuthnot & Co. Ltd.—16, Queen's Road Estate, Bombay 1.

Good Luck Steel Products.—401 B, Clerk Road, Jacob Circle, Bombay 11.

Govin's Safe Manufacturing Co.—266-68, Kalbadevi Road, Bombay 2.

Janak Manufacturing Works.—Antop Hill, Wadala, Bombay 31.

Methodex Business Systems.—33-A, New Marine Lines, Bombay 20.

National Cash Register Co.—125, D. Vachha Road, Bombay 20.

National Steel Equipment Co.—Hind Rajasthan Industrial Estate, Wadala, Bombay 31.

Remington Rand of India Ltd.—15, Mathew Road, Bombay 4.

Roneo Vickers.-39, Bashion Road, Bombay 1.

Steel Age Industries Pvt. Ltd.—Opp. Post Office, Mazagaon, Bombay 10.

Steelmade, Dr. Annie Besant Road, Worli, Bombay 18.

## OIL & OIL PRODUCTS

Ahmed Oomerbhoy Oil Mills.—Two Tanks, Bombay 8. Bachhraj Factories Pvt. Ltd.—51, Mahatma Gandhi Road, Fort, Bombay 1.

Bajrang Mills & Fertiliser Co.—Meghdoot, 95-B, Netaji Subhash Road, Bombay 2.

Bhavnagar Oil & Chemical Industries Pvt. Ltd.—Bombay Mutual Building, Dr. D. N. Road, Fort, Bombay 1.

Bombay Oil Industries Pvt. Ltd.—Kanmoor House, Narshi Natha Street, Bombay 9.

Carr & Co. Ltd.—Imperial Building, Wilson Road, Ballard Estate, Bombay 1.

Commodity Commercial Link.—7, Anna Bhavan, 1st Floor, 87-C, Broach Street, Bombay 9.

Damji Manji.—208, Sandhurst Road, Bombay 4.

Dewas Flour Oil & De-oiled Cake Factory.—Commissariat Bldg., 231, Dadabhoy Naoroji Road, Bombay 1.

Hanuman Cottonseed Products Pvt. Ltd.—Shree Niketan, 99, Marine Drive, Bombay 2.

Haridas Vishram & Co.—402-410, Narsi Natha Street, Bombay 9.

Hindustan Oil Mills.—Nawab Mansion, 22, Gunbow, Street, Bombay 1.

Indian Extractions Pvt. Ltd.—Nanavati Mahalaya, 18, Bruce Street, Fort, Bombay 1.

Indu Oil & Soap Co. -335, Katha Bazar, Bombay 9.

Jamnadas Laljee Oil Mills.—Champsi Bhimji Wadi, Old Anjirwadi, Mazagon, Bombay 10.

Jayant Oil Mills.—13, Sitafalwadi, Mazagon, Bombay 10.
Kanti Oil Mills.—105, Gaya Building, Musjid Bunder
Road, Bombay 1.

Kamani Oil Mills.—Framjee House, 1st Floor, 323-325, Narsi Natha Street, Bombay 9.

Kishan Prasad & Co. Ltd.—15, Ravelin Street, Fort, Bombay 1.

Lalji Poonsi & Co.—3, Chinch Bunder Road, Bombay 9.
 Laxmichand Dayabhai (Export) Co.—Sugar House, 4th
 Floor, 93-95, Kazi Syed Street, Bombay 3.

Madhavdas Amersey & Co.—Feltham House, 10, Graham Road, Bombay 1.

Malwa Vanaspati & Chemical Co. Ltd.—Mustafa Building, Sir Phirozshah Mehta Road, Fort, Bombay I.

New India Oil Mills.—387-89, Narsi Natha Street, Bombay 9.

Oilseeds Trading Co. Pvt. Ltd.—111, Mahatma Gandhi Road, Fort, Bombay 1.

Oomedchand Kashiram & Co.—Mudi Bazar, Bombay 3. Premji Haridas & Co.—Bhanushali Chamber, 169-70, Sant Tukaram Road, Bombay 9.

Raja Oil Mills.—88, Musjid Bunder Road, Bombay 9. Seth Oil Mills Pvt. Ltd.—Sadhana Rayon House, Dr.

Seth Oil Mills Pvt. Ltd.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Swastik Oil Mills Ltd.—15, Wittet Road, Ballard Estate, Bombay 1.

Tata Oil Mills Co. Ltd.—Bomva House, Bruce St., Fort, Bombay.

Vegetable Vitamin Foods Co. Ltd.—Plot No. 109, 29th Road, Sion, Bombay 22.

Vishram Khimji & Sons.—57-59, Kazi Syed Street, Bombay 3.

#### OIL SEALS

Agra Engineering Co.—40, Bank Street, Fort, Bombay 1.
B. Choudhury & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Bombay Oil Seals Co.—Opp. Sanghani Estate, Kacharpatti Road, Ghatkopar, Bombay 77.

Gem Traders.—62, New Stock Exchange Bldg., 3rd Floor, Apollo Street, Bombay 1.

Kumar Commercial Co.—Nadirshaw Sukhia St., off Cawasji Patel Street, Bombay 1.

Oil Seals Mfg. Co. (India).—Elphinstone Bldg., Nariman Road, Bombay 4.

S. M. Shah & Co.—19, Bank Street, Bombay 1.

Spare-Age (India) Pvt. Ltd.—9-B, Purushottam Bldg., Tribhuvan Road, Bombay 4.

Vinod Trading Co.—2nd Floor, 8, Kalabhuvan, 3, Mathew Road, Opera House, Bombay 4.

Western Machinery Co.—Dossa House, Gunbow Street, Bombay 1.

W. R. T. Sales & Services Pvt. Ltd.—74, Sharif House, Shaheed Bhagatsingh Road, Bombay 1.

#### OPTICAL GOODS

Montex Corporation.—Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1.

Opti-Plast Corporation.—183, J. Shankarsheth Road, Opp. Gafwadi, Bombay 4.

Royal Optical Industries.—Naigaum Cross Road, Wadala, Bombay 31.

0

## PACKAGING

Afzal Paper Box Factory.—43, Foras Road, Bombay 8.
Artytoys.—Cowasji Jahangir Colony, Tardeo, Bombay 34.
Claridge, G., & Co., Ltd.—Bhagat Singh Road, Fort, Bombay 1.

Colour Cartons Ltd.—Tiecicon House, Dr. E. Moses Road, Bombay 11.

Dwarkadas Velji Talpatriwala.—36, Issaji Street, Bombay 3.

Everest Packaging Corporation.—Agra Road, Bhandup, Bombay 78.

Jaydip & Co.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Kadri Paper Box Factory.—Mohamedali Road, Bombay 3. Leslie, E. & Co.—Botawalla Building, 7-10, Horniman Circle, Fort, Bombay 1.

Mansukhlal Jechandbhai & Co.—181/183, Samuel Street, (Khoja Galli), Bombay 9.



# SOLVE YOUR PACKING PROBLEM

Insist & Install

# "MICRO"

Corrugated Board & Box Making Machines

Contact:

## MICRO MECHANICAL WORKS

Vikhroli, Bombay-83.

Tel.: 581966. 'Gram: "MICRO", Bombay-83.

Mohamadi Fine Art Litho Works.—Mohamadi Buildings, Gunpowder Road, Mazagon, Bombay 10.

Morarji Peraj & Co., Talpatriwala.—138, Yusuf Meher Ali Road (Musjid Bunder Road), Bombay 3.

New Jack Printing Works.—Seksaria Mills Compound, Globe Mills Passage, off DeLisle Road, Bombay 13.

Paper Products Ltd.—Vaswani Mansions, 120, Dinshaw Vachha Road, Bombay 20.

Packers (India) Co.—38, Hamam Street, Fort, Bombay 1.
 Standard Paper Box Manufacturing Co.—51, Mangaldas Road, Lohar Street, Bombay 2.

Swastik Paper Bag Co.—168/80, Bhimpura, Chinch Bunder Road, Bombay 9.

## PACKART

The Instant Eye Appeal FIRST TIME IN INDIA

Blister-Skin-Cacoon and Shrink Packaging
it is

Visible, Airtight, Moisture-Proof, Bound Firmly & Prevents Replacement and Pilferage

also Manufacturers of :

Skin-Blister & Shrink Packaging Machines.

Ideal for Pharmaceutical Packaging for tablets, capsules etc.

Contact:

## PACKART

New Empire Industrial Estate, Kondivita Road, Block A/2, Off Andheri-Kurla Road, Andheri (East), Bombay 59.

#### **PACKING CASES**

Abba Gani & Co.—1-2, Victoria Road, Mazagaon, Bombay 10.

Anand Timber Traders.—170, Reay Road, Bombay 10. Artytoys.—Sir Ratan Tata Road, Tardeo, Bombay 34. Brijmohan Banwarilal.—61, Reay Road, Mazagaon, Bombay 10.

Indian Commercial Agency.—Nasir Palace, opp. Dockyard Railway Station, Mazagaon, Bombay 10.

Northern India Timber Corp.—63, Reay Road, Bombay 10. Plastic Extruders Pvt. Ltd.—204, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Podar Saw Mills.—61, Reay Road, Bombay 10. Processed Timber Products.—104, Ghodbunder Road, Chunabhatti, Santa Cruz (West), Bombay 23.

## PAINTS, ENAMELS AND VARNISHES

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3. Advance Paints Ltd.—125, N. Master Road, Bombay 1.

Asian Paints (India) Pvt. Ltd.—Nirmal, Backbay Reclamation, Bombay 20.

Atomic Paints Industry.—Sonawala Estate, Goregaon (East), Bombay 63.

Bassein Paint & Varnish Co.—D. Almeida Road, Bombay 50.

Bharat Varnish Mfg. Co.—Agra Road, Ghatkopar, Bombay 77.

Blundell Eomite Paints Ltd.—Rustom Building, 29, Veer Nariman Road, Bombay 1.

Bombay Paint & Allied Products Pvt. Ltd.—Corridor Road, Gavanpada Village, Chembur, Bombay 71. Cosmos Paints Industries.—197/205, Krishna Chowk, M. J. Market, Bombay 2.

Elphinstone Paint & Colour Mfg. Co.—50, Elphinstone Road, Bombay 13.

Goodlas Nirolac Paints Pvt. Ltd.—Forbes Building, Home Street, Fort, Bombay 1.

Jenson & Nicholson (India), Ltd.—Mackinnon Mackenzie Building, Ballard Estate, Bombay 1.

Mercury Paints & Varnishes Pvt. Ltd.—Agar Bazar, Off Cadell Road, Dadar, Bombay 28.

Noble Paint & Varnish Co. Pvt. Ltd.—Fergusson Road, Lower Parel, Bombay 13.

Plas-Fab Pvt. Ltd.—Advent, 7th Floor, 12A, General J. Bhosle Road, Bombay 20.

Saurashtra Paints Pvt. Ltd.—210, Dr. D. N. Road, Taj Bldg., Bombay 1.

Shalimar Paints Ltd.—Hamilton House, 1st Floor, Graham Road, Ballard Estate, P.O. Box No. 1516, Bombay 1.

Sigma Paints Ltd.—221, Dadabhoy Naoroji Road, Bombay 1.

Snowcem India Ltd.—Killick House, Home Street, Bombay 1.

Star Paint & Oil Industries.—Crescent Chambers, 56, Tamarind Lane, Bombay 1.

United Ink & Varnish Co.—37/40, Paramjape 'B' Scheme, Vile Parle, Bombay 57.

Universal Paint Corpn. Pvt. Ltd.—Military Road, Marol, Bombay 59.

#### PAPER BAGS MFRS.

National Paper Bag Co.—168, Bhimpura, Chinch Bunder, Bombay 9.

Rajesh Brothers.—182, Narshi Natha Street, Bombay 9.

## PAPER BOX MFRS.

Habib Paper Box Factory.—309, Ismail Bldg., Ibrahim Rahimtulla Road, Bombay 3.

Hive Enterprises.—52, Bombay Timber Market Ltd., Reay Road, Bombay 10.

Hindustan Paper Box Manufacturing Factory.—Kurla-Andheri Road, Near Safed Bridge, Bombay 72.

India Corrugating Industries Pvt. Ltd.—37-A, Parel Lane, Doctor's Compd., Chinchpokli, Bombay 12.

Jayant Paper Box Factory.—30, Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Kadri Paper Box Factory.—30, Mohamedally Road, Bombay 3.

Krishna Box Factory.—1, A-Z, Industrial Estate, Fergusson Road, Lower Parel, Bombay 13.

#### PAPER CONES

Polycone Paper Pvt. Ltd.—41/AC, Suren Road, Andheri East, Bombay 69.

Textile Paper & Timber Industries Pvt. Ltd.—Saki Vihar Road, Powai, Bombay 72.

## PAPER CONVERTORS

Baker & Co. Pvt. Ltd.—Oomrigar Building, 1st Floor, Opp. Crawford Market, Bombay 3.

Ciem Trading Co. Pvt. Ltd.—Ciem Estate, Ramachandra Land Extn., Malad, Bombay 64.

Ideal Wrappers Pvt. Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay 1.

National Cardware Manufacturing Co.—Victoria Mill Compound, Gamdevi, Bombay 7.

PAPER MERCHANTS

## BHARAT PAPER

MART



(Estd. 1932)

Bharat Bhuvan, 51, Sutar Chawl, Bombay 2.

Grams: "GLAZE."

P. O. Box 2245.

Phones { Office : 325329 Resi. : 355727.

Distributors for: Titaghur Paper Mills, India Paper Pulp Co., Bengal Paper Mill Co. Ltd., Calcutta.

## PENCIL MANUFACTURERS

Bombay Pencils Pvt. Ltd.—Kamer Bldg., Cawasji Patel Street, Fort, Bombay 1.

Hindustan Pencils Pvt. Ltd.—111/112, Himalaya House, Palton Road, Bombay 1.

## PERFUMERS & PERFUMERY RAW MATERIALS

A. Boake, Roberts & Co. (India) Ltd.—Harilela House, Mint Road, Fort, Bombay 1.

Allwyns Pvt. Ltd.—92, Ardeshir Dady Street, Vithalbhai Patel Road, Bombay 4.

Aromatic Products & Chemicals Pvt. Ltd.—42, Prospect Chambers Annexe, Dr. D. N. Road, Bombay 1.

Bombay Chemicals Pvt. Ltd.—129, Mahatma Gandhi Road, Bombay 1.

Calcutta Essence Supply Co.—Mulchand Mansion, 1st Floor, Princess Street, Bombay 2.

Eastern Aromatics.—105, Hindu Colony, 4th Road, Dadar, Bomba 14.

Ethical Products (India) Pvt. Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Bombay 1.

Foreign Scent Supply Syndicate.—Scent House, Goregaon West, Bombay 62.

Goldensun Manufacturing Co.—64-C, Bansilal Building, Girgaum Road, Bombay 4.

Industrial Perfumes Ltd.—Army & Navy Building, Mahatma Gandhi Road, Bombay 1.

Lana Floressensm.—Unit 13, Swastik Industrial Estate, 178, C. S. T. Road, Kalina, Bombay 29. Mohini Agency Perfumers.—Jakeria Building, Masjid Bunder Road, Bombay 3.

Naarden Chemical Works (India) Pvt. Ltd.—Saki Naka, Saki Vihar Road, Bombay 72.

New India Aromatics Co.—Devkaran Mansion No. 3, 45/47, Princess Street, Bombay 2.

Sunanda Aromatic Industries.—11/13, Botawala Bldg., Horniman Circle, Bombay 1.

#### PAPER MILLS

Ajanta Paper & General Products Pvt. Ltd.—Vadavali, P. O. Kalyan, Dist. Thana.

F. Pudumjee & Co. Pvt. Ltd.—60, Forbes Street, Bombay 1.

Paper Products Ltd.—Vaswani Mansions, 120, Dinshaw Vachha Road, Bombay 20.

Premier Paper Mills Ltd.—Vaswani Mansions, 120, Dinshaw Vachha Road, Bombay 20.

Rohit Pulp & Paper Mills Ltd.—Hassan Chambers, Parsee Bazar Street, Bombay 1.

# THE WEST COAST PAPER MILLS LIMITED

Registered Office:

Shreeniwas House, Waudby Road, Bombay I.

Phones: 260041/268241.

Grams: "KAGAJMILL".

Mill :

Dandeli (Dist. : North Kanara), Mysore State.

## Manufacturers of :

"Sudarshan Chakra" brand quality paper—Writing, Printing, Bond, Manila, Kraft, Map Litho and Poster.

West Coast Paper produce more than 40,000 tonnes of baper annually — Paper for India's many growing needs.

Western India Paper & Board Mills Pvt. Ltd.— Vikhroli, Bombay 83.

#### PEST CONTROL

Anglo Orient Insecticide Services.—Agakhan Building, 2nd Floor, Dalal Street, Fort, Bombay 1.

Bombay Fumigation Co. Pvt. Ltd.—93, 1st Floor, Bazar Gate Street, Bombay 1.

Chemafumes Pvt. Ltd.—Dena Bank Building, 17, Horniman Circle, Bombay 1.

Elite Corporation.—Lentin Chambers, 4th Floor, 36, Dalal Street, Bombay 1. Filco Pvt. Ltd.—Sewri Fort Road, Sewri (East), Bombay 15.

Hindustan Pest Control.—19/21, Hamam Street, Fort, Bombay 1.

Hindustan Pesticides.—25, Bank Street, Bombay 1.

Panasia Pest Control Services.—38, Cawasji Patel Street, Bombay 1.

Pest Control (India) Pvt. Ltd.—Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1.

Pestco Modern Service,—11/13, Horniman Circle, Bombay 1.

## PHARMACEUTICAL MACHINERY

Batliboi & Co. (Props.: Bhogilal Leherchand Pvt. Ltd.).— Forbes Street, Bombay 1.

Carls Aerating Machinery Co.—Diamond Building, Lohar Street, Bombay 2.

D. Parikh Engineering Works.—Nagu Sayachiwadi, New Prabhadevi Road, Bombay 25.

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort, Bombay.1.

Gladwyn & Co.—251, Dr. Dadabhoy Noaroji Road, Fort, Bombay 1.

K. Mahadev & Co. Pvt. Ltd.—Datta Mandir Road, Bhandup, Bombay 78.

Mahajan & Co.—No. 6, 1st Floor, 257, Frere Road, Bombay 1.

Raj-Der-Kar & Co.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Universal Mechanical Works Pvt. Ltd.—Opp. Worli B.D.D. Chawl No. 114, Bombay 13.

#### **PHARMACEUTICALS**

Abbott Laboratories (India) Pvt. Ltd.—Jehangir Building, Mahatma Gandhi Road, Bombay 1.

Alembic Distributors Ltd.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Alta Laboratories Pvt. Ltd.—Vissonji Park, Naigaum Cross Road, Dadar, Bombay 14.

Amex Pvt. Ltd.—National House, 6, Tulloch Road, Apollo Bunder, Bombay 1.

Amrutanjan Ltd.—P. D'Mello Road, Fort, Bombay 1.

Anglo French Drug. Co. (Eastern) Pvt. Ltd.—28, Tardeo Road, Bombay 34.

Anglo-Thai Corporation Ltd.—Ewart House, Bruce Street, Bombay 1.

Asian Drug Corporation.—Podar Chambers, S. A. Brelvi Road, Fort, Bombay 1.

Associated Capsules Pvt. Ltd.—131, Kandivli Industrial Estate, Bombay 67.

Bayer (India) Ltd.—Express Towers, Nariman Point, Bombay 1.

B. A. & Brothers (Bombay) Pvt. Ltd.—98, Princess Street, Bombay 2.

Beecham (India) Pvt. Ltd.—Beecham House, Pitamberwadi, Mahim, Bombay 16.

Bengal Chemical & Pharmaceutical Works Ltd.—502, Cadell Road, Bombay 28.

Biological Evans Ltd.—Das Chambers, 25, Dalal Street, Bombay 1.

Bock, F., & Co.—Shale Building, Bank Street, Fort, Bombay 1. Boehringer-Knoll Ltd.—United India Bldg., Sir P. M. Road, Bombay 1.

Bombay Pharmaceutical Works Pvt. Ltd.—Mathura Bhwan, 96, Dadasaheb Phalke Road, Bombay 14.

Bombay Tablet Manufacturing Co.—304, Princess Street, Bombay 2.

Boots Pure Drug Co. (India) Ltd.—17, Nicol Road, Ballard Estate, Bombay 1 BR.

Burroughs Welcome & Co. (India) Pvt. Ltd.—16, Bank Street, Bombay 1.

Cama Norton & Co.—Cama Chambers, 23, Medows Street, Fort, Bombay 1.

Capsulation Services Pvt. Ltd.—Bank of Baroda Building, Apollo Street, Bombay 1.

Castophene Manufacturing Co.—85, Dr. Annie Besant Road, Worli, Bombay 18.

Chemical, Industrial & Pharmaceutical Laboratories, Ltd. (Cipla).—289, Bellasis Road, Byculla, Bombay 8.

Chemo-Pharma Laboratories Ltd.—C. S. 215, Sewri, Bombay 15.

Chemosyn Pvt. Ltd.—38, Suren Road, Andheri (East), Bombay 58 (AS).

Ciba of India Ltd.—Royal Insurance Building, 14, J. Tata Road, Bombay 20

Comteck Laboratories.—85, Dr. Annie Besant Road, Worli, Bombay 18.

Continental Drug Co. Ltd.—135, A. Besant Road, Bombay 18.

Crookes Interfran Ltd.—254-D, Dr. Annie Besant Road, Bombay 25-DD.

Cyanamid India Ltd.—254-D, Dr. Annie Besant Road, Worli, Bombay 25-DD.

Daruwala Brothers Pvt. Ltd.—200, Princess Street, Bombay 2.

Dey's Medical Stores (Mfg.) Pvt. Ltd.—Raj Mahal Churchgate Street, Bombay 20.

Dr. Bhalchandra Laboratory.—215, Charni Road, Girgaum, Bombay 4.

Eli Lilly & Co. of India Inc.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Bombay 1.

E. Merck (India) Pvt. Ltd.—Shiv Sagar Estate, Dr. Annie Besant Road, Worli, Bombay 18.

Ethnor Ltd.—30A, Forjett Street, Spencer Building, Bombay 26.

Evans Medical Supplies (India) Ltd.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Fairdeal Corporation (Pvt.) Ltd.—Lakshmi Bldg., Sir P.M. Road, Fort, Bombay I (BR).

Franco Indian Pharmaceutical Pvt. Ltd.—20-B, Dr. E. Moses Road, Bombay 11.

Gajjar Standard Chemical Works Pvt. Ltd., Prof.— 2, Masrani Lane, Bombay 70.

Geoffrey Manners & Co. Ltd.—Magnet House, Dougall Road, Ballard Estate, Bombay I.

German Remedies Pvt. Ltd.—'A' Building, Shiv Sagar Estate, Dr. A. B. Road, Bombay 18.

Gillanders Arbuthnot & Co., Ltd.—16, Queen's Road, Bombay 20.

Glaxo Laboratories (India) Ltd.—Dr. Annie Besant Road, Worli, Bombay 18-WB.

Himalaya Drug Co.—Shah House, Shiv Sagar Estate, Dr. A. B. Road, Bombay 18.

Hoechst Pharmaceuticals Pvt. Ltd.—Dugal House, Backbay Reclamation, Bombay 20.

Indian Schering Ltd.—11/12, Off Haines Road, Worli, Bombay 18.

Indo-Pharma Pharmaceutical Works Pvt. Ltd.—Kohinoor Road, Dadar, Bombay 14.

Ipea Laboratories Pvt. Ltd.—95, Morland Road, Byculla, Bombay 8.

Johnson & Johnson of India Ltd.—30, Forjett Street, Bombay 26.

John Wyeth & Brothers Ltd.—Steelerete House, Dinshaw Wachha Road, Bombay 20.

Kemp & Co., Ltd.—88/C, Old Prabhadevi Road, Bombay 28.

Khandelwal Laboratories Pvt. Ltd.—78/87, Lad Path, Bombay 33.

Khatau Valabhdas & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Kosmek Pvt. Ltd.—Cecil House, Lansdowne Road, Bombay 1.

Laboratories Grimault Pvt. Ltd.—20, Haines Road. Bombay 11.

Little's Oriental Balm & Pharmaceuticals Ltd.—11,
Western India House, Sir P. M. Road, Bombay 1.

Lyka Labs.—Subhas Road (A), Vile Parle (East), Bombay 57.

Mac Laboratories Pvt. Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Bombay 1.

Martin & Harris (Pvt.) Ltd.—Savoy Chambers, Wallace Street, Bombay 1.

May & Baker (India) Pvt. Ltd.—Karimjee House, Sir Phirozshah Mehta Road, Fort, Bombay.

Merck Sharp & Dohme of India Ltd.—New India Centre, 17, Cooperage, Bombay 1.

Monsanto Chemicals of India Pvt. Ltd.—Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Muller & Phipps (India) Pvt. Ltd.—Queen's Mansion, Bastion Road, Bombay 1.

Napha—National Pharmaceuticals.—C. S. Track Road, Koli Kalyan, Bombay 29.

Neo-Pharma Pvt. Ltd.—Kasturi Building, J. Tata Road, Bombay 20.

Nicholas of India Ltd.—11/12, Off Haines Road, Bombay

Nymph Laboratories.—164, Tulsi Pipe Road, Bombay 13(BC).

Okasa Co. Ltd.—12, Gunbow Street, Fort, Bombay 1.

Oriental Pharmaceutical Industries, Ltd.—Kavarana Bldg., 64-66, Tulsi Pipe Road, Mahim, Bombay 16.

Parke Davis (India) Ltd.—Saki Naka, Bombay 72 AS.

Pfizer Ltd.—Express Towers, Nariman Point, Bombay 1. Pharmed Pvt. Ltd.—25/31, Rope Walk Lane, Fort, Bombay 1.

Rallis India Ltd.—Ralli House, 21, Ravelin Street, Bombay 1.

Raptakos Brett & Co., Pvt. Ltd.—47, Dr. A. Besant Road, Worli, Bombay 18.

Richardson Hindustan Ltd.—Tiecicon House, Opp. Race Course, Mahalakshmi, Bombay 11.

Roche Products Ltd.—28, Tardeo Road, Bombay 34 W.B. Sandoz Products Ltd.—Dr. A. Besant Road, Worli,

Bombay 18. Sarabhai Merck Ltd.—110, Medows Street, Bombay 1. Seamless Capsules Pvt. Ltd.—81-82, Kurla-Andheri Road,

Marol Naka, Bombay 70. Searle India Ltd.—Ralli House, 21, Ravelin Street, Bombay 1.

.

Shetty's Pharmaceuticals and Biologicals Ltd.—369, Sheikh Memon Street, Bombay 2.

Sigma Laboratories.—Plot No. 43 (South), Wadala, Bombay 31.

Smith Kline & French (India) Ltd.—25-31, Rope Walk Lane, Bombay 1.

Smith & Nephen (India) Ltd.—Poisur, Kandivli, Bombay 67.

Softsule Pvt. Ltd.—Plot No. 86-A, Bombay-Agra Road, Mulund, Bombay 80.

Standard Chemical & Pharmaceutical Co.—Old Atlas Mills, P. D'Mello Road, Bombay 10.

Tata Fison Industries Ltd.—Ralli House, 21, Ravelin Street, Bombay 1.

Teddington Chemical Factory.—Suren Road, Andheri, Bombay 69.

Unichem Laboratories.—22, Bhulabhai Desai Road, Bombay 26.

United Pharmaceutical Co.—Gokhale Building, J. Shankar Sheth Road, Bombay 4.

UP John International, Inc.—Flat No. 32, Madhuvan Co-op. Housing Society Ltd., Off Nehru Road, Santacruz (East), Bombay 55.

Vicks Products Inc.—Tiecicon House, Dr. E. Moses Road, Bombay 11.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay I.

Wander Pharmed Ltd.—Shivsagar 'A', Dr. A. Besant Road, Bombay 18.

Warner-Hindustan Ltd.—502, Veer Savarkar Marg, 2nd Floor, Near Bengal Chemicals, Worli, Bombay 25.

Zandu Pharmaceutical Works Ltd.—Gokhale Road South, Bombay 28.

## PHOTOGRAPHIC MATERIAL DEALERS

Adair Dutt & Co. (India) Ltd.—Syndicate Bank Bldg., Sir Phirozshah Mehta Road, Fort, Bombay 1. Agfa-Gevaert India Ltd.—Merchant Chamber, 41, New

Marine Lines, Bombay 20.

AMA Pvt. Ltd.—Canada Building, Dr. Dadabhoy Naoroji

Road, Fort, Bombay 1. Central Camera Co. Ltd.—195, Dr. Dadabhoy Naoroji

Road, Fort, Bombay 1. Continental Photo Stores.—243, Dr. Dadabhoy Naoroj Road, Bombay 1.

Dave Brothers.—Waterloo Mansion, Opp. Regal Cinema,

Apollo Pier, Fort, Bombay 1.

Great India Trading Co.—Beaumon Chambers, 27, N. Master Road, Fort, Bombay 1.

Forward Stores.—Mangalwadi, Girgaum, Bombay 4.

Hiro Photo Cine Stores.—23/C, Phirozshah Mehta Road, Bombay 1.

Kesho Ram Surinder Nath.—321, Commerce House, 3rd Floor, Medows Street, Bombay 1.

Kesho Ram & Sons (India) Pvt. Ltd.—314, Commerce House, Medows Street, Fort, Bombay 1.

Kodak Ltd.—Kodak House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1 BR.

Koparde & Khandke,—Empire Building, 136, D. N. Road, Bombay 1.

Koparde & Wadia.—71, Mahatma Gandhi Road, Fort, Bombay 1.

Lokamanya Photo Products.—26, Gunbow Street, Bombay No. 1.

Modern Photo Stores & Studio.—358, Lamington Road, Bombay 7.

Nayak & Co.—Harganga Mahal, Khodadad Circle, Dadar, Bombay 14.

Orwo Pvt. Ltd.—Stadium House, Veer Nariman Road, Bombay 20.

Patel India Pvt. Ltd.—190, Dr. Dadabhoy Naoroji Road. Fort, Bombay 1.

Ravel Brothers.—185, S. Gandhi Marg, Bombay 2.

## PIPES AND PIPES FITTINGS

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3.

Adamally Sons Pvt. Ltd.—277/188, Nagdevi Street,
Bombay 3.

Advance Tube Co .- 99, Nagdevi Street, Bombay 3.

Ashok Pipe Fitting Co.—34, Nagdevi Street, Bombay 3.

Asian Pipes & Hardware Co.—30, Nagdevi Street, Bombay 3.

Asian Tube Corpn.—96, Kika Street, Bombay 4.

Bharat Pipe Fitting Corpn.—67/69, Mohamedali Road, Dada Manzil, 2nd Floor, Bombay 3.

Bombay Pipe Distributors Ltd.—138, Nagdevi Street, Bombay 3.

Bombay Tube and Hardware Mart.—7-C, Musafirkhana Road, Bombay 1.

Bright Tube Corpn.—145, Chakla Street, Bombay 3.

C. A. Caliakotwala & Co. Pvt. Ltd.—125, Nagindas Master Road, Fort, Bombay 1.

C. Champaklal & Co.—205, Nagdevi Street, Bombay 3.

C. Vadilal & Co.—40, Nagdevi Cross Lane, Bombay 3.

Eastern Tube & Hardware Mart.—123, Narayan Dhuru Street, Bombay 3.

Echjay Industries Pvt. Ltd.—Kanjur Village Road, Bhandup, Bombay 78.

General Tubes Pvt. Ltd.—142/44, Nagdevi Street, Bombay 3.

Hardware Corpn. of Bombay.—102, Bhajipala Lane, 2nd Floor, Bombay 3.

Heptoola Nooruddin & Co.—152, Nagdevi Street, Bombay 3.

Hindustan Materials Pvt. Ltd.—Commissariat Bldg., 231, Dr. D. N. Road, Bombay 1.

Hindustan Tools & Engineering Co.—Pickett Cross Lane, Bombay 2.

India Pipe Fitting Co.—146, Nagdevi Street, Bombay 3.
Indian Tube Syndicate.—116, Narayan Dhuru Street, Nagdevi Street, Bombay 3.

International Tube Co.—138, Nagdevi Street, Bombay 3.

International Tube Trading Corporation.—34, Nagdevi Street, Bombay 3.

Jayantilal Gokaldas & Sons.—232, Masjid Bunder Road, Bombay 3.

Nagdevi Tool-Steel Mart.—186-88, Nagdevi Street, Bombay 3.

Nanalal Ambalal & Co.—69, Nagdevi Street, Bombay 3. National Commercial Corpn.—109-111, Nagdevi Street, Bombay 3.

Navbharat Tube Corpn.—Nensi House, 187, Sharif Devji Street, Bombay 3.

Necet Trading Corporation Pvt. Ltd.—94, Nagdevi Street, Bombay 3.

## M. J. INDUSTRIES

Quay St., 3rd Lane, Darukhana, P. O. Box 6202, BOMBAY 10.

Phone: 374465.



Manufacturers of:

Welded Tubular Poles & Large Diameter M. S. Pipes.

Importers & Stockists of:

Seamless Steel Tubes & E. R. W.
Tubes of all sizes.

## RAMESHCHANDRA SANTRAM

205, Sant Tukaram Road, Carnac Bunder, Bombay-9.

Telephone: 322214.

Stockists of:

Carbon steel seamless pipes and tubes from 15 mm to 300 mm diameter for PRESSURE, transportation of liquids and chemicals, and machining etc. Raunaq & Co.-Ist Floor, Khetan Bhavan, 198, Jamshedji Tata Road, Churchgate, Bombay 20.

Sigil (India) Services Pvt. Ltd.—381, Dr. D. N. Road, Bombay I.

Standard Pipes & Fittings Co .- 93-A, Nagdevi Street,

Bombay 3. Standard Tube Co. Pvt. Ltd.—123, Nagdevi Street, Bombay 3.

Steel Industries of Hindustan Ltd .- Magazine Street, Darukhana, Bombay 10.

Supreme Industrial Corpn.—163, Narayan Dhuru Street, Bombay 3.

Talib & Co.—Talib House, 104, Nagdevi Street, Bombay 3. Tubes (India) Corpn.—158/60, Narayan Dhuru Street, Bombay 3.

Vasant Engg. & Trading Corporation.—57, Bibijan Street, Bombay 3 BR.

Vasi Shums & Co. Pvt. Ltd.—165-67, Nagdevi Street. Bombay 3.

Zenith Steel Pipes Ltd.-Moti Mahal, 195, Churchgate Reclamation, Bombay 20 BR.

## PLASTIC MACHINERY MFRS.

Boolani Engineering Corporation.—Prabhadevi Industrial Estate, 402, Veer Savarkar Road, Bombay 25.

Brimco Plastic Machinery Corporation.—Plot No. 55, Govt. Industrial Estate, Kandivli (West), Bombay 67. J. N. Plastics.—Dayabhai Compound, S. V. Road, Malad,

Bombay 64. Monga Electronics Pvt. Ltd.—Mamlatdarwadi Road,

Malad (West), Bombay 64. Nanavati Engg. Co. Pvt. Ltd.-Merchant Chamber, 41,

New Marine Line, Bombay 20. Plastic & Machine Mfg. Co.-2-3, Interlink Industrial Estate, Jogeswari East, Bombay 60.

Radio Electrical Corporation.—Mamlatdar Wadi Road, Malad (West), Bombay 64.

Universal Mechanical Works Pvt. Ltd.-Opp. Worli B.D.D. Chawl No. 112, Bombay 13.

William Jacks & Co., India Pvt. Ltd.—Hamilton House, Graham Road, Bombay 1.

## PLASTIC MOULD MANUFACTURERS

Blow Plast Pvt. Ltd.—Bombay Agra Road, Bhandup, Bombay 78.

Mutual Steel Industries.—47, Kandivli Industrial Estate, Kandivli, Bombay 67 NB.

#### PLASTICS MFRS.

Acme Plastics Industries.—58/59, Kurla Road, J.B. Nagar, Bombay 59.

Advance Plastic Corporation.—Hirabau, 91, Tejpal Road, Vile Parle (East), Bombay 57.

Airoplast Pvt. Ltd.—Steel Chambers, 5th Floor, 10,

Cowasji Patel Street, Fort, Bombay 1. Arthangles Pvt. Ltd.—204, Dr. Dadabhai Naoroji Road, Bombay 1.

Bakelite (India) Pvt. Ltd.—Tiecicon, 18, Dr. E. Moses Road, Bombay 11.

Bhiwandiwalla Industries.—Sugar House, 93-95, Kazi Sved Street, Bombay 3.

Billion Plastics Pvt. Ltd.—101, Himalaya House, Palton Road, Bombay 1 BR.

Blow Plast Pvt. Ltd.—Blow Plast, Shastri Marg, Bombay

Bombay Plastic Corporation.—Elphinstone Building, 10, Veer Nariman Road, Bombay I.

9

Bright Brothers Pvt. Ltd.—156-A, Tardeo Road, Bombay 34.

Cipra Bakelite Co.-Rout Wadi, Moghul Lane, Mahim, Bombay 16.

Crystal Plastic Industries.-139-G(E), Agarwal Industrial Estate, Ghodbunder Road, Jogeshwari, Bombay 60.

Daylight Plastic Industries.—45, Suryodaya Mills Compound, Tardeo, Bombay 34.

Everest Plastic Industries.—Arun, Plot No. 1, 15th Floor, Narayan Dadholkar Road, Malabar Hills, Bombay 6.

Garware Plastics Pvt. Ltd.—50-A, Central Salsette Road, Bombay 57.

Great India Plastics.—I. B. Patel's Estate, Ishwarbhai Patel Road, Goregaon (East), Bombay 63.

Hindustan Plastic & Metal Mfg. Co.-40-C, Clerk Road, Jacob Circle, Bombay 11.

Hindustan Polymers Ltd.—Fergusson Road, Bombay 13. Indian Plastics Ltd.—Poisar Bridge, Bombay 67.

Iwacom Pvt. Ltd.-204, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

Jai Hind Plastic & Rubber Industries.-19, Tardeo Bridge, Near, Diana Cinema, Bombay 34.

Kosmek Plastic Manufacturing Ltd.-Old B.P.T. Road, Mahul, Chembur, Bombay 74.

Maharashtra Plastic & Wire Nail Industries Pvt. Ltd.-Kandivli Industrial Estate, Charkop, Kandivli West, Bombay 67.

Nanavati Plastics Corporation.-Hirabaug, 91, Tejpal Road, Vile Parle (East), Bombay 57.

Newpack Industries.—Lotus House, 33A, Marine Lines, Bombay 20.

Norinco Ltd.-India House, Fort, Bombay 1.

Plastic Extrusion Products.—Nathoo Estate, M. Vasanji Road, Bombay 59.

Plastic Extruders Pvt. Ltd.-204, Dr. D. N. Road, Bombay 1.

Plastifeams Pvt. Ltd.-4, Meher Building, Chowpatty, Bombay 7.

Plastipeel Chemical Corpn.—Kripalaney Estate, Saki Vihar Road, Bombay 79.

Podar Plastics Pvt. Ltd.—Podar Chambers, S. A. Brelvi Road, Fort, Bombay 1.

Polychem Ltd.-7, Jamshedji Tata Road, Churchgate Reclamation, Bombay 1.

Polymer Corporation.—Kansara Chawl, Kalbadevi Road. Bombay 2.

Polymer Products Co.—Saki Vihar Lake Road, Bombay

Polyolefine Industries Ltd.—Neville House, Currimbhoy Road, Ballard Estate, Bombay 1.

Polytex Industries.-5, Kurla Industrial Estate, Agra Road, Ghatkopar, Bombay 77.

Prest-o-Lite.-Ghodbunder Road, Opp. Bandra Bus Garage, Santa Cruz, Bombay 54.

Supreme Industries Ltd .- Old Laxmi Mills Compound, Wadala, Bombay 31.

Swastic Plastics Industries.—Chhogmal Plastic Enterprises, 63, 3rd Bhoiwada, Bombay 2.

Thermo-Plastic Industries.—78, Kalachowki Road, Lalbaug, Bombay 33.

United Plastics Corporation.—162, Tulsi Pipe Road, Lower

Parel, Bombay 13. Vinmold Pvt. Ltd.—T. K. Industrial Estate, Tokersey Jivraj Wadi, King Edward Road, Sewri, Bombay 15.

## PLASTIC PRODUCTS MFRS.

## BRIGHT BROTHERS PVT. LTD.



156-A, I. Dadajee Road, Bombay 34.

Manufacturers of:

Quality Plastic Articles for Home, Industry, Office and Gift Advertising.

Phone: 375342 (4 Lines).

Grams: "BRIBOS" (Byculla), Bombay.

Managing Director: T. W. BHOJWANI

## POLYTHENE BAGS & SHEETS

Evergreen Plastic Corporation .-- 7, Naviwadi, Dadyseth Agiary Lane, Bombay 2.

Globe Industries.—53/57, Issaji Street, Bombay 3.

Gujarat Polythene Industries.—86, Sutar Chawl, Ghia Mansion, Bombay 2.

Modern Waterproof Papers Mfg. Co.—109, Masjid Bunder Road, Bombay 3.

National Paper Bag Co.-168, Bhimpura, Chinch Bunder, Bombay 9.

New Pack Industries.—Lotus House, 33-A, New Marine Lines, Bombay 20.

Polymer Corporation .- 70, Kalbadevi Road, Bombay 2. Ravi Corporation .- 44, C.P. Tank Road, Bombay 4.

Tribhovan Nemchand & Co.-51, Bazargate Street, Fort, Bombay 1.

V. K. Engineering & Plastic Industries.—Western India House, Sir P. M. Road, Bombay 1.

Vora Brothers.-110, 3rd Floor, Chakla Street, Bombay 3.

## PRECISION TOOLS & INSTRUMENTS

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

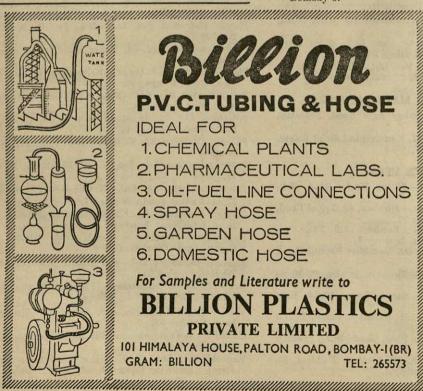
Bombay Tools & Hardware Mart.—123, Narayan Dhuru Street, Bombay 3.

Bombay Tools Supplying Agency. -50, Nagdevi Cross Lane, Bombay 3.

Emkay Traders.-32, Fatima Bldg., 7, Nagdevi Street, Bombay 3.

Hemant Tools Trading Co.-33, Bibijan Street (Barbhai Mohalla), Bombay 3.

Industrial Tool Trading Co.-101, Narayan Dhuru Street, Bombay 3.



## P.V.C.TUBING & HOSE

IDEAL FOR

1. CHEMICAL PLANTS

2. PHARMACEUTICAL LABS.

3. OIL-FUEL LINE CONNECTIONS

4. SPRAY HOSE

5. GARDEN HOSE

6. DOMESTIC HOSE

For Samples and Literature write to

# **BILLION PLASTICS**

PRIVATE LIMITED

101 HIMALAYA HOUSE, PALTON ROAD, BOMBAY-1(BR) **GRAM: BILLION** TEL: 265573



Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

Modern Machine Tools Co.—H.O. 88, Nagdevi Cross Lane,
Bombay 3.

Prafulchandra & Co.—Hararwala Bldg., Cawasji Street, Bombay 2.

Quick Engineering Co.—72/80, Nagdevi X Lane, Bombay 3.

Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3.

Universal Trading Co.—Mohamedi House, M. Azad Road, Bombay 3.

## PRINTING INK MANUFACTURERS

Bengal Chemical & Pharmaceutical Works Ltd.—Savarkar Marg, Bombay 25.

Bharat Varnish Mfg. Co.—Agra Road, Ghatkopar, Bombay 77.

Coates of India Ltd.—Chandivali Farm, Off Saki Vihar Road, Bombay 72 AS.

Gripoli Printing Inks.—10/A, Sarvodaya Mill Compound, Tardeo, Bombay 34.

Hooghly Ink Co. (Bombay) Ltd.—7, Kumpta Street, Ballard Estate, Bombay 1.

J. B. A. Printing Inks Pvt. Ltd.—Shastri Marg, Bombay-Agra Road, Bhandup, Bombay 78.

Rainbow Ink and Varnish Mfg. Co. Pvt. Ltd.—133C, Vakola, Santa Cruz (East), Bombay 55.

## PUMPS AND PUMPING SETS

Agra Engineering Co.—40, Bank Street, Fort, Bombay 1.

Akay Industries.—Shiv Sagar Estate, Block 'A',
Dr. Annie Besant Road, Worli, Bombay 18.

Arjansingh Khemchand.—1st Floor, 118, Commerce House, Medows Street, Bombay 1.

Batliboi & Co. Pvt. Ltd.—Forbes Street, P. Box 190 A, Fort, Bombay 1 BR.

Bhangar and Bros. Co. (Pvt.) Ltd.—142/48, G. B. Road, Jogeshwari, Bombay 60.

Calama Industries Pvt. Ltd.—Canada Building, Dr. D. N. Road, Bombay 1.

Consolidated Pneumatic Tool Co. Ltd.—301-302, Agra Road, Mulund, Bombay 80.

Cooper Engineering Ltd.—Construction House, Wittet Road, Ballard Estate, Fort, Bombay 1.

Crescent Agencies (Pvt.) Ltd.—Beaumon Chambers, 27/33, N. Master Road, Fort, Bombay 1.

Dodge & Seymour (India) Pvt. Ltd.—Krupanidhi, 2nd Floor, 9, Wittet Road, Ballard Estate, Bombay 1 BR. Dorr-Oliver India Ltd.—The International, 16, Queen's

Road Estate, Bombay 20.

Drewet Chowna & Co.—123, N. Master Road, Fort, Bombay 1.

Duncan Stratton & Co. Ltd.—29, Bank Street, Bombay 1.
 Edgar Hindley & Pvt. Ltd.—139, N. Master Road, Fort, Bombay 1.

Florite Engineering Corporation.—162, Tulsi Pipe Road, Opp. Phoenix Mills, Lower Parel, Bombay 13.

Garlick & Co. Pvt. Ltd.—Haines Road, Jacob Circle, Bombay 11.

Greaves Cotton & Co., Ltd.—1, Forbes Street, Bombay 1. Heatley & Gresham Ltd.—43, Forbes Street, Bombay 1. India General Engineering Co. Pvt. Ltd.—21, Forbes Street, Fort, Bombay 1.

Ingersoll-Rand (India) Pvt. Ltd.—Khanna Construction House, A. Gaffar Khan Road, Bombay 18. Investa Machine Tools & Engineering Co., Ltd.—Ewart House, Bruce Street, Bombay 1.

Jyoti Ltd.—'Advent', 12A, Foreshore Road, Opp. Sachivalaya, Bombay 1.

KSB Pumps Ltd.—173, Jamshedji Tata Road, Bombay 20.

Larsen and Toubro Ltd.—L. & T. House, Ballard Estate, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Bombay 1.

Marshall Sons & Co. (India) Ltd.—79, Dr. A. B. Road, Bombay 18.

Mather & Platt Ltd.—Hamilton House, 8, Graham Road, Ballard Estate, Bombay 1.

Mercantile and Industrial Development Co. Pvt. Ltd.— National House, 6, Tulloch Road, Apollo Bunder, Bombay 1.

New Standard Engineering Co. Ltd.—N. S. E. Estate, Goregaon (E), Bombay 63.

Nigo's Corporation.—64, Forbes Street, Fort, Bombay 1. Richardson & Cruddas, Ltd.—Byculla, Bombay 8.

Shukla-Manseta Industries Pvt. Ltd.—8, Hamam Street, Fort, Bombay 1.

Sigil (India) Services Pvt. Ltd.—Ismail Building, 381, Dr. Dadabhoy Naoroji Road, Bombay 1.

Tahira Industries (India) Pvt. Ltd.—19/21, Manohardas Street, Opp. G.P.O., Bombay 1.

Talwalker Brothers Pvt. Ltd.—(W. R.).—Lentin Chambers, Dalal Street, Fort, Bombay 1.

Tecalemit (Hind) Ltd.—602, Tardeo Main Road, Bombay 34.

Turner, Hoare & Co. Ltd.—Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.



Contact Manufacturers & Sole Agents

# WATER SUPPLY SPECIALISTS PRIVATE LTD.

Registered Office:

8, Hamam Street, Bombay I.

Phones: 252325 & 297356. Grams: "PUMPMEN"

## **BRANCHES:**

Mission Row Extension, Calcutta 1.

Phones: 234144 & 231260. Grams: "WATERFLOW".

330, Thambu Chetty Street, Madras I.

Phones: 23436 & 27225. Grams: "PUMPMEN".

4E/13, Jhandewalan Extension, New Delhi 55.

Phone: 567916. Grams: "MYERSPUMP".

2670-74, Ghasmandy Road, Secunderabad, (A.P.).
Phone: 73889. Grams: "PUMPMEN".

Vishvanath Industries.—"Niranjan", Opp. Marine Lines Station (West), Bombay 2 (BR).

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co., India Pvt. Ltd.—Bharat House, Apollo Street, Fort, Bombay 1.

## RADIO IMPORTERS, MANUFACTURERS, DEALERS AND PART SUPPLIERS

Acme Radio Corporation.—Pitle Mansion, 83, Vithalbhai Patel Road, Bombay 4.

Chopra Radio Electric Company.—Imperial Cinema Building, Bhatkamkar Marg, Bombay 4.

Cinefones.—Opp. Opera House, 3, New Queen's Road, Bombay 4.

Cosmic Radio.—3/A, Shantinagar, Vakola, Santa Cruz East, Bombay 55.

General Radio & Appliances Pvt. Ltd.—Unity House, M. Parmanand Marg, Bombay 4.

Gramophone Co. of India Ltd.—Universal Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Imanes Pvt. Ltd.—94, S. V. Road, Bombay 56 AS. Lakhanpal Pvt. Ltd.—29, M. Parmanand Marg, Bom-

Lakhanpal Pvt. Ltd.—29, M. Parmanand Marg, Bombay 4.

Lalwani Road Corporation.—11, Tribhuvan Road, Bombay 4.

Motwane (Pvt.) Ltd.—127, Mahatma Gandhi Road, Fort, Bombay 1.

Mulchandani Electrical & Radio Industries.—Sukh Sagar, Sandhurst Bridge, Hughes Road, Bombay 7.

Murphy India Ltd.—Dr. Shirodkar Road, off Hospital Avenue, Parel, Bombay 12.

National EKCO Radio & Engineering Co. Ltd.—Unity House, Parmanand Marg, Bombay-4.

Philips India Ltd.—Band Box Building, Dr. Annie Besant Road, Bombay 18.

Rhythm House Pvt. Ltd.—40, Rampart Row, Bombay 1. Teleflute Radio Agency.—Homji Street, off Sir Phirozshah Mehta Road, Fort, Bombay 1.

Telerad Pvt. Ltd.—Chandivali, Saki Vihar Rd., Bombay 72. Waco Radio Electronic Industries.—Sukh-Sagar Building, Hughes Road, Bombay 7.

#### REFRIGERATORS

American Refrigerator Co. Ltd.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Bombay 1.

Blue Star Ltd.—Kasturi Building, J. Tata Road, Bombay 20.

Blue Star Industries Ltd.—Lala Naigam Road, Colaba, Bombay 5.

Bombay Amonia Pvt. Ltd.—298, Bazar Gate Street, Bombay 7.

Bombay Refrigerator Industries Ltd.—119, Bhawani Shanker Road, Dadar, Bombay 28.

Danfoss (India) Ltd.—Kurla-Andheri Road, Behind Vijay Prints, Bombay 70.

Economy Refgn. & Engg. Co.—Kirti Building, Forbes Street, Bombay 1.

Freezall.—Kisan Mahal, Tribhuvan Road, Bombay 4.

Frigocol Engg. Co.—Zaveri House, Hughes Road, Bombay 7.

Friggsales (India).—204, Commerce House, Medows Street, Fort, Bombay 1.

Grovers (Pvt.) Ltd.—Opp. Gwalior Palace, Dr. Annie Besant Road, Worli, Bombay 18. Indo Univeral Corpn.—308-A, Commerce House, 140, Medows Street, Fort, Bombay 1.

National India Development Co. Ltd.—Forjett Street, Gowalia Tank, Bombay 26.

Refrigeration & Appliances Co. Pvt. Ltd.—Pravin Court, 95, Queen's Road, Bombay.

Refrigeration Engg. Corpn.—4-C, Express Mahal, Dadar, Bombay 14.

Refrigeration Industries.—Satguru Industrial Estate, Visheswara Nagar, Goregaon East, Bombay 63.

Sahyadri Enterprises.—20, Dr. E. Moses Road, Mahalaxmi, Bombay 11.

## ROLLING SHUTTERS

Everest Rolling Shutters Mfg. Co.—141, North Brook Street, Bombay 4.

Ganesh Engg. Works.—170, Reay Road, Bombay 10.

Hercules Rolling Shutters (Pvt.) Ltd.—104, Steel Centre, 66-F, Sant Tukaram Road, Bombay 9.

Jaykay Steel Fabricators.—Universal Founder's Compound, Mograpada, Andheri East, Bombay 69.

Navbharat Rolling Shutters & Engg. Works.—Parel Stn. Road, Bombay 12.

New Era Rolling Shutters & Engg. Works,—Sonawala Cr. Road, Goregaon (East), Bombay 63.

Rolvel Industries.—AK32, Wagle Industrial Estate,

Thana. Shaparia Dock & Steel Co., Pvt. Ltd.—Sewri Fort Road,

Bombay 15. Shubhadwar Rolling Shutters & Engineering Co.—15,

Bank Street, Fort, Bombay 1.
Standard Rolling Shutters & Engineering Works.—37,
A.B. Ambedkar Road, Bombay 12.

Star Rolling Shutter Mfg. Co.—Dr. Mitra Sen, Mahim Pura Sen, Mahim Pura Street, S. V. P. Road, Bombay 4.

Swastik Rolling Shutters & Engineering Works.— Giriraj, 1st Floor, Sant Tukaram Road, Bombay 9.

## RUBBER GOODS MANUFACTURERS

Arkon Rubber Industries.—134, Old Hanuman Lane, Kalbadevi Road, Bombay 2.

Ashok Rubber Works.—315-H, Old Kemp's Compound, New Charni Road, Bombay 4.

Associated Rubber Industries Ltd.—Union Bank Bldg., 4th Floor, Apollo Street, Bombay 1.

Basant Rubber Factory Pvt. Ltd.—Basant Court, opp. Sion Railway Station, Bombay 22.

Bedrock Tyre & Rubber Co.—16, Bruce Street, Bombay 1. Bombay Rubber Works Pvt. Ltd.—Saki Vihar Road, Next to Universal Agencies, Bombay 72.

Carona Sahu Co. Ltd.—"Fort House," 221, Dadabhoy Naoroji Road, Bombay 1.

Ceat Tyres of India Ltd.—Bhandup, Bombay 78.

Century Rubber & Cable Industries.—Sainath Indtl. Estate, Kotkar Road, Bombay 63.

Cosmos India Rubber Works Pvt. Ltd.—7, Homji Street, Fort, Bombay 1.

Dial Rubber Works.—Sonawala Cross Road, Goregaon (East), Bombay 62 NB.

Diamond Rubber Works Pvt. Ltd.—276, Nagdevi Street,

Bombay 3.

Dunlop India Ltd.—Dunlop House, Hughes Road, Bombay 7.

Everlasting Rubber Works Co. Ltd.—Air Conditioned Market Bldg., Room No. 34, Tardeo Road, Bombay 34. Firestone Tyre & Rubber Co. of India Pvt. Ltd.—Hay Bunder Road, Sewree, Bombay 15.

Haryana Rubber & Leather Industries.—38, Police Court Lane, Bombay 1.

Hind Rubber Industries Pvt. Ltd.—Suryodaya Mills Compound, Tardeo, Bombay 34 WB.

Hindustan Rubber Works.—402, Veer Savarkar Marg, Prabhadevi, Bombay 25.

India Rubber Products.—Kasturchand Mills Estate, Dadar, Bombay 28.

Industrial Linings.—Kavarana Bldg., 547, Kalbadevi Road, Bombay 2.

International Rubber & General Industries Pvt. Ltd.— 24, N. Jail Road, Bombay 9.

Jai Hind Rubber Products (Pvt.) Ltd.—391F, Grant Road, Bombay 7.

Jupiter Rubber Industries.—35, New Marine Lines, Bombay 20.

Kale Rubber Works Pvt. Ltd.—56, Bhajipala Lane, Bombay 3.

Kirti Rubber Works.—205/207, S. V. Road, Jogeshwari, Bombay 60.

Korula Rubber Co. Pvt. Ltd.—249, Worli, Bombay 18.

Lathia Rubber Mfg. Co. Pvt. Ltd.—Sakinaka, Kurla-Andheri Road, Bombay 72.

Lotus Rubber Industries.—Inside V. G. Market, Grant Road, Bombay 7.

Modak Rubber Products Pvt. Ltd.—Kondivata Village Road, Opp. Marol Bazar, Bombay 59.

Oriental Rubber Factory.—Shri Krishna Nivas, New Silk Bazar, Kalbadevi Road, Bombay 2.

Oriental Rubber Industries Pvt. Ltd.—Agra Road, Bhandup, Bombay 78.

# POLY RUBBER INDUSTRIES

Patanwalla Estate Agra Road, Ghatkopar BOMBAY-86 AS.

\*

Recoating & Fabrication of Rollers of all types, Sleeves, Lining of Tanks, Moulded and Extruded Items of all types, Anti-corrosive coating etc.

From Natural, Nitrile, Neoprene, Hypalon Rubber etc.

\*

Phones: 582246 & 582670.

Pioneer Rubber Mills (Bombay) Pvt. Ltd.—Bombay-Agra Road, Bhandup, Bombay 78.

Precision Rubber Co. (India).—Jaya Talkies Bldg., Vivekananda Road, Bombay 92.

Premier Rubber & Cable Industries.—Jamal Building, 211, Nagdevi Street, Bombay 3.

Premier Tyres Ltd.—Merchant Chambers, 41, New Marine Lines, Bombay 20.

Purohit Rubber Works.—13-D, Kurla Industrial Estate, Ghatkopar, Bombay 77.

Radiant Rubber Industries Pvt. Ltd.—Mahalaxmi Woollen Mills Compound, Bombay-11.

Rawal Rubber Works India Pvt. Ltd.—Parsi Panchayat Road, Bombay 69.

Rubber Industries (India) Pvt. Ltd.—Kurla-Andheri Road, Andheri, Bombay 69.

Rubber Parts Mfg. Co.—297, S. V. P. Road, Bombay 3. Rubber Products Pvt. Ltd.—Chincholi Naka, Swami Vivekananda Road, Malad, Bombay 64.

Rubberex Industries Pvt. Ltd.—'B' Anjirwadi, Mount Road, Mazagaon, Bombay 10.

Sahu Rubber Pvt. Ltd.—Nirmal, 241, Backbay Reclamation, Bombay 20.

Supreme Industries Ltd.—Old Laxmi Mills Compound, Wadala, Bombay 31.

Todi Industries Pyt. Ltd.—Todi Estate, Sun Mill Road, Bombay 13.

Vidyut Cable & Rubber Industries.—Kandivli, Govt. Industrial Estate, Bombay 67.

Zenith Rubber & Plastic Works.—Rangoonwala Building, 91, Mohamedali Road, Bombay 3 BR.

## SANITARY ENGINEERS

Aeco Construction Co.—91-93, Bapu Kote Street, Bombay 3.

Badruddin Hasanali & Co.—43, Gulalwadi, Kika Street, Bombay 4.

Bhathena, B. N., & Co.—100, Nagdevi Street, Bombay 3. Burjor Framji & Co.—Marine Mansion, Marine Lines, Bombay 2.

Dhamankar, W., & Co.—196A, Shankar Sheth Marg, Bombay 4.

Escofally Dawoodbhoy.—18, Doctor Street, Bombay 3.
Fidahusein Hasanali.—46, Kika Street, Gulalwadi, Bombay 4.

Jaffarjee Hassanally & Sons.—259, Nagdevi Street, Bombay 3.

M. N. Padia & Co.—70, Kika Street (Gulalwadi), Bombay 4.

Nanalal Ambalal & Co.—69, Nagdevi Street, Bombay 3.
Nanalal Pandya & Co.—Angrewada, Kalbadevi Road, Bombay 2.

New India Sanitation Co.—Central Bank Building, Bruce Street, Fort, Bombay 1.

R. Moolchand & Co.—44, Nagdevi Cross Lane, Bombay 3. Ratilal & Co.—17, Picket Cross Road, Bombay 2.

Sharman Sons.-10, Nagdevi Street, Bombay 3.

Simpson, D. R., & Co.—33, Gamdevi Road, Grant Road, Bombay 7.

Victoria Sanitary Stores.—54, 3rd Bhoiwada, Bhuleshwar, Bombay 2.

#### SANITARY WARES

Abdeally, B. M. & Co.—127, Sarang Street, Bombay 3. Advance Tube Co.—99, Nagdevi Street, Bombay 3. A. G. Karimji Calcuttawalla.—82/84, Gulalwadi, Kika Street, Bombay 4.

A. H. Shah & Co. (Pvt.) Ltd.—Nanabhai Mansion, Sir P.

M. Road, Bombay 1.

Aranha Agencies.—190, Cadell Road, Mahim, Bombay 16. Asgarali Nuruddin & Co.—95, Nagdevi Street, Bombay 3. Balsara & Co. Pvt. Ltd.-43, Medows Street, Bombay 1. Batliboi, C. J., & Co.-319, D. N. Road, Fort, Bombay 1.

Bombay Building Materials Trading Co.-73, Medows

Street, Fort, Bombay 1.

C. Bhogilal & Co.-Hanuman Building, 310, Bazargate Street, Fort, Bombay I.

Chunilal Parikh & Co.-478, M. Azad Road, Bombay 4. Clubwala & Co.—27, Hamam Street, Fort, Bombay 1. Crown Sanitary Suppliers .- 9, 1st Cooper Street, Bombay 3. Esufally Adamji & Co.-134, Nagdevi Street, Bombay 3. Gigabhai, K. & Sons Pvt. Ltd. -8-10, Green Street, Fort, Bombay 1.

Jivraj & Vrajlal.—122, Nagdevi Street, Bombay 3.

K. Chimanlal & Co.-107-A, Nagdevi Street, Bombay 3. K. Gigabhai & Sons Pvt. Ltd.-8-10, Green Street, Bombay 1.

Kashmira Ceramic Products Pvt. Ltd.—Rahimtolla House, Homji Street, Bombay 1.

Maganlal Pranlal & Sons.—105, Nagdevi Street, Bombay 3. Modern Tube & Sanitary Stores .- 48, Nagdevi Street, Bombay 3.

Nanalal Ambalal & Co. (Estd. 1917).—69, Nagdevi Street, Bombay 3.

Plas-Fab Pvt. Ltd.—Advent, 7th floor, 12A, General J. Bhosle Road, Bombay 1.

Raval & Co.-21, Bank Street, Bombay 1.

R. Molchand & Co.—44, Nagdevi Cross Lane, Bombay 3. Saify Sanitary Stores.—109, Nagdevi Street, Bombay 3. Universal Sanitary Engineering Works.—83, Mutton Street, Bombay 3.

Victoria Sanitary Stores. -54, 3rd Bhoiwada, Bhuleshwar, Bombay 2.

Vinubhai Chandulal & Co.—63, Nagdevi Street, Bombay 3.

#### SCIENTIFIC INSTRUMENTS

Adair Dutt & Co., (India) Pvt. Ltd.—Syndicate Bank Building, Sir Phirozshah Mehta Road, Fort, Bombay 1. Advance Scientific Co.-285, Thakurdwar Road, Bombay 2.

Alfa Surgical & Engineering Co.-Udyog Bhuvan, 97-AB, Old Prabhadevi Road, Bombay 28.

All India Surgical Mfg. Co.—146, Princess Street, Bombay 2.

Alliance Scientific & Chemical Co.-323/345, Sandhurst Road, Sardar Vallabhbhai Patel Road, Bombay 4.

Amit Trading Corporation.—18/22, Popat Wadi, Bhavani Bhuvan, Kalbadevi Road, Bombay 2.

Amrutlal Bhurabhai & Co.—Anand Bhuvan, Princess Street, Bombay 2.

Andhra Scientific Co. Ltd.—Janmabhoomi Chambers, Fort Street, Bombay 1.

Asha Scientific Co.-Lotlikar Mansion, 503, Girgaum Road, Bombay 2.

Ashok Scientific Works .- 6, Jaykunvar Bhuvan, Khetwadi 8th Lane, Bombay 4.

Associated Dental & Medical Supply Co .- 26, Yusuf Building, Veer Nariman Road, Bombay 1.

Associated Instrument Manufacturers (India) Pvt. Ltd.— India House, Fort Street, Bombay 1.

Central Scientific Syndicate.—475, Chira Bazar, Bombay 2. Cinexray Manufacturers.-Malabar View, Chowpatty Sea Face, Bombay 7.

Cirugia De Lux (Pvt.) Ltd.—Bombay Mutual Annexe Building, 17, Gunbow Street, Bombay 1.

Combine Scientific Traders.-Narasinha Mansion, 232, Lokamanya Tilak Marg, Carnac Road, Bombay 2.

Darbara Singh & Sons.—Khandelwal Bhuvan, 166/70. Dr. D. N. Road, Bombay 1.

Divvesh Scientific Co.-101, Sitakanj, Hindu Colony 4th Road, Dadar, Bombay 14.

Educational Scientific Stores.—110/113, Himalaya House, Palton Road, Fort, Bombay 1.

Gordhandas Desai Pvt. Ltd.—Kermani Bldg., Sir Phirozshah Mehta Road, Fort, Bombay 1.

Hardcastle, Waud & Co., Ltd .- Alice Building, D. N. Road, Fort, Bombay 1.

Hospital Equipment Co.-98, Neet-kanth, 6th Floor, Opp. Marine Line Station, Bombay 2.

Ideal Surgical Corporation.—Mansoor Bldg., 1st Floor, 98, Princess Street, Bombay 2.

Indequip Scientific Enterprises .- 75-79, Old Hanuman Lane, Bombay 2.

India Scientific Traders.—Peerbhoy Mansion, 460, Sardar Vallabhbhai Patel Road, Bombay 4.

Jayant Medical & Surgical Co.-52-58, New Hanuman Lane, Bombay 2.

Javant Scientific Industries.-Manek Building, 181, V.P. Road, Bombay 4.

Lab-Instruments.—87, Vithalbhai Patel Road, Near G. P. Tank, Bombay 4.

Laboratory Equipment Corporation.—213, Hind Rajasthan Bldg., D. Phalke Road, Dadar, Bombay 14.

Liberty Scientific Instrument Co. (Pvt.) Ltd.-Mulji Jetha Building, Ganesh Wadi, Bombay 2.

Medical Supply Corporation.—Akash Dip, French Bridge, Opp. Opera House, Bombay 4.

Modern Scientific Instrument Co.-48A/48B, Sadashiv Cross Lane, Giridhari Bhuvan, Bombay 4.

Modern Surgical & Scientific Traders.—Topiwala Mansion, 385, Sardar Patel Road, Bombay 4.

New Era Scientific Supply Co.-Dwarkadas Mansion, 457, Sardar V. P. Road, Bombay 4.

Orient Scientific & Chemical Co .- Mangaldas Building, 20, Kitchen Garden Lane, Bombay 2.

Pagoda Surgical Co.-46, Popat Wadi, Kalbadevi Road, Bombay 2.

Pioneer Equipment Co. Pvt. Ltd.—139, Nagindas Master Road, Bombay 1.

Precision Surgical Co.-Shrin Mansion, 2nd Floor, 14, Kolsa X-Lane, Pydhonie, Bombay 3.

Raj-Der-Kar & Co.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Ravindra-Heraeus Ltd.—77, Dr. A. B. Road, Worli, Bombay 18.

Rita Surgical Corporation.—75, Love Lane, Terachand Buildings, Mazagaon, Bombay 10.

Sanghavi Scientific Corpn.—82/86, Abdul Rehman Street, Bombay 3.

Sarvoday Scientific Traders.—122, Bank of Baroda Building, Palton Road, Bombay 1.

Scientific & Industrial Supplies Corporation.—17, Babu Genu Road, Bombay 2.

Scientific & Surgical Supplies Corporation.—206, Princess Street, Bombay 2.

Scientific Apparatus Mfg. Co.—Mangaldas Building, Mangaldas Road, Bombay 2.

Scientific Instrument Co., Ltd.—Navsari Building, 240, Dr. Dadabhov Naoroji Road, Fort, Bombay 1.

Standard Scientific Co. —23, Thakurdwar Road, Bombay 2. Sunshine Surgical Corporation.—24, Baroda Street, Bombay 9.

Super Scientific Co.—139, Khetwadi Back Road, Bombay 4.

Technical Instrument Supply Co. — Jaymahal Estate, 20/48, Lohar Chawl, Bombay 2.

Tempo Industrial Corporation.—Lamington Chambers, 394, Lamington Road, Bombay 4 BR.

Thermolab Equipment Co.—Guruprasad Society, Hanuman Road, Bombay 57.

Toshniwal Industries Pvt. Ltd.—198, Jamshedji Tata Road, Bombay 20.

Udaya Scientific Apparatus.—Damodar Building, 105, Princess Street, Bombay 2.

Union Scientific Syndicate.—71, Princess Street, Bombay 2.

United Surgical Corporation.—Swami Narayan Bldg., 4th Floor, 3rd Boiwada, Bombay 2.

United Surgical Traders.—59, Old Hanuman Lane, Ladwadi, Bombay 2.

Unique Scientific Syndicate.—17, New Market, 351, Sheikh Memon Street, Bombay 2.

Universal Scientific Glass Apparatus Mfgs. Indus.—381, Ram Baug, S. V. Road, Malad (West), Bombay 64.

## "Bijou" Instruments for Quality Control and Research

- (i) Double Beam Photo Electric Colorimeter.
- (ii) Constant temperature Thermostatic Bath for Universal application.
- (iii) 'Jayant Brand' Test Sieves.
- (iv) Laboratory ovens, Stirrers and many other precision instruments and laboratory glassware.

Contact:

## VANGUARD CORPORATION

39, 1st Floor, Tardeo Airconditioned Market, Bombay 34.

Phone: 379622

Venus Scientific & Surgical Co.—46, Old Hanuman Lane, Bombay 2.

Western India Surgical Co.—19/21, Lad Wadi, Old Hanuman Lane, Princess Street, Bombay 2.

Yeshwant Scientific Apparatus.—Gajanan Nivas, D-46, Gaothan Road, Chembur, Bombay 71.

Zill & Co.—128, S. Gandhi Marg, Bombay 2.

#### SEWING MACHINES

## SEWING MACHINE DEALERS



## PORTABLE & FIXED TYPES

for Jute & Polythelene H.D.P.E. Woven Sacks, 'Bag Stitching' & Filled Bag Closing.

Overlocks all types—flat locks, lock stitching—Chain Stitching—Button hole—'Side Munda'—Cutting Machines—Zig Zag and Sewing Machines for all purposes, and all spare parts thereof. Repairs undertaken.

SOLD & SERVICED BY:

# ANSON

Near Princess Street and Girgaum Road crossing, 605, Girgaum Road, BOMBAY 2.

Phones: 316310, 313176 and 317381.

Cable: "INDERJITCO", BOMBAY 2.

## SHIPPING AGENTS

Abraham, D., & Sons Pvt. Ltd.—Hague Building, Sprott Road, Ballard Estate, Fort, Bombay 1.

Chinubhai Kalidass & Bros.—19, Hamam Street, Fort, Bombay 1.

Cox & Kings (Agents) Ltd.—Lloyds Bank Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Eastern Bunkerers Ltd.—Scindia House, Dougall Road, Ballard Estate, Bombay 1.

Express Transport Pvt. Ltd.—Western India House, Sir Phirozshah Mehta Road, Bombay 1.

Finlay, James & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Bombay 1.

Forbes, Forbes Campbell & Co. Ltd.—Forbes Bldg., Home Street, Bombay 1.

Kanji Jadhavji & Co.—Musjid Bridge, Mandvi, Bombay 9.

Leslie, E. & Co.—Botawalla Bldg., 7-10, Horniman Circle, Fort, Bombay 1. Lionel Edward Ltd.—41, Nicol Road, Ballard Estate, Bombay 1.

Manilal Patel & Co.-38, Cawasji Patel Street, Bombay 1.

Marine Transport Co. Pvt. Ltd.—Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Narottam & Pereira Ltd.—Scindia House, Dougall Road, Ballard Estate, Bombay 1.

Navbharat Corporation.—15, Bombay Mutual Annexe, Gunbow Street, Bombay 1.

New Dholera Shipping & Trading Co., Ltd.—Darabshaw House, Ballard Estate, Bombay 1.

Shroff & Co.—Alice Bldg., Dr. Dadabhoy Naoroji Road, Bombay I.

Travels & Shipping Pvt. Ltd.—Darabshaw House, Dougall Road, Ballard Estate, Bombay 1.

Turner Morrison & Co. Ltd.—16, Bank Street, Bombay 1.

Volkart Brothers.—Graham Road, Ballard Estate, Bombay 1.

## SLOTTED ANGLES

Killick Slotted Angles Ltd.—Killick House, Home Street, Bombay 1.

Macneill & Barry Ltd.—Gresham Assurance House, Pherozeshah Mehta Road, Fort, Bombay 1.

Metrex Pvt. Ltd.—Sunder Bldg. Estate, Shastri Marg, Bombay 70.

Vinar Ltd.-59, Apollo Street, Fort, Bombay 1.

#### SHIPPING COMPANIES



## SCINDIA STEAM NAVIGATION CO., LTD., THE

Scindia House, Ballard Estate, Bombay 1.

Phone: 268161.

Grams: "JALANATH" (for Coastal Service).

"SAMUDRAPAR" (for Overseas Service).

Telex: 2205.

Business: Shipping.

Board of Directors :

Chairman: Krishnaraj M. D. Thackersey.

Directors: Dharamsey M. Khatau; Shantikumar N. Morarjee; Mrs. Sumati Morarjee; Jehangir P. Patel; Girdharilal Mehta; Gopaldass Tulsidass; H. M. Patel, I.C.S. (Retd.); Lalchand Hirachand; Bharat G. Doshi; P. C. Bhattacharyya (Govt. Director); N. K. Suntook.

Branch Offices: Calcutta, Karachi, Chittagong, Mangalore, Kandla and Saurashtra Ports.

## UNITED LINER AGENCIES OF INDIA (PRIVATE) LIMITED

Bombay Office: Wavell House, Graham Road, Ballard Estate, Post Box No. 1281, Bombay 1.

Telephones: 266451 (3 Lines).

Manager: W. R. Page.

Asstt. Manager: N. K. Medappa.

Assistants: V. N. Wagle, V. M. Gawad.

Head Office: Mookerji House, 17 Brabourne Road, P.O. Box No. 2141, Calcutta.

Branch : Madras.

Tel. Address: "ULINERS" all offices.

Associated Companies :-

UNITED LINER AGENCIES OF PAKISTAN LTD., Karachi, Chittagong and Khulna.

Agents for: The East Asiatic Co. Ltd., Copenhagen.

Swedish East Asia Co., Ltd., Gothenburg, Wilhelmsen, Oslo.

#### SILK MILLS

# SASSOON & ALLIANCE SILK MILL CO., LTD.

Victoria Road, Mazagaon, Bombay-10.

Regd. Office:

Podar Chambers, Sayyed Abdulla Brelvi Road, Fort, Bombay I.

Phones: Office: 254423 (8 Lines). Mills: 371380.

Manufacturers of: Quality Synthetic and Terene/ Cotton Suitings & Shirtings; Nylon Georgettes, Shirtings & Satins, Brocades, Shantungs, Taffetas etc.

Directors: Ramnath A. Podar, Chairman; Manoobhai Doongursee, Jayantilal R. Mehta, Kamalnayan J. Bajaj, Kantikumar R. Podar, D. N. Shroff, Vinaykumar R. Podar; Sagarmall D. Bhiwaniwalla.

General Manager: M. N. Bajaj, B.A., B.Com.

Secretary: J. B. Saldanha.

## SPRING MANUFACTURERS

Bombay Spring Works.—118, Dadasaheb Phalke Road, Bombay 14.

Cosmos Industries.—26, 1st Old Hanuman Cross Lane, Kalbadevi, Bombay 2.

Crescent Springs.—238, Nandanvan Industrial Estate, Opp. ACC Research, Agra Road, Thana.



# SPRINGS & FORMS

by



# IMANES

BOMBAY-56 (AS).

P. O. B. 8002, Tel. 571634.

Grams: "IMANESCOL", Bombay 56 (AS).

Milan Spring Works.—43, Khandia Street (Near Two Tanks), Bombay 8.

### STAINLESS STEEL BOLTS & NUTS

Corr Steel Industries.—Bail Bazar, Bharat Coal Compd., Old Kurla, Bombay 70.

F. B. Industries.—P.O. Box No. 3147, 132, Sarang Street, Bombay 3.

Hindustan Tools & Engineering Co.—Picket Cross Lane, Bombay 2.

Steelite Engineering Corpn.—8, Nanabhai Lane, Bombay 1.

#### STEEL FILES

Bombay Hardware Traders.—79, Narayan Dhuru Street, Bombay 3.

Jairamdas & Sons.—163, Narayan Dhuru Street, Bombay 3.

John Baker & Sons.—Killick House, Home Street,
Bombayel.

Shah & Brothers.—234, Nagdevi Street, Bombay 3. Tyebally Dawoodji.—87, Sarang Street, Bombay 3.

# STATIONERY MFRS. & DEALERS

Suppliers throughout India and overseas of:

Paper & Paper Products
Stationery Articles
CEEDA Regd. Time-Saving Files
Packaging Materials
Sales Promotion Pencils



MANUFACTURING STATIONERS
PAPER MERCHANTS & PRINTERS
PARSEE BAZAR STREET,
FORT, BOMBAY 1

Gram : "CELLOTAPE" Phone : 31 78 34

### STEEL & STEEL PRODUCTS MFRS.

Adarsh Trading Co.—18/20, Sindhi Lane, Bombay 3.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

F. Bock & Co.-Shale Building, Bank Street, Bombay 1.

Graham Firth Steel Products (India) Ltd.—16, Horniman Circle, Fort, Bombay 1.

Guest Keen, Williams Ltd.—Wakefield House, Ballard Estate, Bombay 1.

Jairamdas & Sons.—163, Narayan Dhuru Street, Bombay 2.

Kapol Steel Corpn.—Kapol, 279-B, Napoo Road, Opp. Rly. Station, Bombay 19.

Maroo (Steels) & Co.—305, Giriraj, Iron Market, Bombay 9.

New Haven Steel Ball Corpn. Pvt. Ltd.—Pandyan House, 309, Frere Road, Bombay 1.

Parrys (Eastern) Pvt. Ltd.—"Amrita", Nepean Sea Road, Bombay 6.

Standard Steels (India) Pvt. Ltd.—20, Industrial House, 51-53, Nagdevi Cross Lane, Bombay 3.

United Steel Cos. (India) Pvt. Ltd.—Orient House, Mangalore Street, Bombay 1.

# SPECIAL STEELS LIMITED

Danagura Road, Sorieli (East), Sombay 64 (NS)

Plants MARKE

Yales: 811-2452

Telegrams: "DRAWNWIRES"

#### **OUR HANUFACTURING RANGE**

With Strand Wilson. Round Cable Arment work. Thererode wires, G.L. wires, Telegraph wire, Stranded Stay wire, H.B. were thind these demanded were Compar Couract and Tin Contact were for print, clips, staples and sparklers, those tack were bound obtain were East write. Byte Accessories were Cycle Chain Rivet wire, Cycle Accessories are a serie transfer among austing armine were for sound arrange. Machine screws, Low sensite boits, Rivets and Textile accessories, and the course among austing armine for scraphene mate. The manual Desonator were and other low carbon and mild

migh Emilian Road Wiram. Migh Carbon Steel wire for cycle balls, conveyor belts and spring washers, trapezoidal more and remaining women for spring weathers. Citild and, said heading quality for high tensile bolts, tin-coated money tunning were, Language and Briefer annual tyre head wire, Health wire, Prestructed Concrete wire, Galvamond and bright matte more for contactant and margania. Spring stead were, Needle wire, Umbrells rib wire, Tiller Spring stead more, Care wire and other High Carbon steel wires.

the state of the s arm for high massing factories, thigh partiess chrostings half hearing were and other alloy wires.

Experience Brand William Planting many gives for abortrodes, springs, hospitalware, chemical and food industry, fasteners Married World Street, World Street, etc.

Bergité Errain Name: In its bilinering acalities:

street from Print bread From naming street-Co-1A, str., High Carbon steel-End. End. End., etc.

Place Surger: Could remove only. Succeive, High carbon and Mild steel strips.

#### STREET INCOMES & WINDOWS



monufactured by



15" Another Butterrape St., Soundway 2. Phins: 237740.

> Minches - Reductivital Electric S.Saltivan.

PRODUCT SECURE

#### SURGICAL INSTRUMENTS & APPLIANCES

Andlers Scientific Co., Lid. Janualhormi Chambers, Fort Street, Bruthay I.

Bombay Surgicul Co. New Charmi Road, Bombay 4.

Dr. K. Patel & Bonn - Eruchshaw Bidg., 249, Dadabbey Showiji Boad, Fort, Bombay I (BR).

Diamond Surgical Densings Works - 381, Arthur Road,

Sombay 11. Fair Deal Suggest Corporation.—106, Bank of Baroda Building, Palice Read, Bombay L.

Giothar Javer & Go.-Decksran Mansion, S. Gandhi Marg, Bombay Z.

Importal Sorgical Co. Pet. Ltd .- "India House," Opp. O.F.O., Four, Bembay I.

Sufavior Goverdanday & Co.- 58, N. Gardhi Marg.

Jaguana, J. T .- 6, Talloch Road, Apollo Bunder,

J. L. Movinou Sees & Jones (India) Ltd.—79, Dr. Annie Bount Road, Bombay 16.

Rambanial Magazial & Co.-New Hamman Lane. Bembay 2.

K. Chapman & Co., 662, Sardar Vallabhbhal Patel Bowd. Bentlery L.

Mantle Monofacturing Co. -- 72, G. Gate Road, Parel, Souther II.

M. Shak & Co.-Kanji Mainton, 511, Sardar V. P. Road. Blonchey 4.

National Start Equipment Co .- 264-265, Brown Bowell

House, Dr. A. E. Hond, Worti, Bombay 23. National Surgical Instruments Co. 301, Dr. H. Moses Road, Worll Naka, Bombay 18.

New Surgical Tracing Co. - 9, Vitaldas Road, Bombay I.

Shekara Engineering Co., Pet. Ltd.—Nidad Chuarleen, S. A. Brefet Hond, Rendary L.

Thermometers & Application Park Land. Six January House, 166, School Search Street, Fort, Heavilley L.

Universal Supply and Trading Co.-Small Smilling, 18th, Horaby Road, Fort, Bourbay L.

Venn Trading Co., 461, S. V. Patel Bond, Bombay 4.
Zench Surgical Co., 506.2C, Mangabian Bidg., Mangal-dan Bond, Bombay 2.

#### TARPAULIN

A. Koverji Karamdi Talpatriwala - Gaumakh Blussen, Opp. Marjid Railway Station, Mundet, Reachey S (RE).

Anatolji V. Kasi, ... 85 Banarpale Street, Bombay L.

Coveryl Karacohi Talpatriwala. Oyu Maqui Ballway Station, Bombay 9.

Dairy Trading Corporation. Mr. Communical Chambers, Marjid Bunder Road, Southay S.

Doma Harjon, 207, Y. Mchavally Bread, Brinday S.

Gangji Davoji & Co...54-36, Voor Vilhalder Chandar Street (D'Scuta Street), Marjid Sunder Strad, Somlay 2.

Hariram Bhavanji & Co.—156-60, Marjid Dunder Bond, Bombay 2.

Khimji Velji & Co.- 62, Donted Street, Bombay 9.

K. M. Pernawala Talpatriwala, 94, Issaji Street, Vadgadi, Bombay 3.

M. M. Thakker & Co., 65-67, Dunted Street, Storing St. Lakkmithand Covereji & Co., 207, Nami Natha Street, Fembay 9.

Mouri Pros) & Co., Talpaterwile.—126, Your Mohor alli Read (Mosjid Bunder Read), Bonday E.



# Tarpaulins

FOR SALE AND ON HIRE

Specialists in agreemention of Targasilis shade and Targasilins suggited an Sire.

Palyathylane & Paper (Lind Hamist & Cover Engl. Central, Hamist, July, Twints & "CELISES." Brand Eyelets.

Treate Enquiries Southed

MORARJI PERAJ & CO.

\*136, Phase Sunder Sout, Booker S. Phone: 322212. Grane: "TALFATE:".



# MOST TRUSTED NAME

# It is the waterproofing that counts

WIXTERFEDORNO & PROCESSING SQUAR AN EXPERT MANOS BACKED BY STYCKE TRANSPORT EXPERIENCE IN MANAGEMENTURING STATISTICS.

Handschmen

# TALPATRIWALA

EM-IV, Karl Stand Street, Booting &

Estimated Action, Spring, Street, or

Albert Pharmatheologistes salt -

Palpublishe Torpostin, Monograd Squan, Paparlishe and Athericonstinut Etunisians Suga-Hemiles Clerk, John Pation, St. S. Schoolsellem Falorie, etc. Oswal Tarpaulins, 29, Keshavji Naik Road, Bombay 9. Pramodkumar & Co.—Mulji Mistry's Bunglow, Dada-bhai Naoroji Road, Bombay 56.

Ratanshi Lalji.—56, H. Rasul Jiwa Compd., Clerk Road, Bombay 11.

Shah Shivaji Valji & Co.—184, Narshi Natha Street, Bombay 9.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1. Swastik Tarpaulins Manufacturing Co.-69-83, Dontad

Street, Bombay 9 BR. T. Lakhamshi Ladha & Co. (Talapatriwala).—298, Narsi

Natha Street, Bombay 9.

T. Maneklal Mfg. Co. Ltd.—Vaswani Mansions, Dinshaw Vachha Road, P. O. Box No. 111-A, G.P.O., Bombay 1. Zell-Ate Pvt. Ltd.—43, Forbes Street, Fort, Bombay 1.

### TEXTILE AUXILIARIES MANUFACTURERS AND DEALERS

Ahura Chemical Products Pvt. Ltd.—84, Sion Road, Bombay 22.

Altex Pvt. Ltd.-147, Mahatma Gandhi Road, Fort, Bombay 1.

Amritlal & Co. Pvt. Ltd.—11, Sprott Road, Ballard Estate, Bombay 1.

Associated Enterprises.—12-A, Mahendra Industrial Estate, Behind Sion Fort, Sion (East), Bombay 22.

Bakubhai Ambalal Pvt. Ltd.—13, Wittet Road, Bombay 1. Brady, W. H. & Co., Ltd.—12, Vir Nariman Road, Bombay I.

Ciba of India Ltd.-J. Tata Road, Bombay 20.

Durga Laboratories.—67, Bhandari Street, Vadgadi, Bombay 3.

Edgar Handley & Co. Pvt. Ltd.—139, N. Master Road, Bombay 1.

# HICO PRODUCTS PRIVATE LTD.

Mogal Lane, Mahim, Bombay 16.

# Manufacturers of:

Textile Auxiliaries, Gums, Ethylene Oxide Condensates, Emulsifiers, Quaternary Ammonium Compounds, Rot Proofing Compounds, Textile Preservatives, and auxiliary chemicals for pharmaceutical, paint, paper, leather etc. industries.

Phones: 457231.

Grams: "BATCHINOL," Bombay.

Eskay Chemical Corporation.—22-D, S. A. Brelvi Street, Bombay 1.

Firoz Trading Co., Pvt. Ltd.—Kamar Building, Cawasji Patel Street, Bombay 1.

Indokem Pvt. Ltd.—221, Dadabhoy Naoroji Road. Bombay 1.

Kirtikumar & Co.-80, Bhandari Street, Mandvi. Bombay 3.

Phiroz N. Motabhoy & Co. Pvt. Ltd.—Motabhoy Building. 146, N. Master Road, Bombay 1.

Pioneer Textilaties Corporation Ltd.-36, Dalal Street, Bombay 1.

Vijaya Textiles.—Opp. Agripada Police Station, Dr. A. Nair Road, Bombay 11 (BC).

Dr. Yajnik's Kemicolor Industries.—193-195, D. N. Road, Fort, Bombay 1.

### TEXTILE ENGINEERS AND MACHINERY MFRS. & DEALERS

Altex Pvt. Ltd.—147, Mahatma Gandhi Road, Fort. Bombay 1.

Apollo Engineering Co.—84, Apollo Street, Bombay 1. Associated Bearing Co. Ltd.—Mahatma Gandhi Memorial Building, 4th Floor, Netaji Subhas Road, Bombay I. Associated Machine & Tool Co.—130, Medows Street,

Bombay 1.

Autogenous Welding & Repair Co. Pvt. Ltd.—63, Ferguson Road, Bombay 13.

Batliboi & Co. Pvt. Ltd.—Forbes Street, Fort, Bombay-1

Bharat Electric & Engineering Corporation. -21, Dalal Street, Bombay 1.

Binani Machinery Corporation.—Andheri-Kurla Road, P.O. J.B. Nagar, Andheri (East), Bombay 59.

Bracewell Pvt. Ltd.-J. Nagree Bldg., Custom House Road, Bombay 1.

Brady & Morris Engg. Co. Ltd.—Brady House, 12/14, Veer Nariman Road, Bombay 1.

Calico Industrial Engineers.—Chakala Works, Post Bag No. 8709, Andheri, Bombay 69.

Copper Rollers Pvt. Ltd.—Gupta Mills Estate, Darukhana, Reay Road, Bombay 10.

Daver-NGM Ltd.-70, Lakshmi Insurance Building, Sir P. Mehta Road, Fort, Bombay 1.

Duncan Stratton & Co., Ltd.—29, Bank Street, Bombay 1. Famatex India Pvt. Ltd.—Manpada Road, Dombivli P.O., Dist. Thana.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Bombay 1.

Harish Engineering Works.—19, Parsi Panchayat Road, Andheri (East), Bombay 69. Hindustan Textile Engineers.—Janmabhoomi Bhavan,

Ghoga Street, Fort, Bombay 1.

Indian Card Clothing Co. Pvt. Ltd.—Saki Vihar Road, Village Tungve, Powai, Bombay 72.

Indian Textile Accessories Co.—43, Nagdevi Cross Lane,

Bombay 3. Industrial I Engineering Co.-45-47, Apollo Street,

Bombay 1. Industrial Equipment Mfg. Co.—Kasturchand Mills

Estate, Bhavani Shankar Road, Dadar, Bombay 28. Machinery Manufacturers Corporation Ltd.—Eucharistic

Congress Bldg., No. 2, 5, Convent Street, Bombay 1. Mather Greaves Ltd.—Hamilton House, Graham Road,

Ballard Estate, Bombay 1.

National Machinery Mfrs. Ltd.—P. B. No. 3, Kalwa,

New Standard Engg. Co. Ltd.—NSE Estate, Ram Mandir Road, Goregaon (East), Bombay 63.

Ormerods (India) Ltd.—Bank of Baroda Building, Apollo Street, Fort, Bombay 1.

Roberts, McLean & Co. Pvt. Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Bombay 1.

Special Steels Ltd.—Dattapara Road, Borivli (East), Bombay 62.

Standard Fabricators (I) Pvt. Ltd.—Co-operative Insurance Bldg., Sir P. Mehta Road, Fort, Bombay 1.

Standard Trading Agency Pvt. Ltd.—Seksari Chambers, N. Master Road, Bombay 1.

Star Textile Engg. Works Ltd.—Bank of Baroda Building, 12, Apollo Street, Fort, Bombay 1.

Swastik Textile Tradg. Co. Pvt. Ltd.—11, Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

Texind Corporation Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

Texspin Pvt. Ltd.—110, Medows Street, Fort, Bombay 1.Textile Engineering & Trading Co.—371, D. N. Road, Bombay 1.

Textile Supplies Syndicate (India) Pvt. Ltd.—India House, Opp. G.P.O., Bombay 1.

T. Maneklal Mfg. Co. Ltd.—Vashwani Mansion, Dinshaw V. Road, Bombay-20.

Vasant Industrial & Engineering Works.—Vasant Vijay, 470-71, Worli Road, Bombay 18.

Vithal Purshotum & Sons Pvt. Ltd.—2nd Khetwadi Lane, Bombay-4.

Voltas Ltd.—Elphinstone Building, 6, Vir Nariman Road, Bombay 1.

Zell-Ate Pvt. Ltd.—43, Forbes Street, Fort, Bombay-5. Zenith Textiles Engineering Co.—250, Ripon Road, Bombay 8.

## TEXTILE MILLS

# BOMBAY DYEING & MFG. CO. LTD.

'Neville House', Graham Road, Ballard Estate, Bombay I.

Phone: 268071. Telex No. 011-2572.

Grams: "DYEING" and "TEXTILES".

Spring Mills, Naigaum Road, Dadar, Bombay 14. Phones: 442131-2-3-4-5.

Textile Mills, Elphinstone Road, Parel, Bombay 13.
Phones: 453291-2.

Manufacturers and Exporters of: Grey, bleached, dyed, mercerised, sanforized, tebilized, hecowa finished, screen and roller printed, raised-sheeting, printed and fancy woven furnishing, mattress ticking, terry towel—plain and fancy, damask table-cloth and napkin, blanket—woven and non-woven, drill, gaberdine, tussore, poplin, printed dress fabric, manmade fibreblend suiting and shirting, flannelette, shirting and sheeting etc. and readymade KAPITAN shirts and printed sarees. Cloth width 41 to 229 cms. Trade Marks—'Kanta Chaap', 'Fan', 'Towers of Strength', 'Springtex', 'Texspring', 'Beaucale', 'Beaulyn', 'Wadrene' and 'Wadtex'.

# TIN PRINTERS & CONTAINERS MANUFACTURERS

Bombay Tin Printers.—221-223, Thakurdwar Road, Bombay 2.

Central Tin Works.—Chinchpokhli Cross Lane, Bombay 27.
Escofally Dawoodbhoy.—18, Saifee Jubilee Street,
Bombay 3.

H. A. H. Bachooally Tin Factory.—Nishan Pada Road, Dongri, Bombay 9.

Indian Metal Can Mfrs. Pvt. Ltd.—43-E, Foras Road, Bombay 8.

Kiv Trading Co.—17, 1st Parsiwada, Khetwadi, Bombay 4.

Oriental Can Manufacturing Co.—1076, Dr. E. Moses Road, Worli, Bombay 18.

Metal Printers Co.-9, Dalal Street, Bombay 1.

Pin Clip Industries.—Opp. Swan Mills Ltd.—Tokersey Jivraj Road, Bombay 15.

Quadri Tin Factory.—Shroffwadi, Mazgaon, Bombay 10. Saify Tin Factory.—23/25, Ghoga Street, Bombay 1.

Zenith Tin Works Pvt. Ltd.—Opp. Race Course, Clerk Road, Mahalaxmi, Bombay 34.

# TOOL MANUFACTURERS AND MERCHANTS



### TOOL, ALLOY AND SPECIAL STEEL MERCHANTS

Agarwal Machine & Engineering Stores.—63, Nagdevi Cross Lane, Bombay 3.

Akson Tool & Steel Co.—119, Nagdevi Street, Bombay 3. Batliboi & Co. Pvt. Ltd.—Forbes Street, P. Box 190A, Fort, Bombay 1.



BOHLER Tool & Alloy

- \* O.H.N.S. Die Steels
  - \* H.C.H.C. Steels
- \* Nickel Chromium Steels
  - \* High Speed Steels
    - \* Hot Die Steels
  - \* Carbon Tool Steels
    - \* Stainless Steels,
- Magnetic & Non-magnetic,
  - \* Silver Steels
- E.N. Specification Steels Etc. Cut to size

Contact: WORKSHOP ENGINEERING & **EQUIPMENT CO.,** 30-32, Bhajipala Street, Bombay 3. Telephone: 322270 - 323336 Telegrams: "WEARRESIST"

Bharat Engineering Stores.—113, Nagdevi Street, Bombay

Bombay Metal & Steel Syndicate.—239, Sardar V. P. Road, Bombay 4.

Bombay Steel Corporation.—140, Medows Street, Bombay

Business Combine Ltd.—"Nirmal", 3rd floor, 241, Backbay Reclamation, Nariman Point, Bombay 20.

Calcutta Iron & Steel Co., Pvt. Ltd.-68/D, Mohamedally

Road, Bombay 3. Cambay Tool Steel Co .- 92A, Memonwada Road, Dada

Mansion. Bombay 3.

Carex Trading Co.—100, 1st Patthan Street, Bombay 4. Continental Steel Corporation.—82, Abdul Rehman Street, Opp. State Bank, Bombay 3.

Dalichand & Co.-Darukhana, Mazgaon, Bombay 10. D. A. Mehra Steels Pvt. Ltd.—95, Memonwada Road, Bombay 3.

Dhiraj Steel Co.—93, Mohamedali Road, Bombay 3.

# TOOL ALLOY STEEL

FOR EX-STOCK SUPPLY

Contact:

# DHIRAJ STEEL COMPANY

93, Mohamedali Road, Bombay-3.

Tel.: 322340, 325862. Gram: 'STEELOCEAN'.

Edgar Handley & Co. Pvt. Ltd.—139, N. Master Road, Bombay 1.

Emkay Traders.—32, Fatma Bldg., 7, Nagdevi Street,

Bombay 3.

Excelsior Commercial Corporation.—116, Sarang Street

Harishanker Narbheran & Co., D. M.—94, Kansara Chawl, Kalbadevi Road, Bombay 2.

Industrial Engineering Co.-51, Apollo Street, Fort, Bombay 1.

INA Steel Co.-New Samp House, M. Gandhi Road, Ghatkopar, Bombay 77.

Jay Steel Corporation .- 26, Narayan Dhuru Street, Bombay 3.

For TOOL & ALLOY STEEL

# KWALITY TOOL STEEL CORPORATION

24, Narayan Dhuru Street, P.O. Box 3193, Bombay 3.

Phone: 322892. Grams: "KWATSCORP".

\*

High Speed Steel. High Carbon—High Chromium Steel, Oil Hardening Non-Shrinking Steel, Stainless Steel—Magnetic & Non-Magnetic, Carbon Steel, Hot Die Steel, Silver Steel and ENSpein, Tool & Alloy Steel.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. Lachhmidhar Kanshiram.—201, Masjid Bunder Road, Bombay 3.

Lily Traders.—83, Stock Exchange New Bldg., Apollo Street, Bombay 1.

Mayur Steel Co.—8/10, 2nd Carpenter Street, Bombay 4.

Mehta Nanavati & Co.—96, Narayan Dhuru Street,
Bombay 3.

Metal India.—182, Kalbadevi Road, Bombay 2.

Modern Steel Co.—125/A, Aliumer Street, Off Banian Road, Bombay 3.

New Era Steel Co.—7, Narayan Dhuru Street, Bombay 3. New India Steel & Engg. Co.—185, Sheikh Memon Street, Bombay 2.

New Steel Syndicate.—127, Nagdevi Street, Bombay 3.
Shah Engg. & Equipment Co.—145, Kasara Street,
Darukhana, Bombay 10.

Shishir & Co.-140, Medows Street, Bombay 1.

Silver Steel & Minerals.—C-3, Jeevan Jyot, 18/20, Cawasji Patel Street, Bombay 1.

Standard Steels (I) Pvt. Ltd.—20, Industrial House, Nagdevi Crosslane, Bombay 3.

Sterling Steel Syndicate.—116, Nagdevi Street, Bombay 3. Turner, Hoare & Co. Ltd.—Head Office: Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

United Steel Agency.—92, Nagdevi Street, Bombay 3.
Variety (Agents) Pvt. Ltd.—15, Cawasji Patel Street, Bombay 1.

William Jacks & Co., I. Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay I.

Workshop Engineering & Equipment Co.—30/32, Bhajipala Street, Post Box No. 3091, Bombay 3.

# **TOOL & ALLOY SPECIAL STEELS**

giving the big boost to engineering industries that they deserve! Make D. A. MEHRA your sure source of every type of steel.

Definitely at D. A. MEHRA
you find every type of
TOOL & ALLOY SPECIAL STEELS

Stainless Steels, Forging Quality Steels, Nickel Chrome Steels, High Speed Steels, Die Steels, High Carbon High Chrome Steels and all En-series Steels.

# D. A. MEHRA STEELS (PRIVATE) LIMITED

95, Memonwada Road, Habib Building, Bombay 3.

Phone: 323142. Grams: "DAMEHRA".

### TRACTORS & SPARES MFRS. & DEALERS

Agra Engineering Co.—40, Bank Street, Fort, Bombay 1. Atlas Copco (India) Pvt. Ltd.—Mahatma Gandhi Memorial Building, Netaji Subhas Road, Bombay 2.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

Cambata Industries Pvt. Ltd.—Cambata Building, 42, Maharshi Karve Road, Bombay 20.

Consolidated Pneumatic Tool Co. Ltd.—301/302, Agra Road, Mulund, Bombay 80.

Elve Business Contacts Corporation.—Elva Chambers, Green Street, Bombay 1.

Greaves Cotton & Co. Ltd.-1, Forbes Street, Fort, Bombay 1.

Hindustan Tractors Ltd.—Construction House, Ballard Estate, Bombay-1.

Honesty Trading Corporation.—Beaumon Chambers, 27/23, Medows Street, Bombay 1.

International Tractor Co. of India Ltd.—Akurli Road, Kandivli East, Bombay 67.

Larsen & Toubro Ltd.—L & T House, Ballard Estate, Bombay 1.

Machinery Sales Corporation.—Bassam House, 11, Military Square Lane, Fort, Bombay 1.

Marshall Sons & Co. (India) Ltd.—79, Dr. A. Besant Road, Bombay-18.

Standard Spares & Machinery Co.—Bouna Casa, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Voltas Ltd.—Strand House, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co., I. Pvt. Ltd.—Hamilton House, Graham Road, Ballard Estate.

#### TRANSFORMERS

Automatic Electric Pvt. Ltd.—Rectifier House, Bombay 31.

Bombay Electronics Co. Pvt. Ltd.—Ismail Building, 381, Dr. D. N. Road, Bombay 1.

Emco Transformers Ltd.—Ballard House, Mangalore Street, Ballard Estate, Bombay 1.

Hindustan Brown Boveri Ltd.—'Brown Boveri House', 264/265, Dr. Annie Besant Road, Bombay 25.

Radio Electric Pvt. Ltd.—Lamington Chambers, R. H. Bhadkamkar Road, Bombay 4.

Shamoon Electrical Works.—F/30, Dr. A Nair Road, Bombay 11.

Star Delta Electricals.—135-A, Maulana Azad Road, Bombay-8.

Vishwa Bharati Trading Co.-45, Mint Road, Bombay 1.

#### TRANSPORT COMPANIES

All India General Transport Corporation.—15, Chakla Street, Bombay 3.

All India Goods Transport Co.—163, Chakla Street, Bombay 3.

All-India Quick Transport Carriers.—85-D, Mohamedali Road, Bombay 3.

Amritsar Transport Co. Pvt. Ltd.—Hafees Chambers, Carnae Road, Bombay 1.

Andhra Goods Carriers.—17, Chakla Street, Bombay 3.

Assam Bengal Carriers.—92, Chakla Street, Bombay 3.

Assam Travels Pvt. Ltd.—33, Kolsa Street, Pydhonie,
Bombay 3.

Associated Traders & Engineers Pvt. Ltd.—Eldee Chambers, Broach Street, Bombay 9. A. V. John & Co.—'Yashodhan', Gokhale Road, Thana, Bombay 25.

Bhoruka Roadlines Pvt. Ltd.—Transport House, Poona Street, Bombay 9.

Bombay Andhra Transport Co.—113, Bhandari Street, Bombay 3.

Bombay Ex-Servicemen Transport Co-op. Society Ltd.—171, Kazi Syed Street, Bombay 3.

Bombay Berar & Madhya Pradesh Transport Co.—K-5, Sitaram Building, Paltan Road, Bombay 1.

Bombay Burhanpur Road Transport Service.—165, Kazi Syed Street, Bombay 3.

Bombay Freight Carriers.—49, Chakla Street, Bombay 9. Bombay General Freight Carriers Pvt. Ltd.—323/325, Narshi Natha Street, Bombay 9.

Bombay Goods Carriers Pvt. Ltd.—61, Sheriff Devji Street, Bombay 3.

Bombay Haryana Transport Corpn.—99, Marine Drive, 309, Niranjan, Bombay 2.

Bombay Okara Carriers.—19, Bhandari Street, Karim Building, 1st Floor, Bombay 9.

Bombay Lorry Operators Syndicate.—63/67, Akbar Manzil, Janjikar Street, Bombay 3.

Caravan Goods Carriers Pvt. Ltd.—Chheda Bhuvan, Masjid Siding Road, Bombay 3.

Carriers Corpn. of India.—Steel Chamber, Broach Street, Bombay 9.

Carryco.—Municipal Chawl No. 4, Sabu Siddiq Road, Carnac Bridge, Bombay 1.

Deccan Queen Transport Co.—257, Narsimatha Street, 240, Nishan Pada Road, Khadak, Bombay 9.

Deepak Transport Agency.—16, Dongri Street, Bombay 9. Delux Roadways.—52, Sherif Devji Street, Bombay 3.

Dhoble Transport Corporation.—5, Swastik Chambers, Near Musafirkhana, Carnac Road, Bombay 1.

Diamond Transport Co.—320, Kharek Bazar, Narshi Natha Street, Bombay 9.

Dooars Transport.—39, Chakla Street, Bombay 3.

Eastern Express Roadways.—56, Raghunath Maharaj Street, Bombay 3.

Economic Transport Organization.—Economic House, Chinch Bunder, 1st Flank Road, Bombay 9.

Everest Roadways.—98/100, First Chinchbunder Road, Bombay 9.

Famous Transport Co.—15, Dontad Street, Bombay 3.

Gills Goods Carriers Pvt. Ltd.—19, Bhandari Street, Karim Building, Bombay 3.

Globe Corporation.—10, Shree Ram Market, Vadgadi, Bombay 3.

G. Shantilal Transport Co.—3, Cement Chawl, Katha Bazar, Bombay 9.

Green's Roadways.—37, Old Bengalipura Street. Bombay \_\_3.

Gujarat Transport Service.—50, Joshi Building, Mohamadali Road, Bombay 3.

Gurudev Transport Co.—459, Madhavrao Rokade Street, Mandvi, Koliwada, Bombay 9.

Hindustan Motor Transport Co.—80-B, Mohamadali Road, Bombay 3.

Indian Roadways Corporation.—74/76, Clare Road, Nagpada Junction, Bombay 8.

Indian Transport Corporation.—32, Bhagubhai Chambers, 4th Floor, Bombay 9.

Inland Carriers (Bombay).—112, Sarang Street, Khokha Bazar, Bombay 3.

Interstate Transport Pvt. Ltd.—12/14, Dontad Street, Bombay 3.

Interways Transport.—161, Zakaria Masjid Street, Bombay 9.

Jai Hind Roadways.—324A, Ibrahim Rahimtoola Road, Pydhoni, Bombay 3.

Jaipur Golden Transport Co. Pvt. Ltd.—30, Carnac Road, Bombay 3.

Kanpur Bombay Transport Co.—36, Khadak Street, Masjid Bunder Road, Bombay 9.

Karnatak Maharashtra Transport Co.—206, Kazi Syed Street, Bombay 3.

Kerala Transport Co.—171, S. V. P. Road, Dongri, Bombay 9.

Kermani Transport Service.—7C, Dhobi Street, Opp. Zakaria Masjid, Bombay 3.

Kirti Transport Co. Pvt. Ltd.—91, Memonwada Road, Bombay 3.

Laxmi Roadlines.—216, 2nd Floor, 257, Narsi Natha Street, Bombay 9.

Laxmi Transport Co.—85, Issaji Street, Bombay 3.

Mahalaxmi Transport Pvt. Ltd.—49, A-B, Mohamedali Road, Bombay 3.

Mangatram Bros.—25, P. D'Mello Road, Bombay 9.

M. B. T .- 38, Carnac Bridge, Bombay 3.

Maharashtra Punjab Roadways.—234/236, Nishanpada Road, Khadak, Bombay 9.

Maharashtra Roadlines Co. Pvt. Ltd.—8/10, Ahmedabad Street, Bombay 9.

M. K. Mehendale Transport Pvt. Ltd.—20, Gordhandas Mansion, 1st Floor, Dr. Ambedkar Road, Parel, Bombay 12. M. P. Transport Co.—142, Kazi Syed Street, Bombay 3.
Mujawar & Co.—Shroff Bhuvan, P. D'Mello Road, Bombay 1.

Munshi & Co.—82-G, Mohamadali Road, Bombay 3.

Nagpur Golden Transport Co.—186, Samuel Street, Masjid, Bombay 9.

Nagpur Goods Transport Co.—35, Sri Ram Market, Vadgadi, Bombay 3.

National Roadways.—Steel Chambers, Broach Street, Bombay 9.

Nepal Carriers.—Steel Chambers, Broach Street, Bombay 9.

New India Transport Co.—156, Zakaria Masjid Street, Bombay 9.

New Kashmir & Oriental Transport Pvt. Ltd.—62, Dontad Street, Bombay 9.

New Rajasthan Goods Transport Co.—81-E, Mohamadali Road, Bombay 3.

New Suraj Transport Co. Pvt. Ltd.—40, Carnac Road, Bombay 3.

North India Transporters & Contractors Pvt. Ltd.—146, Dongri Street, Bombay 3.

Northern India Goods Transport Co. Pvt. Ltd.—176/178, Chakla Street, Bombay 3.

Nutan Gujarat Transport Co.—364/66, Katha Bazar, Bombay 9.

Obhan Transport Co.—Raichur Street, Bombay 9.

Oriental Carriers Pvt. Ltd.—K. Lekhraj Bldg., 2nd Floor, 20, Carnac Road, Bombay 3.

Orient Mailspeed Transport Service.—88, Chakla Street, Bombay 3.



# PRAKASH ROADLINES (P) LTD.

FLEET OWNERS AND TRANSPORT CONTRACTORS Adm. Office: Eldee Chambers,

2nd Floor, 3, Broach Street, Bombay-9., Gram: MANCHANDA

Phone:

320551

Head Office: 8/9, Kalasipalayam, New Extension, Bangalore-2.

Branches:
MADRAS, COIMBATORE,
COCHIN, KOTTAYAM,
HYDERABAD, VIJAYAWADA,
DELHI, ERNAKULAM,
TIRUPUR, TRICHUR,
TIRUPUR, TRICHUR,
CALICUT, MANGALORE,
SECUNDERABAD, GUNTUR,
RAJAHMUNDRY,
VISHAKHAPATTANAM,
KAKINADA, HINDUPUR,
MYSORE & POONA.

DAILY & DIRECT SERVICES TO: MYSORE • MADRAS KERALA & ANDHRA STATES Panchmahal Transport Co.—23-D, Mohamadali Road, Bombay 3.

Patel Roadways Pvt. Ltd.—100, Chakla Street, Bombay 3. Prabhakar Goods Transport Co.—New Byculla Market, Byculla, Bombay 27.

Radiant Kerala Roadways.—Ebrahim Manor, 110, S. V. P. Road, Dongri, Bombay 9.

Rapid Transport Co.—38, Narayan Dhuru Street, Bombay 3.

Road Transport Corpn.—44, Chakla Street, Bombay 3. Saurashtra Roadways Corpn.—89/91, Kambekar Street,

Bombay 3.

Savani Transport Pvt. Ltd.—Kasam Chambers, 163, D'Mello Road, Bombay 1.

Shantilal & Co.—364, Samuel Street, Vadgadi, Bombay 3.
Shree Laxmi Transport Co.—85, Issaji Street, Bombay 3.
Shroff Transport Service.—Sitaram Bldg., Palton Road, Bombay 1.

Southern Express Transport Co.—Flat No. 4, 1st Floor, A-1, Palton Road, Bombay 1.

Southern India Transport Service.—14, Himalaya House, Palton Road, 2nd Floor, Bombay 1.

Tatanagar Transport Corpn.—Steel Chambers, Broach Street, Bombay 9.

Transport Corporation of India Pvt. Ltd.—Transport House, 128-B, Poona Street, Bombay 9.

Varma Transport Co.—89, P. D'Mello Road, Bombay 9. Vijay Laxmi Transport Corporation.—3/5, Garidhas Street, Vadgadi, Bombay 3.

Vora Transport Co.—188, Kazi Syed Street, Bombay 3.

### TRAVEL AGENTS

Airfreight Pvt. Ltd.—Neville House, Nicol Road, Ballard Estate, Bombay 1.

American Express Co., Inc.—364, Dr. Dadabhoy Naoroji Road (P. O. Box No. 507), Bombay 1.

Asiatic Travel Service.—12, Murzban Road, Bombay 1.
Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard
Estate, Bombay 1.

Bathija Travels Pvt. Ltd.—New Silk Bazar, 49, Kalbadevi Road, Bombay 2.

Buhariwala & Sons, B. C.—5, Graham Road, 1st Floor, Ballard Estate, Bombay 1.

Chunibhai Patel & Co., M.—10/12, Dr. Wilson Street, Bombay 4.

Cox & Kings (Agents), Ltd.—Lloyds Bank Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Everett Steamship Corporation.—Fort House Annexe, 221, Dr. Dadabhoy Naoroji Road, Bombay 1.

Freight Carriers Pvt. Ltd.—43, Tamarind Lane, Fort, Bombay 1.

Jamnadas & Co., N.—16, Bank Street, Fort, Bombay 1. Jeena & Co.—10, Veer Nariman Street, Fort, Bombay 1. Kanji Jadhavji & Co.—Masjid Bridge, Mandvi, Bombay 9. Lee & Muirhead (India) Pvt. Ltd.—12, Rampart Row, Fort, Bombay 1.

Lionel Edwards Ltd.—41, Nicol Road, Ballard Estate, Bombay 1.

Mercury Travels (I) Pvt. Ltd.—Rampart Row Corner, Bombay 1.

N. Jamnadas & Co.—16, Bank Street, Fort, Bombay 1. New Globe Shipping Service Pvt. Ltd.—Khatau Bldg., Bhagat Singh Road, Bombay 1.

Orient Express Co. Pvt. Ltd.—UCO Bank Building, 359, Dadabhoy Naoroji Road, Bombay 1. Sanghi International Travels Division and Sanghi Exports.
—Office: 39A, Hughes Road, Bombay 7.

Sind Oriental Tourist Co.—44, Mint Road, Fort, Bombay 1.
Sita World Travel (I) Pvt. Ltd.—Hotel Nataraj, Netaji
Subhash Road, Bombay 20.

Sodder & Co., A. M.—11, Bank Street, Fort, Bombay 1.
Subedar & Sons.—303, Himalaya House, Palton Road, Bombay 1.

Thos. Cook & Sons (Continental & Overseas) Ltd.—Cooks Building, Dr. D. N. Road, Bombay 1.

India's Largest Travel Network

# TRADE WINGS PRIVATE LIMITED

AIR - SEA - RAIL - TOURISM

Licensed Clearing & Forwarding Agents

International Travel Agents

30/32, Rampart Row, Fort, Bombay 1.

Phones: 290707 (II Lines). Cable: "TRAVEL".

Telex: "TRAVEL" 0112494

Offices at:

Delhi, Calcutta, Poona, Madras, Bangalore, Hyderabad, Baroda, Madurai, Ranchi & Mangalore.

Managing Directors: Suman C. Sheth, V. S. Ubhayakar.

Travels & Shipping Pvt. Ltd.—Darabshaw House, Dougall Road, Ballard Estate, Bombay 1.

Vensimal Bassarmal & Bros.—Opp. Edward Cinema, Kalbadevi Road, Bombay 2.

# TYRE MANUFACTURERS AND DISTRIBUTORS

Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.

Ceat Tyres of India Ltd.— Bhandup, Bombay 78.

Dunlop Rubber Co. (India) Ltd.—Dunlop House, Hughes Road, Bombay 7.

Firestone Tyre and Rubber Co. of India Ltd.—Hay Bunder Road, Sewree, Bombay 15.

Goodyear Tyre & Rubber Co. of India Ltd.—Mani Mahal, Mathew Road, Bombay 4.

India Tyre & Rubber Co. (India) Ltd.—Spencer's Building Forist Street Co. (India) Ltd.—Spencer's

ing, Forjett Street, Cumballa Hill, Bombay 26.
Premier Tyres Ltd.—Mercant Chambers, 41, New Marine

Lines, Bombay 20.

Tyresoles Concessionaires Pvt. Ltd.—Sayani Road,
Bombay 28.

# **VACUUM FLASKS & BOTTLES**

Eagle Vacuum Bottle Mfg. Co. Pvt. Ltd.-144/146, Sheriff Devji (Chakla) Street, Bombay 3.

Victory Flask Co. Pvt. Ltd.-166, S. Devji Street, Bombay

# **VALVES & COCKS**

Agra Engineering Co.-40, Bank Street, Fort, Bombay 1. BSJ Supplying & Trading Co.-503, 'Steel Centre', Iron Market, Bombay 9.

Calcutta Iron & Steel Co., Pvt. Ltd.-68/D, Mohamedally Road, Bombay 3.

Crescent Trading Co.-48-50, Bhajipala Street, Bombay 3. C. Vadilal & Co.-40, Nagdevi Cross Lane, Bombay 3.

Fouress Business Corporation.-Mahalaxmi Chambers, 22, Bhulabhai Desai Road, Bombay 26.

Globe Engineering Corpn.—184, Samuel Street, Bombay 9. Govardhan Das P. A.-144, Nagdevi Street, Bombay 3.

Gujarat Tube & Hardware Mart. -24, Nagdevi Cross Lane. Bombay 3.

Indian Tube Syndicate.—116, Narayan Dhuru Street, Bombay 3.

Kapadwanj Trading Corpn.—61, Nagdevi Street, Bombay

Patel Brothers & Co.-41, Nagdevi Cross Lane, Bombay 3. Perfect Engg. Associates.—24, Raja Bansilal Bldg., 11, Bruce Street, Bombay 1.

#### WATER METERS

C. Champaklal & Co.-205, Nagdevi Street, Bombay 3. Crescent Trading Co.-48-50, Bhajipala Street, Bombay 3 General Tubes Pvt. Ltd.-142/44, Nagdevi Street, Bombay

Govardhan Das, P. A .- 144, Nagdevi Street, Bombay 3. Jivraj & Vrajlal.-122, Nagdevi Street, Bombay 3.

Kadakia Trading Corporation.-Sharin Castle, Bibijan Street, Bombay 3.

Kapadvanj Trading Corpn.-61, Nagdevi Street, Bombav

Kaycee Industries Ltd.-Kamani Chambers, Nicol Road, B. Estate, Bombay 1.

Richardson & Cruddas Ltd.—Byculla, Bombay 8.

R. S. Parikh & Co.-61, Nagdevi Street, Bombay 3.

Sharman Sons.-10, Nagdevi Street, Bombay 3.

Turner, Hoare & Co. Ltd.-Wavell House, 15, Graham Road, Ballard Estate, Bombay 1.

Vasi Shums & Co., Ltd.-Vasi Bldg., Nagdevi Street, Bombay 3.

Voltas Ltd.-Volkart Building, Graham Road, Ballard Estate, Bombay 1.

## **WATERPROOF PAPER MANUFACTURERS**

Kalpana Waterproof Products Mfg. Co.-65/67, Dontad Street, Bombay 9.

Modern Waterproof Papers Mfg. Co. P. Ltd.-109, Masjid Bunder Road, Bombay 3.

Neptune Waterproof Mfg. Co. - Office: Churchgate Chambers, New Marine Line Street, Bombay 1.

Packing Materials Corporation.—K. S. Gadgil Marg (East), Off Gokhale Road, Bombay 25.

Warden & Co., Pvt. Ltd.—Quay Street, Bombay 10. Waterproof Paper Mfg. Co. Pvt. Ltd.-Alice Buildings, 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

# WEIGHING MACHINES & SCALES

Accurate Weighing Machines Co.-Prabhatwadi, 139, Love Lane, Bombay 27.

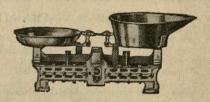
Acme Scales Corporation.—324-C, Grant Road, Bombay 7. A. M. Master & Co.—179-81, Janjikar Street, Bombay 3. Avery India.-16, Dougal Road, Ballard Estate, Bombay 1.

E. G. Kantawalla.—203, Janjikar Street, Bombay 3. Eastern Scales Ltd.—Yusuf Building, Vir Nariman Road, Bombay 20.

Ebrahim Mulla Abdultayeb.—187, Janjikar Street, Bombay 3.

Fidaally Gulamali.—163, Janjikar Street, Bombay 3. Framroze & Co., M.—Taj Bldg., 210, Dr. D. N. Road, Bombay 1.

Francis Klein & Co. (B) Pvt. Ltd.—Shale Bldg., Bank Street, Bombay 1.



- METRIC WEIGHTS
- **MEASURE**
- SCALES
- SPRING BALANCES
- **PLATFORM MACHINES &**
- LABORATORY BALANCES

Please Contact:

# HINDUSTAN SCALE CO.

186-188, Janjikar Street, Bombay 3. Tel. 323183

DIRECT IMPORTERS & STOCKISTS

Misrilal Motilal.—71, Sarang Street, Bombay 3. Saple's Scales Mfg. Co. Pvt. Ltd.—Prospect House, Raghunath Dadaji Street, Bombay 1. Y. M. Pathare & Co.—Post Box No. 1428, Bombay 1.

#### WIRE NETTING & WIRE PRODUCTS

A. A. Morbiwala & Co.-109/111, Abdul Rehman Street, Bombay 3.

Bombay Engineering & Wire Products.-24, 2nd Bhoiwada, Bombay 2.

Bombay Wirenetting Co.-24, Sabu Siddick Road, Near

Carnac Bridge, Bombay 1. Bombay Wire Ropes Ltd.—15A, Horniman Circle, Bombay 1.

Bombay Woven Wire Netting Works .-- 243, Sant Tukaram Road, Bombay 9.

Chunilal & Co.-74, Abdul Rehman Street, Bombay 3. Deepak Steel Industries.-43, Bibijan Street, Bombay 3. Dewanchand Hansraj .- 105, Naravan Dhuru Street, Bombay 3.

Eastern Stores & Trading Co. Ltd.—115A, Nagdevi Street. Great India Net Industry.—10, Bruce Street, Bombay 1. Guest, Keen, Williams, Ltd.—Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Harischandra & Co., Jaliwala.-233, Abdul Rehman Street, Bombay 3.

Hind Hardware Stores .- Pirbhov Building 1, Lohar Chawl, Bombay 2.

Hindusthan Wire Netting Co., Pvt. Ltd.-55-57, Nagdevi

Cross Lane, Bombay 3. Javant Metal Manufacturing Co.-152, Lohar Street,

Bombay 2. Joshi Industrial Corporation .- "Giriraj," Sant Tukaram Road, Carnac Bunder, Bombay 9.

Kantilal Sanghyi & Co.—Mherwan Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

M. J. Trading Co.—53-57, Narayan Dhuru Street, Bombay

Multi Weld Wire Co. Pvt. Ltd.-59, Marol-Maroshi Road, Marol, Bombay 59.

Nash & Co.-103, Abdul Rehman Street, Bombay 3. National Wire Heald Works Pvt. Ltd.-Lakshmi Building, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

Nemat Wirenetting Products.-145. Nagdevi Street. Bombay 3.

Shree Ganesh Wire Industries.—Shirin Mansion, 14, Kolsa Cross Lane, Bombay 3.

# WIRE MESHES From 4 to 300 Meshes and

# PERFORATED SHEFTS AND SIEVES

Contact:

# SIRI RAM & COMPANY

Iron, Hardware, Wirenetting, Tools, Wire Ropes, Mill Stores & Metal Merchants.

97, Narayan Dhuru Street, Bombay-3 BR

'Phone: 321927

Gram: 'ZINKSHEET'

S. Mehta & Co.—Anees Chambers, Carnac Road, Bombay

Tejpauls Pvt. Ltd.—225, Tukaram Road, Bombay 9. William Jacks & Co., I. P. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

Low Temperature SILVER

# BRAZING WELDING RODS and FLUX



Manufacturers

MAHESHWARI ENTERPRISES Bazar Sarrafa, Meerut (U.P.).



ACME SALES, opp. Khatau Mills, 923, Haines Road, Bombay 27.

# VISHWA BHARATI TRADING CO.

Bombay Office:

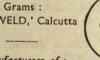
45, Mint Road, Post Box No. 1052, Bombay 1.

Phone: 266371 (All Depts.). Grams: "VIBHACO." Telex: 011-3339.

> Calcutta Office: G.P.O. Box 2628, Calcutta 1. Phone: 336680.



'ARCWELD,' Calcutta



Manufacturers of:

Argon Welding Equipments Acetylene & Oxygen Gas Generators Metals joining equipments Soldering and Brazing equipments P. V. C. Welding Sets Safetywear for Industrial Workers Elec. Shockproof Mattings Gloves, Goggles, Helmets Safety Belts, Dust Protection Respirators, Aprons, etc.

Official Distributors of:

# INDIAN OXYGEN LIMITED

For Industrial Gases, Oxy-Acetylene & Electric Arc Welding Equipment, Cutting Machines, Welding Rods, Fluxes and Electrodes.

# Supply & Hire:

Transformers, Air Compressors, Motor Generators, Diesel & Petrol Driven Portable Welding Sets, Argon Arc Sets, Water Pumps & Lighting Sets complete with Accessories.

# **EXIDE BATTERIES**

Sales & Service.

Full-Fledged Service Station for FUEL PUMPS & INJECTORS.

### Contractors to:

Mazagon Dock Ltd., Scindia Workshop Ltd., For Ship Repairing Jobs, and other leading Construction Organisations.



# ARC BRAZER

PRIVATE LTD.,

Engineers, Welding Specialists & Ship Repairers Office: 84, Foras Road, Bombay-8.

Regd Office: 20, Jackeria Bunder Road, Bombay-33.

Show-room & Works:

Tele: Office: 378898 Residence: Grams: 378441 379353 374443 372327 374438 374402

"ARCBRAZER"

### WIRE ROPES

Abdulhusein Peerbhai & Sons.—66-68-A, Peerbhai Bldg., Bhandari Street, Bombay 3.

Bombay Wire Ropes Ltd.—15A, Horniman Circle, Bombay 1.

Eastern Stores & Trading Co. Ltd.—115, Nagdevi Street, Bombay 3.

Eastern Trading & Engineering Co.—Alice Building, 3rd Floor, 339, D. N. Road, Bombay 1.

Eldee Wire Ropes Pvt. Ltd.—Eldee Chambers, 3, Broach Street, Bombay 9.

Esoofali Esmailji Karachiwalla & Co.—43-45, Bhandari Street, Koliwada, Bombay 3.

Heptoola Nooruddin & Co. (Estd. 1910).—154, Nagdevi Street, Bombay 3.

Jivraj & Vrajlal.—122, Nagdevi Street, Bombay 3.

Modi & Modi & Co.—16, Hamam Street, Fort, Bombay 1.

Mohatta & Hickel Ltd.—Mustafa Building, Sir P. M. Road.

Bombay 1.

United Wire Ropes Ltd.—5-B, Vulcan Insurance Building, Veer Nariman Road, Bombay 20.

Vasi Shums & Co. Pvt. Ltd.—Vasi Building, Nagdevi Street, Bombay 3.

William Jacks & Co., I. P. Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

## ZIP FASTENERS

Fleet Fasteners Pvt. Ltd.—"Delstar", 1st Floor, 9-9A Hughes Road, Bombay 26 (WB).

Home Industries Corporation.—64, Commercial Chambers, Masjid Bunder Road, Bombay 3.

L. R. Trading Co.—Nawsari Chambers, D. Naoroji Road, Fort, Bombay 1.

Madhu Fasterners Co.—Sanghavi Chambers, 27, Ghoga Street, Fort, Bombay 1.

Nylo Plast Industries Pvt. Ltd.—Nyloc House, 254-D2, Dr. Annie Besant Road, Prabhadevi, Bombay 25 (DD).

### NAGPUR DISTRICT

# DADABHOY'S NEW CHIRIMIRI PONRI HILL COLLIERY CO. PVT. LTD.

Regd. Office:

People's Building (Khorshed Bldg.), Sir P. M. Road, Fort, Bombay I.

Administrative Office:

Temple Road, Post Box 85, Nagpur 1.
Phones: 22630 & 23660. Grams: "PONRIHILL",
Nagpur.

Joint Managing Directors:
J. N. Daga, Miss F. Dadabhoy.

#### Directors :

P. J. Registrar, G. N. Daga, S. N. Daga, Smt. Radhadevi Daga, Lady M. P. Kharegat, Mrs. K. R. Ghandhi, S. A. Shroff.

Secretary: R. S. Saraf.

Administrative Officer: G. R. Gokhale.

# EMPRESS MILLS

Nagpur

Phones: 24311 & 24315. Grams: "EMPRESS", Nagpur

Regd. Office :

Bombay House, Bruce Street, Fort, Bombay I.

General Manager: K. B. Madan.

Production Manager : J. F. Driver.

Administrative Manager: S. R. Guha.

Personnel Manager: Dr. M. P. Srivastava.

Asst. Manager, Processing: J. M. Panthaky.

Office Superintendent: R. F. Pocha.

Sales Managers: C. S. Tungare, K. M. Medhora.

Chief Engineer: A. S. Rajamani.

Factory Manager: V. G. Dhawale.

Medical Officer: Dr. N. R. Sheshadri.

Office Assistant: A. B. Khajotia.

# POONA DISTRICT TRADES & PROFESSIONS

Accurate Engineering Co. Pvt. Ltd.—Plot No. 67, Hadapsar Industrial Estate, Poona 13.

Acme Foundry Flux Co.—Hadapsar Industrial Estate, Poona 13.

Agarwal & Co.-775, Ganesh Peth, Poona 2.

Agro Industries.—Survey No. 38/10, Pimpri Wagheri, Poona 18.

Ajanta Pharm Machinery Co.—MIDC Pimpri Industrial Estate, Poona 18.

Allied Electronics Ltd.—2435/2, East Street, Poona 1.

Amar Fabricators Pvt. Ltd.—Bombay-Poona Road, Chinchwad, Poona 19.

Anant Machinery Pvt. Ltd.—Chinchwad Ind. Area, Chinchwad, Poona 19.

Antifriction Bearing Corporation.—Lonavala, District Poona.

Architectural Aluminium Products Co., 5, Bund Garden Road, Poona 1.

Arlabs Pvt. Ltd.—Bhor, District Poona.

Associated Bearing Co. Ltd.—Chinchwad, Poona 19.

Atlas Accumac Pvt. Ltd.— Atlas House, Hadapsar Industrial Estate, Poona 13.

Atlas Automotive Components Ltd.—Chinchwad, Poona 19.

Atlas Copco. India Pvt. Ltd.—Seva Nagar, Dapodi, Poona 12.

Auto Steel Industries.— Bhosari Industrial Estate, Poona 18.

Bajaj Auto Ltd.—Bombay-Poona Road, Chinchwad, Poona 19.

Bajaj Electricals Ltd.—Kothrud, Poona 4. Bajaj Tempo Ltd.—Chinchwad, Poona 19.

Balwant Industries.—Karve Road, Poona 4.

Bharat Forge Co. Ltd.-Mundhwa, Poona 1.

Bharat Vitrifires Pvt. Ltd.—MIDC Pimpri Industrial Estate, Pimpri, Poona 18.

Bhor Industries Ltd.—Bhor, District Poona.

Bijlee Products (India) Pvt. Ltd.—Plot No. 70, Hadapsar Industrial Estate, Poona 13.

Bimba Pvt. Ltd.-Lonawala, District Poona.

Bombay Book Mfg. Co.—244, Raviwar Peth, Poona 2. Bombay Garage (Poona) Ltd.—11, Eliphinstone Road, Poona 1.

Buckau Wolf New India Engineering Works Ltd.— Pimpri, Poona 18.

Buildwell Engineering Co.—Survey No. 210/2, Pimpri, Poona 18.

Buldota & Co. - 391, Raviwar Peth, Poona 2.

Cemetile Industries.—Hadapsar Industrial Estate, Poona 13.

Central Pulp Mills Ltd.—Fergusson College Road, 1183, Shivajinagar, Poona 5.

Chelsea Chemical Laboratories.—Hadapsar Industrial Estate, Poona 13.

Chinkway Industries.—31A/33 Bombay-Poona Road, Dapodi, Poona 12.

Chitra Engineering Works.—Gowardhanwadi, Poona 9. Cooper Engineering Ltd.—658, J. M. Road, Poona-4.

CTR Manufacturing Industries Ltd.—Nagar Road, Poona

# CUMMINS DIESEL SALES & SERVICE (INDIA) LIMITED

Post Bag No. 4, Kothrud, POONA 4.

Chief of Operations: Brigadier H. N. Summanwar

Sole Distributors for Cummins products (60-380 HP engines) in India and wholly owned subsidiaries of Kirloskar Cummins Ltd., Poona.

# Areas covered by dealers fort Company-

- I. Western India Sales & Service, Bihar, Orissa, Goa
- 2. Parry & Co. Ltd., Andhra, Tamil Nadu, Mysore
- 3. Trading Engineers, Delhi, Himachal Pradesh, Punjab, Haryana
- 4. WRT Sales & Services Pvt. Ltd., Maharashtra, Gujarat (Marine Engines only).
- 5. Martin Burn Ltd., Uttar Pradesh, Madhya Pradesh, Assam.

One of the most important markets is the repower of equipment with Kirloskar Cummins Engines.

# SHIRKES

# build with quality, speed and economy

# M/s. B. G. SHIRKE & CO.

Structural Engineers & Builders, Sole Agents for Richier Weitz Tower Cranes in India and Sponsors of "Siporex India Limited", Poona.

#### Our Specialities :-

- Execution of jobs with modern techniques of CPM and PERT.
- We ourselves manufacture: Structural steel building components; marble mosaic tiles and precast concrete products; steel windows and doors; burnt bricks and ready lime mortar.
- Black topping roads and factory areas by Hot-Mix (Heating metal to 350°F).
- All India sole agency for Richier-Weitz Tower Cranes and Minato Vibro Concrete building blocks making machines.
- 5. The above assets with our drawing design and executive sections manned by experienced and qualified personnel enable us to offer A to Z "Package Deals" to our clients from designing to complete construction.

#### Our Projects :-

- I. We have floated "Siporex-India Limited" in March 1969 for the manufacture of "Siporex" reinforced lightweight autoclaved cellular concrete structural building components for floors, roofs, walls and partitions. The Company is fully financed by us and our Swedish Collaborators, the Industrial Development Bank of India with its consortium financing institutions and by the Government of Maharashtra. Production will start during 1971.
- With technical and financial collaboration of Messrs. Richiers of France we shall soon start manufacture of Tower Cranes; and of Building Blocks making machines with Messrs. Minato of France and of metal sheet grain silos and bulk handling equipments with M/s PRIVE of France.

All the Projects are approved by the Government of India.

#### Head Office:

I. Messrs. B. G. Shirke & Co.

2. Messrs. Shirkes Structurals and Ajay Tiles.

3. Siporex India Limited.

4. Other companies to be floated.

1205 Apte Road,

Poona-4 (India).

Telegrams: BUILDALL. Telephones: 56712 and 58947.

Telex: 014/280.

Answerback Code: "SIRKEPN".

### Factories:

At 72-76, Mundhwa Industrial Estate, Near Bharat Forge Company Limited, Poona-1. Telephones: 7151 and 7279. Cummins Diesel Sales & Service I. Ltd.—Karve Road, Poona 4.

Dada Fireworks Pvt. Ltd.—Dadanagar, Fursungi, Taluka Havdi, Dist. Poona.

Dai-Ichi Karkaria Pvt. Ltd.- Pimpri, Poona 18.

Cresswell & Co.-5, Elphinstone Road, Poona 1.

David Brown Greaves Ltd.— Akurdi, Chinchwad, Poona 19. Deccan Paper Box Manufacturing Co.— Bombay-Poona Road, Dapodi, Poona 12.

Decean Paper Mills Co. Ltd.—Commonwealth Buildings, Laxmi Road, Poona 2.

Devi Industries.—MIDC Pimpri Industrial Estate, Poona 18.

Dr. Beck & Co. (India) Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

Eagle Vaccum Bottle Mfg. Co. Pvt. Ltd.—Talegaon Dabhade, District Poona.

Elmecon Mfg. Co .- P. Box 93, Poona 1.

Elpro International Ltd.-Chinchwad, Poona 19.

Esco (Poona) Pvt. Ltd.-2432, East Street, Poona 1.

Faraday Capacitor Works.—Plot No. 63, Hadapsar Industrial Estate, Poona 13.

Formica India Ltd. - P.O. Box 64, Poona.

Garware Nylons Pvt. Ltd.— Bombay-Poona Road, Pimpri, Poona 18.

General Engineering Works.—21/6, Hadapsar Industrial Estate, Poona 13.

Gits Food Products (India).—20/1, Hadaspar Industrial Estate, Poona 13.

Globe Electrical Industries.— 88/A, Hadapsar Industrial Estate, Poona 13.

Globe Trading Co.—55/18, Erandvan, Chiplunkar Road, Poona 4.

Greaves Foseco Ltd.—Akurdi, Chinchwad, Poona 19.

Gujarat Metal Factory.—21, Nagesh Peth, Poona 2.

Henley Cables (India) Ltd.—Henley House, Hadapsar Industrial Estate, Poona 13.

H. Fillunger & Co. Pvt. Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

Hind Condenser Co.—209, Bombay-Poona Road, Pimpri, Poona 18.

Hindustan Precision Instruments Pvt. Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

Horstmann India Pvt. Ltd.—Nagar Road, Poona 14.

Indian Alum. Mfg. Co. Ltd.—50, Hadapsar Industrial Estate, Poona 13.

Indian Cable Industries.—Bombay-Poona Road, Pimpri, Poona 18.

Indian Card Clothing Co. Pvt. Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

Indian Hume Pipe Co. Ltd.—Hadapsar Industrial Estate, Poona 13.

Indian Oxygen Ltd.—8th Mile Stone, Bombay-Poona Road, Pimpri, Poona 18.

Indoswe Engineers Pvt. Ltd.—No. 5 Bund Garden Road, Poona 1.

Industrial Oxygen Co. Pvt. Ltd.—38-A, Vadagaon Sheri, Off Nagar Road, Poona 14.

International Computors & Tabulators India Mfg. Co. Ltd.—Ahmednagar Road, Poona 14.

Jai Hind Industries Pvt. Ltd.—Chinchwad, Poona 19. Jayahind Industries P. Ltd.—Chinchwad, Poona 19.

Jayhind Engineering Works.—1344, Shivajinagar, Poona 5.

J. B. Advani Oerlikon Electrodes Pvt. Ltd.—Akurdi, Chinchwad, Poona 19.

JG Glass Industries Pvt. Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

J. N. Marshall & Co. Pvt. Ltd.—Opp. 106th Mile Stone, Bombay-Poona Road, Pimpri, Poona 18.

Jolly Steel Industries Pvt. Ltd.—23, Bund Garden Road, Poona 1.

Kalpana Industries.—20/1, Hadapsar Industrial Estate, Poona 13.

Karanjkar Industries.—Pimpri, Poona 18.

The Kesari.-568, Narayan Peth, Poona 2.

Khinvasara Industries.—Survey No. 127, Akurdi, Chinchwad, Poona 19.

Khosla Engineering Pvt. Ltd.-Poona 3.

Khosla Plastics Pvt. Ltd.—180/2, Pimpri Wagheri, Pimpri, Poona 18.

Kirloskar Brothers Ltd.—Udyog Bhavan, Tilak Road, Poona 9.

Kirloskar Consultants Ltd.—917/19A, Shivajinagar, Fergusson College Road, Poona 4.

Kirloskar Cummins Ltd.-Kothrud, Poona 4.

Kirloskar Oil Engines Ltd.—Elphinstone Road, Kirkee, Poona 3.

### KIRLOSKAR PNEUMATIC CO. LTD.

Hadapsar Industrial Estate, Poona-13.

Offices at :

Bombay, Calcutta, Delhi, Madras, Ahmedabad, Bangalore, Bhopal, Bhubaneshwar, Cochin, Indore, Jaipur, Lucknow, Secunderabad.

Manufacturers of:

AIR POWER

Portable Rotary Compressors 3·39 to 16·99 M<sup>8</sup>/min. (120 to 600 c.f.m.), Stationary Reciprocating compressors ·05 to 28·5 M<sup>8</sup>/min. (1·7 to 1000 c.f.m.) Oil Free Carbon Ring Compressors, Accessories, After Coolers Receivers Filters Silencers etc.

Free Carbon Ring Compressors, Accessories, After Coolers, Receivers, Filters, Silencers etc. Rock Drills, Road Breakers, Vibrators, Picks, Rammers, Sump Pump for Civil Engineering; Rivetting/Chipping Hammers, Drills, Grinders for Metal Working; Drills, Grinders, Rammers for foundry work.

REFRIGERATION & AIR CONDITIONING Refrigeration Compressors, Open Type—3 to 72 Tonnes Ice Producing Capacity per 24 hours, 5 to 325 TR Air Conditioning Capacity. Semi-sealed Type—5 and 7·5 TR Air Conditioning Capacity. Stop Valves—Suitable for refrigerants and other gases. Himagauri Refrigerated Van Equipment, Rail Refrigerated Van and Rail Coach Air Conditioning Equipment; Bus Air Conditioning Equipment, I, 3, 5 and 10 Tonnes Flake Ice Machines — Turn Key Jobs in Air Conditioning and Refrigeration, Centrifugal Water Chilling Packages 150 and 500-ton models.

POWER TRANSMISSION

0

Hydraulic Torque Converters upto 800 HP., Marine Gears upto 500 HP., Transmission Gear Boxes and Final Drives upto 600 HP. for Locomotives, Earthmoving Equipment, Tractors Fork Lift Trucks, Cranes etc.

Kirti Electricals Pvt. Ltd.—Bombay-Poona Road, Survey No. 147, Akurdi, Chinchwad, Poona 19.

Kishore Pumps Pvt. Ltd.—MIDC Pimpri Industrial Estate, Poona 18.

K. K. Nag P. Ltd.—Commonwealth Bldg., Bund Garden Road, Poona 1. Kohinoor Agencies Pvt. Ltd.—Laxmi Road, Poona 2.

Kohinoor Proofing Industries.—13-14, Ganesh Nagar, Chinchwad, Poona 19.

KSB Pumps Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

Kulkarni Foundries Pvt. Ltd.—Hadapsar Industrial Estate, Poona 13.

Kulkarni Patterns Pvt. Ltd.—22/6, Hadapsar Industrial Estate, Poona 13.

Kwality Steel Products.—209, Bombay-Poona Road, Pimpri, Poona 18.

Lakaki Pvt. Ltd.-Lonavala, District Poona,

Lunar Caustic Pvt. Ltd.-Karve Road, Poona 4.

Madhav Capacitors.—MIDC, Hadapsar Industrial Estate, Poona 13.

Maharashtra Cement Industry.—433/1, Nasik Road, Poona 18.

Maharashtra Light Industries.—Plot No. 20/4, Hadapsar Industrial Estate, Poona 13.

Maharashtra Paper Co.—394, Guruwarpeth, Poona 2.

Mahindra Owen Ltd.—Plot No. 148, Rombay Poona Ros

Mahindra Owen Ltd.—Plot No. 148, Bombay-Poona Road, Pimpri, Poona 18.

Mahindra Sintered Products Ltd.—146, Bombay-Poona Road, Pimpri, Poona 18.

Mahindra Vanwijk & Visser Ltd.—Pimpri, Poona 18.

Matchwel Electricals India Ltd.—Nagar Road, Poona 14.

Mather Greaves Ltd.—Chinchwad, Poona 19.

M. D. Cycle Industries Pvt. Ltd.—Hadapsar Industrial Estate, Poona 13.

M. Nusserwanji & Co.—94, Mahatma Gandhi Road, Poona 1.

More Stampings & Allied Industries.—B-5, Hadapsar Industrial Estate, Poona 13.

Morris Electronics Pvt. Ltd.—Bhosan Industrial Estate, Poona 26.

Mungi Electricals,—Plot Nos. E-10, 11, 12, Technician's Block, Bhosari, Poona 18.

Naik Weaving Mills.—34/13, Erandavana, Karve Road, Poona 4.

National Electrical Industries.—Nagar Road, Poona 14. Navalakha Agencies.—1379, Bhawanipeth, Poona 2.

New Poona Industries.—Pimpri, Poona 18.

Ogale Glass Works Ltd.—Pimpri, Poona 18.

Orbey Steel & Iron Industries.—Plot No. 37, Hadapsar Industrial Estate, Poona 13.

Packwell Corporation.—8/31, A Bombay-Poona Road, Dapodi, Poona 12.

Paper & Pulp Conversations Ltd.—376, Shukrawarpeth, Poona 2.

Paranipe Engg. & Fdy. Co. P. Ltd.—E-14/15, Bhosari Indl. Area, Poona 26.

Pest Control (India) Pvt. Ltd.—Attar Bldg., Bombay-Poona Road, Chinchwad, Poona 19.

Philips India Ltd.—Loni Kalbhor, District Poona.

Pillars Pvt. Ltd.-J. M. Road, Poona 4.

Pimpri Surgical Dressing Co.-Pimpri, Poona 18.

Polychem Ltd.—Nira, District Poona.

Poona Bottling Co. Pvt. Ltd.—401/1, & 411/2, Bombay-Poona Road, Poona 12.

Poona Electro Engineering Works.—Gult-kdi, Poona 9. Poona Food Canning Pvt. Ltd.—Satara Road, Poona 9.

Poona Industries.—Bombay-Poona Road, Pimpri, Poona 18.

Prasanna Industries.—Plot No. 21/2, Hadapsar Industrial Estate, Poona 13.

Pratibha Advertising.— "Cosmos", Prabhat Rd., Poona 4. Pratiba Plastic Industries.—610, Raviwarpeth, Poona 2. Precision Engineering Works.—Plot No. 17-A, Hadapsar Industrial Estate, Poona 13.

Precision Industries.—Plot No. 1A-77, H. Block, MIDC Industrial Area, Pimpri, Poona 18.

Protos Engineering Co. Pvt. Ltd.—Chinchwad, Poona 19. Pudumjee Pulp & Paper Mills Ltd.—Thergaon, Chinchwad, Poona 19.

Pyrotenax (I) Ltd.—Kirkee, Poona 3.

Raja Bahadur Motilal Poona Mills Ltd.-Engineering Division, Post Box 50, Poona.

Ranjit Industries.-469, Phugewadi, Bombay-Poona Road, Dapodi, Poona 12.

Rank Gearcrafts Pvt. Ltd.—35, Erandvana, Karve Road, Poona 4.

Rathi Engineering Works.—27, Shankarshet Rd., Poona 9. Refrigeration & Appliances Co. Pvt. Ltd.—Plot No. 152, Pimpri, Poona 18.

Rescon Mfg. Co. Pvt. Ltd.—Karve Road, Poona 4.

Roplas (I) Ltd.—Pimpri, Poona 18.

R. S. Industries.—Nagar Road, Poona 14.

Ruston & Hornsby (I) Ltd.—Chinchwad, Poona 19.

Sahvadri Dyestuffs & Chemicals Pvt. Ltd.-S. N. 117, Parvati Vithalwadi Road, Poona 9.

Sahvadri Steel Products.—Kasarwadi, Bombay-Poona Road, Poona 18.

Sandvik Asia Ltd.—Seva Nagar, Bombay-Poona Road, Dapodi, Poona 12.

Sangam Metal & Engineering Ltd.—Gowardhanwadi, Poona 9.

Sathe Biscuit & Chocolate Co. Ltd.—Poona 2.

Seemco Ball Bearing Corporation.-4, East Street, Cawas Villa, Camp, Poona 1.

Serson Industries Pvt. Ltd.—Pimpri, Poona 18.

Shaw Wallace & Co. Ltd.—Hadapsar Industrial Estate, Poona 13.

Shree Dyes & Chemicals Pvt. Ltd.—Karve Road, Poona 4. Shrikant Engineering Corpn.-41, Industrial Estate, Gultekdi, Poona 9.

Shrikrishna Engineering Works.—Karve Road, Poona 4. Simmonds Marshall Ltd.—Opp. 106th Mile Stone, Bombay Poona Road, Pimpri, Poona 18.

SEL Engineering Pvt. Ltd.—Plot No. 52-B, Hadapsar Industrial Estate, Poona 13.

Soumachine Corporation.—Industrial Estate, Gultekdi. Poona 9.

Southern Machine Industries. - Industrial Estate, Gultekdi,

Poona 9. Spirax Marshall Ltd.-Opp. 106th Mile Stone, Bombay-Poona Road, Pimpri, Poona 18.

Standard Fabricators.—Plot No. 17-B, Hadapsar Industrial Estate, Poona 13.

Sudarshan Chemical Industries Pvt. Ltd.—162, Dr. Ambedkar Road, Poona 1.

Sujanil Chemco Industries.—Chinchwad, Poona 19.

Sunrise Manures & Chemicals.-813-14, Bhawanipeth, Poona 2.

Suranjana Industries. -36, Industrial Estate, Gultekdi, Poona 9.

Suresh Traders.—Bharat Industrial Bank Bldg., 92/2B, Laxmi Road, Poona 2.

Swastik Laboratory & Industrial Chemicals Pvt. Ltd .-176/7, Sadashiv Peth, Poona 9.

Swastik Engineers.—Satara Road, Poona 9.

Swastik Rubber Products Ltd.—Swastik House, Kirkee. Poona 3.

Synthetic Dyestuff Industries.—Hadapsar Industrial Estate, Poona 13.

Tarkar Products.-Plot Hadapsar Industrial Estate. Poona 13.

Tata Engineering & Locomotive Co. Ltd.—Chinchwad, Poona 19.

Thermolab Glass Products Ltd.—Bombay-Poona Road, Pimpri, Poona 18.

T. K. Steel Industries P. Ltd.—Plot No. 7, Block D-1,

M.I.D.C. Ind. Estate, Chinchwad, Poona 19. Tom & Bay (Advertising) Pvt. Ltd.—Regd. Office:

Joshi Estates, 658, J. M. Road, Poona 4. Traub India Pvt. Ltd.—Survey No. 152/53, Bombay-

Poona Road, Pimpri, Poona 18. Twinkle Paints & Varnish Co.-No. 785, Bombay-Poona

Road, Chinchwad, Poona 19. Union Steel Industries.—Plot No. 23/1 & 23/6, Hadapsar

Industrial Estate, Poona 13.

United Metal Industries.—MIDC, Bhosari Industrial Estate, Poona 18.

Unmesh Industries.—Chinchwad, Poona 19.

Vacuum Plant & Instrument Mfg. Co. Pvt. Ltd.—48A, Munchwa, Poona 1.

Vanaz Engineers Pvt. Ltd.—Unit No. 2, Survey No. 85/1, Kothrud, Paud Road, Poona 4.

Varsha Industries. -32/1, Karve Road, Erandwana,

Vasant Shivaji & Co.—Shankarshet Road, Poona 9. Vikrant Engineering Works.—Karve Road, Poona 4.

# HOUSE OF WEIKFIELD

Manufacturers of:

World of exciting food delicacies and allied products

- \* Custard Powder \* Corn Flour
- \* Variety Custard Powder
- \* Blancmange \* Jelly Crystals
- Baking Powder \* Concentrated Vanilla Powder flavour
- \* Algofoma (Ice cream Emulsifier)
- \* Freeze \* Drinking Chocolate Powder
- \* Arrowroot Powder \* Ready Ice Cream Milk Powder
- \* Weptin \* Drinking Malt Mix
- \* Juice Powders \* Pinokiss
- \* Jerola \* Mustard Powder
- \* Black Pepper Powder
- \* White Pepper Powder
- \* Everflow Salt
- \* Laundry Starch Powder & Crystals
- \* Icing Sugar \* Icing Mix Pulver
- \* WEP (cleanser) etc.

Write for full particulars

# WEIKFIELD PRODUCTS CO. (INDIA)

Weikfield Estate, Poona-14.

V. S. Industries.—Survey No. 127, Akurdi, Telco Road, Chinchwad, Poona 19.

Vulcan Laval Ltd.—Seva Nagar, Dapodi, Poona 12.

Walchandnagar Industries Ltd.—Walchandnagar, District Poona.

Wandleside National Conductors Ltd.—Lohagaon, Nagar Road, Poona 14.

Wansons (India) Pvt. Ltd.—Chinchwad, Poona 19.

Weikfield Products Co. (I)-Nagar Road, Poona 14.

Western India Erectors P. Ltd.—Sahyadri Sadan, Tilak Road, Poona 30.

West India Chemicals Ltd.—Village Kharadi, Nagar Road, Poona 14.

White Cloud Paper Mill.—Industrial Estate, Gultekdi, Poona 9.

Yeshwant Industries.—Karve Road, Poona 4.

# BANGALORE TRADES & PROFESSIONS

Accura Mfg. Co., Nataraja Buildings, Mysore Road, G.E.F. Post, Bangalore 26.

A.C.E.C. (India) Private Ltd., Shoukat Bldg., Silver Jubilee Park Road, Bangalore 2.

Addison & Co. 53 St. Mark's Road, Bangalore 1.

Advance Industrial Corpn., B-81, Industrial Estate, Rajajinagar, Bangalore 10.

Advani & Co., Private Ltd., J. B. Silver Jubilee Park Road, Bangalore 2.

Agricultural & Allied Industries, C-23, Industrial Estate, Rajajinagar, Bangalore 10.

Agromore Ltd., Mysore Road, Bangalore 26.

Alembic Chemical Works Co. Ltd., Bank of India Bldgs., Kempegowda Road, Bangalore 9.

Allied Business Enterprises, 64, East Anjaneya Temple Street, Bangalore 4.

Aluminium Cables & Conductors, A-82, Industrial Estate, Rajajinagar, Bangalore 10.

Amar Paints & Allied Industries, M. M. Industrial Estate-Yediyur, Bangalore 11.

Amco Batteries Ltd., Mysore Road, Bangalore 26.

Annapoorna Food Products, Magadi Road, Bangalore 23.

Annapurna Cooker Co., 37, Kanakapura Road, Bangalore 4.

Argus Instruments Co., 19, Industrial Estate, Rajajinagar, Bangalore 10.

Armour Industrial Co., D-94, Industrial Estate, Rajajinagar, Bangalore 10.

Aro-Chem Corporation, D-101, Industrial Estate, Rajajinagar, Bangalore 10.

Aromatik (India), 73, Viswanatha Rao Road, Madhavanagar, Bangalore 1.

Aruna Agarbatti Co., 5, Ekambara Sathuji Lane, Chickpet, Bangalore 2.

Aryan Rural Industries, Mysore Road, Bangalore 26.

Asha Dress Mfg. Co., 316/10, Subedar Chatram Road, Bangalore 10.

Ashok Engg. Corporation, D-98, Industrial Estate, Rajajinagar, Bangalore 10.

Asian Paints (India) Pvt. Ltd., 9, Shantappa Lane, Silver Jubilee Park Road Cross, Bangalore 2.

Asoka Elec. & Engg. Co., Brigade Road, Bangalore 25.

Associated Electrical Industries (India) P. Ltd., 27, N.R. Road, Bangalore 2.

Associated Electronic & Electrical Industries, 113-A, Brigade Road, Bangalore 1.

Associated Printers (Madras) P. Ltd., M. Gandhi Road, Bangalore 1.

Associated Traders & Engineers (Private) Ltd., 81-B, J. C. Road, Bangalore 2.

Autos Bearing Co., D-28, 5th Main Road, Bangalore 9.

Automatic Equipment & Engg. Co., 390, Palace Orehard Upper, Bangalore 6.

Avery India Ltd., 31, Central Street, Bangalore 1.

Avlon Products Pvt. Ltd., 1, Hays Street, Bangalore 22.

B. V. Aswathiah & Bros., (Regd.), Post Box 586, Bangalore 2.

Bagalkot Cement Company Ltd., Canara Bank Bldgs., J. C. Road, Bangalore 2.

Bangalore Advertising Co., 43/2, Central Street, Bangalore 1.

Bangalore Bottling Co. Pvt. Ltd., 76, East End Road, Bangalore 4.

Bangalore Chemical & Mfg. Co. (Private) Ltd., V. Block Industrial Estate, Rajajinagar, Bangalore 10.

Bangalore Chemicals & Fertilisers, 15, Police Station Rd., Basavangudi, Bangalore 4.

Bangalore Clothing Factory, 53, Nagarathpet, Bangalore 2. Bangalore Dress Mfg. Co. P. Ltd., 12, Lalbagh Road, Bangalore 27.

Bangalore Electronics, Industries & Laboratories, 18, 2nd Cross, Subedar Chatram Road, Bangalore 9.

Bangalore Enamels, Chemicals & Paints Ltd., Malleswaram, Bangalore 3.

Bangalore Machine Tools, F-64, Industrial Estate, Rajajinagar, Bangalore 10.

Bangalore National Industries, 13, Bettappa Lane, Nagarathpeth, Bangalore 2.

Bangalore Plywoods P. Ltd., B-44, Seshadripuram Main Road, Bangalore 20.

Bangalore Printing & Publishing Co. Ltd., "Lake View", Mysore Road, Bangalore 18.

Bangalore Rubber Industries, C-26, Industrial Estate, Rajajinagar, Bangalore 10.

Bangalore Traders, Kalasipalayam Main Road, Bangalore 2.

Bangalore Trading Co., 44, Old Tharagupet, Bangalore 2.
Bangalore Udyogs & Export Links, H-16, Murugesh
Mudaliar Lane, Nagarathpeth, Bangalore 2.

Bangalore Woollen, Cotton & Silk Mills Co. Ltd., Agraharam Road, Bangalore 23.

Batliboi & Co. Private Ltd., Post Box No. 538, Bangalore 2.

Best & Company Pvt. Ltd., 45, Jaya Chamarajendra Road, Bangalore 2.

Bharani Agencies, Keshava Nivas, 12, First Main Cross, Gandhinagar, Bangalore 9.

Bharat Engineering Works, B-49, Industrial Estate, Rajajinagar, Bangalore 10.

Bharat Fritz Werner Pvt. Ltd., Peenya, Bangalore 22.

Bharat Industrial Corpn., 67, 3rd Road, Srirampuram, Bangalore 21.

Bharath Industrial Enterprises, 22, 1st Cross, Main Road, Jayamahal Extn., Bangalore 6.

Bhaskar Industries, D-40, Industrial Estate, Rajajinagar, Bangalore 10.

Binny & Co. Ltd., Garment Factory, Hebbal, Bangalore 6.

Bombay Burma Trading Corpn. Ltd., 2/4, Benson Cross Road, Bangalore 6.

Bombay Miscellanies P. Ltd.—Chhabria Mansion, 31, Mission Road, Bangalore 27.

British Physical Laboratories I. P. Ltd., 28, K. H. Road, Bangalore 27.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd., Residency Road, Bangalore 25.

Business Forms Ltd., 35, Lavelle Road, Bangalore 1.

Canara Minerals P. Ltd., Shoukat Bldg., S. J. Park Road, Bangalore 2.

Cardboard & Packaging Co. (Mysore) P. Ltd., Bank of India Bldg., K. G. Road, Bangalore 9.

Cardbox Industries, 12, Plain Street, Bangalore 1.

Cement Marketing Co. of India Limited, Canara Bank Bldg., J. C. Road, Bangalore 2.

Chamundi Metal Industries, 80, Industrial Area, Yeshwantpur, Bangalore 22.

Chandan Engineering Industries, Audugodi, Bangalore 20.
Chelpark & Co. Ltd., A-93, Industrial Estate, Rajajinagar, Bangalore 10.

Chicago Telephone & Radio Co. Ltd., 2, Narasimharaja Road, Bangalore 2.

Chowgule Industries Pvt. Ltd., J. C. Road, Bangalore 2. Citizen Commercial Corporation P. Ltd., Beli Sreenivasa Rao Street, Seegebeli, Bangalore 2.

City Implement Works, Kote Manjappa Street, Ulsoor Gate, Bangalore 2.

Claudius & Co., 49, Lalbagh Road, Bangalore 27.

Consolidated Electric Industries, 29, Sri Narasimharaja Road, Bangalore 2.

Consolidated Engineering Co. Pvt. Ltd., Tumkur Road, Yeshwantpur, Bangalore 22.

Crompton Engineering Co. (Madras) Ltd., Post Box 651, Bangalore 2.

Deccan Brakesets Co., 60-61, Industrial Area, Yeshwan-thapur, Bangalore 22.

Deccan Dress Mfg. Co., Central Street, Bangalore 1.

Deepak Insulated Cable Corporation Ltd., Coffee Board Bldg., Bangalore 1.

Dhoodh Papeswari Industries Ltd., 236, Sultanpet, Bangalore 2.

Diesel (India), 2, Lalbagh Fort Road, Bangalore 2. Dunlop (India) Ltd., 45, J.C. Road, Bangalore 2. Durga Industries, 14/5, Magadi Road, Bangalore 23.

Durga Perfumery Works, 43, Subramanya Galli, Akkipet Cross, Bangalore 2A.

Eastern Agencies, 24, Narasimharaja Road, Bangalore 2. Eastern Industrial & Engg. Works (Bangalore) Pvt. Ltd., 84, Industrial Suburb, Yeshwanthpur, Bangalore 22.

Efficient Publicities P. Ltd., 33/5, Infantry Road, Bangalore 1.

Electric Power Devices Co., Canara Mutual Bldg., 4, Residency Road, Bangalore 25.

Electrical & Mechanical Engg. Manufacturers, 120-1, Old Madras Road, Bangalore 8. Electro-Ceramics Mfg. Co., 4-5, Ramaswamy Lay-out, H. Siddiah Road, Bangalore 27.

Electro-Chemical Metal Finishes, Saraswathi Nilayam, 15, Annaswamy Mudaliar Road, Bangalore 1.

Engineering Equipment Mfrs., Balappa Compound, 1st Block, Rajajinagar, Bangalore 10.

Engineers Creative Industries, Basappa Setty Layout, Bangalore 19.

Esso Standard Eastern Inc., 3, Sankey Road, Bangalore 1. Everest Container Corporation, Everest House, Industrial Area, Yeshwantpur, Bangalore 22.

Fabrikote Corporation, 69, XV Cross, Malleswaram, Bangalore 3.

Featherlite Corporation, 136, Mysore Road, Bangalore 26. F-Fibre Corporation, A-83, Industrial Estate, Rajajinagar, Bangalore 10.

Fine Chemical Laboratories, 51, Industrial Suburb, Yeshwantpur, Bangalore 22.

Firebricks & Potteries Private Ltd., Yeshwantpur P.O., Bangalore 22.

Firestone Tyre and Rubber Co. of India Ltd., Kasturba Road, Bangalore 1.

Forster & Co., J. B., 15, St. Mark's Road, Bangalore 1.
Fortune Fertilizers & Industries, 408, 2nd Main Road, Jayanagar, Bangalore 11.

Gannon Dunkerley & Co. Ltd., Coffee Board Bldg., Bangalore 1.

Garlick & Co. (P) Ltd., 42/1, Silver Jubilee Park Road, Bangalore 2.

General Electric Company of India, Ltd., 5, Mahatma Gandhi Road, Bangalore 1.

General Machinery & Spares Co., Mariappa Lane, Silver Jubilee Park Road, Bangalore 2.

General Radio & Appliances Co. Ltd., S. J. Park Road, Bangalore 2.

George Oakes Ltd., Sri Narasimharaja Square, Bangalore 2. Glenand Products, Mahatma Gandhi Road, Bangalore 1. Goodyear Tyre and Rubber Co., of India Private Ltd., 16, Jayachamarajendra Road, Bangalore 2.

Greaves Cotton & Co. Ltd., Aruna Mansions, 78/1, Silver Jubilee Park Road, Bangalore 2.

Growell (I) P. Ltd., 27, Yeshwantpur, Bangalore 22.

Guest, Keen Williams Ltd., Rajajinagar, Bangalore 10.
Gujarat Nets Ltd., 89/17, IVth Cross, Motinagar, Kalasiplayam New Extn., Bangalore 2.

Guru Instruments (P) Ltd., 32, Industrial Suburb, Yeshwantpur, Bangalore 22.

Hermen Mfg. Co., B-17, Industrial Estate, Rajajinagar, Bangalore 10.

Higginbothams Ltd., Mahatma Gandhi Road, Bangalore 1. Hind High Vacuum Co. Pvt. Ltd., A-92, Industrial Estate, Rajajinagar, Bangalore 10.

Hind Industrial & Mercantile Corporation Private Ltd., 50-51, Silver Jubilee Park Road, Bangalore 2.

Hind Mercantile Corpn. Ltd., Tumkur Road, Bangalore 22. Hindustan Dealers Ltd., Kempegowda Road, Bangalore 9. Hindustan Milk Food Manufacturers, 2, VI Main, Wilson Gardens, Bangalore 11.

Hindustan Steel & Allied Industries, H.M.T. Industrial Estate, Bangalore 31.

Ibcon P. Ltd., 18, Palace Road, Bangalore 1.

Imperial Tobacco Co. of India Ltd., Fraser Town, Bangalore 5.

Indian Cable Co. Ltd., Seetharam Bldg., J.C. Road, Bangalore 2. Indian Cereal Products, B-76, Ind. Estate, Rajajinagar, Bangalore 10.

Indian Hume Pipe Co. Ltd., 397, VI Cross, P. U. Orchards, Bangalore 6.

Indian Oxygen & Acetylene Co. Ltd., Tumkur Road, Bangalore 22.

Indian Process Chemical Laboratory, Yeshwantpur, Bangalore 22.

Indian Tin Industries P. Ltd., Old Madras Road, Bangalore 16.

Indo German Plantation Machinery Co., Industrial Suburb, Yeshwantpur, Bangalore 22.

Industrial and Agricultural Engineering Co. (Mysore) P. Ltd., 54-55, Silver Jubilee Park Road, Bangalore 2.

Industrial Engineering Works, 20, 8th Cross, Magadi Road, Bangalore 23.

Industrial Manufacturing Enterprises, F-53, Industrial Estate, Rajajinagar, Bangalore 10.

Industrial Packaging Products, C-32, Industrial Estate, Rajajinagar, Bangalore 10.

Insotex Private Ltd., Mysore Road, Bangalore 18.

Intercontinental Exports & Imports, 87, K. Hanumanthaiah Road, Bangalore 27.

International Book House Pvt. Ltd., 91, Mahatma Gandhi Road, Bangalore 1.

International Chemical & Biological Institute Pvt. Ltd., 28/1, South End Road, Bangalore 4.

International Computers and Tabulators (India) Pvt. Ltd., George Oakes Bldg., Narasimharaja Square, Bangalore 2.

International Instruments Pvt. Ltd., 140, Hosur Road, Bangalore 11.

Iscot-Baliga Machine Co., A-67, Industrial Estate, Rajajinagar, Bangalore 10.

Jairamdas & Sons, 111/118, Silver Jubilee Park Road, Bangalore 2.

Jairamdas Udyog Private Ltd., 111/118, Silver Jubilee Park Road, Bangalore 2.

Jayems Engineering Co., 111/118, Silver Jubilee Park Road, Bangalore 2.

Jindal (India) Pvt. Ltd., Tumkur Road, Bangalore 22.

John Fowler (India) Ltd., Sarjapur, Bangalore 11.

Kamal Industries, 2-F, M. Gandhi Road, Bangalore 1.

Kamani Engineering Corpn. Ltd., Canara Bank Bldg., Jayachamarajendra Road, Bangalore 2.

Kapurchand Bros. (Bangalore) P. Ltd., 274-276, Chickpet, Bangalore 2.

Karamchand Thapar & Bros. Ltd., Narasimharaja Square, Bangalore 2.

Karnatak Exports Ltd., 112, Rajmahal Vilas Extn., Bangalore 6.

Karnataka Cement Pipe Factory, Industrial Estate, Rajajinagar, Rangalore 10.

Kasyapa Trading Corporation, 26, Chinnaswamy Mudaliar Road, Tasker Town, Bangalore 1.

Khoday Ribbon, Carbon & Allied Industries, 10, First Main, Gandhinagar, Bangalore 9.

Kirloskar Asea Ltd., Hebbal Agricultural Farm P.O., Bangalore 24.

Kirloskar Bros. Ltd., 23, Narasimhaiaja Road, Bangalore 2.

Kirloskar Electric Co. Ltd., Rajajinagar, Bangalore 10. Kissan Products P. Ltd., Old Madras Road, Krishnarajanuram Bangalore 16. Krishnamachari & Co., T. T., 2, Infantry Road, Bangalore 1. Krive Industries, M. M. Industrial Estate, Yeidyur.

Bangalore 11.

Laboratory Supplies Co., Krishna Bldg., Avenue Road, Bangalore 2.

Lalitha Dress Mfg. Co., 64, S. J. Park Road, Bangalore 2. Larsen & Toubro Ltd., 38, Cubbon Road, Bangalore 1.

Lalwani Radio Corporation, 37/38, Silver Jubilee Park Road, Bangalore 2.

Lims Engg. Enterprises Pvt. Ltd., D-75, Industrial Estate, Rajajinagar, Bangalore 10.

Lumiline Pvt. Ltd., 108, B.T. Road, Kempegowdanagar, Bangalore 19.

Machine Components Manufacturers, A-3, Industrial Estate, Rajajinagar, Bangalore 10.

Machine Tools India Private Ltd., 41, Silver Jubilee Park Road, Bangalore 2.

Madras Bangalore Transport Co., 14, II Road, New Tharagupet, Bangalore 2.

Mahakali Engineering Corporation, A-66, Nagarathpeth, Bangalore 2.

Mahalakshmi Agarbathy Works, 25, Upstairs, 3rd Main Road, Chamarajapet, Bangalore 18.

Mahomed Ebrahim & Co. P. Ltd., Brigade Road, Bangalore 25.

Malchem Industries (Mysore) Ltd., 351, 10-B, III Block, Jayanagar, Bangalore 11.

Management & Industrial Consultants P. Ltd., 17th Cross, Bangalore 3.

Mandya National Paper Mills Ltd., 7, Museum Road, Bangalore 1.

Maney Wagon Mfg. Co., 1/A, Museum Road, Bangalore 1.
Mantos (Bangalore) P. Ltd., Corporation Bldgs., Residency Road, Bangalore 25.

Manyam & Co., Raja Snow Bldgs., Seshadripuram, Bangalore 20.

Margarine & Refined Oils Co. Ltd., Mysore Road, Bangalore 2.

Meccano Floorings P. Ltd., 32, VI 'C' Main, IV Block, J. Nagar, Bangalore 11.

Menda Industries, B-71, Industrial Estate, Rajajinagar, Bangalore 10.

Metal Lamp Caps India P. Ltd., 2, Murphy Road, Ulsoor, Bangalore 8.

Metalitek, A-68, Industrial Estate, Rajajinagar, Bangalore 10.

Metro Malleable Manufacturers Ltd., 67 Silver Jubilee Park Road, Bangalore 2.

Miltanchemplas Corpn., No. 17, Small Scale Industries Area, Rajajinagar, Bangalore 10.

Minerva Mills Ltd., P. B. No. 1003, Malleswaram, Bangalore 3.

Minute Enterprises P. Ltd., 330/1, S.C. Road, Bangalore 9.

Modern India Trading Co., 296, Akkipet, Bangalore 2.

Modern Industries, C-20, Industrial Estate, Rajajinagar, Bangalore 10. Modern Tool Manufacturers, D-122, Industrial Estate,

Rajajinagar, Bangalore 10. Mohan Alluminium Pvt. Ltd., 94, III Cross, G. Nagar,

Bangalore 9.

Mohan Metal Industries, 31, Jayachamarajendra Road,
Bangalore 2.

rajapuram, Bangalore 16.

Monotype Corpn. Ltd., 22, Residency Road, Bangalore 1. Motor Industries Co. Ltd., 22, Hosur Road, Audugodi, Bangalore 30.

Myer (I) P. Ltd., 32, Cunningham Road, Bangalore 1.

Mysore Acetate & Chemicals Co. Ltd., Sri Jayachamarajendra Road, Bangalore 2.

Mysore Agarbatti Co., 1, Madar Sab Street, Bangalore 2. Mysore Boys Industries, Silver Jubilee Park Road, (Cross Road) Bangalore 2.

Mysere Cements Ltd., 1, Vidhana Veedhi, Bangalore 1. Mysore Ceramics, B-11, Industrial Estate, Rajajinagar, Bangalore 10.

Mysore Chemical Industries, C-21, Industrial Estate, Rajajinagar, Bangalore 10.

Mysore Chemical Mfrs. Ltd., 28 Krishnarajendra Road, Bangalore 4.

Mysore Chrome Tanning Co. Ltd., Mysore Road, Bangalore

Mysore Commercial Union Ltd., P. B. No. 6, Yeshwantpur, Bangalore 22.

Mysore Detergents P. Ltd., 16/1, Residency Road, Bangalore 25.

Mysore Electrical Industries Ltd., 2, Tumkur Road, Bangalore 22.

# THE MYSORE ELECTRO CHEMICAL WORKS LTD.

Manufacturers of: "MEC" Storage Batteries for Motor Vehicles, Fork-Lifts, Tractors, Motor-Cycles, Scooters, Railways, Telephones, Telegraphs & Power Stations etc.

In collaboration with ACCUMULATORENFABRIK, SONNEN SCHEIN, GmbH, West Germany and Semperit A.G. Austria.

Regd. Office & Works: Yeshwantpur, Bangalore 22.

Phones: 3827, 3828, 3863. Grams: "MECWORK". Telex: 341.

Mysore Engineering Co., 17, 3rd Cross, Lalbagh Road, Bangalore 27.

Mysore Feeds Pvt. Ltd., Mysore Road, Bangalore 26. Mysore Foundries, Kanakpura Road, B. Gudi, Bangalore 4.

Mysore Hollowares Corporation, F-62-63, Industrial Estate, Rajajinagar, Bangalore 10.

Mysore Industrial & Testing Laboratory Ltd., 1634, Venkataranga Iyengar Road, Bangalore 3.

Mysore Industrial Corporation, B-47, Industrial Estate. Rajajinagar, Bangalore 10.

Mysore Industrial Plastics, A-1, Industrial Estate. Rajajinagar, Bangalore 10.

Mysore Industrial Supplies, 2-3, Silver Jubilee Park Road. Bangalore 2.

Mysore Iron & Steel Ltd., 174, Gandhinagar, Bangalore 9. Mysore Lamp Works Ltd., Old Tumkur Road, Bangalore 12.

Mysore Leather & Footwear Industries, G.E.F. Post. Bangalore 26.

Mysore Machinery Manufacturers Ltd., 5th Mile, Mysore Road, Bangalore 26.

Mysore Metal Industries, 49-2, Magadi Road, Bangalore 23. Mysore Paper Mills Ltd., Arun Mansions, 78/1, Jayachamarajendra Road, Bangalore 2.

Mysore Pharmaceuticals (1935) P. Ltd., 174, S.C. Road, Bangalore 20.

Mysore Plastikrafts, 96/97, B. Oosmankhan Road, Bangalore 2.

Mysore Porcelains Ltd., Malleswaram, Bangalore 12.

Mysore Radiators, Azeem Bldg., A. V. Road, Bangalore 2.

Mysore Refrigerators & Agencies (P) Ltd., Residency Road, Bangalore 25.

Mysore Sales International Ltd., 36, Cunningham Road, Bangalore 16.

Mysore Spg. & Mfg. Co. Ltd., Magadi Road, Bangalore 23. Mysore Stoneware Pipes & Potteries Ltd., 80, VI Cross, Gandhinagar, Bangalore 9.

Mysore Tools P. Ltd., Coffee Board Bldg., Bangalore 1.

Mysore Vegetable Oil Products Ltd., Platform Road, Bangalore 23.

Mysore Venylin & Rubber Industries, 'India House' 17th Cross, Malleswaram, Bangalore 3.

Mysore Waterproofs Ltd., Hindustan Aircraft P.O. Bangalore 17.

Mysore Wire & Metal Industries, No. 13, IVth Cross, Magadi Road, Bangalore 23.

N. G. E. F. Ltd., P. B. No. 384, Byappanahalli, Bangalore 5. Nagindas Kilabhai, 87, Silver Jubilee Park Road, Bangalore 2.

Nagaraja Industries, 222, Old Tharagupet, Bangalore 2. Nataraja Stainless Steel Industries, 56, Girls School Street, Kumara Park West Extn., Bangalore 20.

National Industries Co., Magadi Road, Bangalore 23. National Products, 8, Bore Bank Road, Bangalore 5.

National Rubber Manufacturers Ltd., Gowri Nilayam, H. Siddiah Road, Bangalore 27.

National Silk Mills, 4-5, Narayana Settypet, Cubbonpet, Bangalore 2.

Natubhai G. Patel & Co. Pvt. Ltd., "The Palace", Palace

Road, Bangalore 1. New Premier Chemical Industries, Sharada Stree Samaj

Bldg., 1st Main Chrompet, Bangalore 18. Noble Paint & Varnish Co. Private Ltd., 5, Godown Street,

Bangalore 2. Olympaid Engineering Works, D-27, Industrial Estate,

Rajajinagar, Bangalore 10. Oriental Rubber Trading Co. (Mysore) P. Ltd., 2/3, Silver

Jubilee Park Road, Bangalore 2.

Packprint P. Ltd., 11-A, Jayachamarajendra Road, Bangalore 2.

Parry & Co. Ltd., 58, Silver Jubilee Park Road, Bangalore 2.

Paxal Corporation, 13, Sri Krishnarajendra Road, Bangalore 2.

Pest Control Co., 16/1, Residency Road, Bangalore 25.

Pest Control (India) P. Ltd., Saleh Ahmed Buildings, Infantry Road, Bangalore 1.

Philips India Ltd., Brigade Road, Bangalore 1.

Pioneer (Madras) Ltd., 46, Central St., Bangalore 1.

Polvynide Products Ltd., BEL Industrial Estate, Bangalore 13.

Prabhat Dress Mfg. Co., Malleswaram Circle, Bangalore 3. Prakash Dress Manufacturing Co., Kempe Gowda Road Cross, Bangalore 9.

Pravin Dress Mfg. Co., 25, Okaleypuram, Bangalore 21.

Precision Engineering Enterprises HMT Ind Estat

Precision Engineering Enterprises, H.M.T. Ind. Estate, Bangalore 31.

Premier Irrigation Equipments P. Ltd., 64, IV Main Road, Malleswaram, Bangalore 3

Printers House Ltd., Musvee Bldg., 146, Central Street, Bangalore 1.

Printers (Mysore) Pvt. Ltd., 16, Mahatma Gandhi Road, Bangalore 1.

# RADIO & ELECTRICALS MFG. CO., LTD.

Post Bag No. 6, Mysore Road, Bangalore 26.

Phone: 75177. Grams: "REMCO".

#### Manufacturers of :

- (1) Radios (Valve and Transistorised types).
- (2) Radio Components such as Band, Switches, Loudspeakers, Paper, Electrolytic & Polyester Capacitors.
- (3) Single and Polyphase Electricity Meters.
- (4) Water Meter.
- (5) P.V.C. Covered Wires, Cables and Bare Conductors
- (6) Lightning Arresters etc.

Radio Soap Institute, Lalbagh Road, Bangalore 2.

Raghulal & Co. (Bangalore) Ltd., 70, Arcot Srinivasachar Street, Bangalore 2.

Raja Vegetable Oils Co., Old Tharagupet, Bangalore 2. Rajakala Chemical Industries, 168, Huriyopet, Bangalore 2. Rajalakshmi Perfumery Works, Mamulpet, Bangalore 2. Ramkumar Mills (P) Ltd., Chickpet, Bangalore 2.

Rampen Pharmaceuticals, 28-D, Millers Road Cross, Bangalore 1.

Rangaswamy & Co. Pvt. Ltd., S. V. 75, Kalasipalyam New Extension, Bangalore 2.

Ravish Synthetic Twines & Ropes Pvt. Ltd., Rajajinagar, Bangalore 10.

Regal Metal Works & Industries, 44, Mamulpet, Bangalore 2.

Reliable Corp., Pvt. Ltd., 5 & 6, Narasimharaja Road, Bangalore 2.

Reliable Engineering Works, 18, J.C. Road, Bangalore 2. Research Chemical Laboratories, 550, 7th Main Road, Bangalore 12.

Rico Trading Co., Narasimharaja Road, Bangalore 2.

Ruby Rubber Works (Bangalore) Ltd., 6th Mile, Bannerghatta Road, Bangalore 29.

Sandur Manganese & Iron Ores (Private) Ltd., Sandur House, Palace Road, Bangalore 1.

Sankey Electrical Stampings Private Ltd., Rajajinagar, Bangalore 10. Saravathi Conductors Pvt. Ltd., Gajee Basettigalli,

Cottonpet, Bangalore 2.

Sarit Mfg. & Research Centre, 5-3, Bore Tank Road, Mysore Road, Bangalore 26.

Satish Dress Mfg. Co., 2216, Sampige Road, Bangalore 3. Satya Industries Private Ltd., 3, Seshadri Road, Bangalore 9.

Scientific Bottles Co., 104, Ragipet, Bangalore 2.

Scientific Instruments Co. Ltd., 41/1, Church St., Bangalore 1.

Shaw Wallace & Co. Ltd., C-54, III Main Road, New Tharagupet, Bangalore 2.

Sheth & Co., C.J., J-33, Avenue Road Cross, Bangalore 2. Shiv-Shakti Dhoop Factory, 10(5), Neelapothiah Lane, Cottonpet Cross, Bangalore 21.

Siemens India Ltd., 5, Hayes Road, Bangalore 25.

Simpson & Co. Ltd., 29-A, Mahatma Gandhi Road, Bangalore 1.

Singer Sewing Machine Co., 171, Commercial St., Bangalore

South India Carbonic Gas Industries Ltd., 7th Mile, Mysore Road, G. E. F. Post, Bangalore 26.

South India Corporation (Agencies) P. Ltd., 60, Oosmankhan Road, Bangalore 2.

South India Surgical Co., 71/1, A.S. Street, Bangalore 2.
Southern Consultants (India) P. Ltd., 19, II Cross,
Nehrunagar, Bangalore 20.

Southern Explosives Co., 79, Vani Vilas Road, Basavangudi, Bangalore 4.

Southern Roadways Ltd., 1, Lalbagh Road, Bangalore 2. Spencer & Co. Ltd., Mahatma Gandhi Road, Bangalore 1. Spos Electricals, H.M.T. Ind. Estate, Bangalore 31.

Sri Krishna Spg. & Wvg. Mills Pvt. Ltd., Sudhama House, Chickpet, Bangalore 2.

Sri Lakshmi Export Corpn., 1, Viswanatha Rao Road, Madhavnagar, Bangalore 1.

Sri Manjunatha Chemicals & Fertilisers, Sabuvani Buildings, Narasimharaja Road, Bangalore 2.

Standard Bottles Supply Co., 88, Ragipet, Bangalore 2. Standard Plastic Manufacturers, D-42, Industrial Estate, Bangalore 10.

States Trading Co., 221, Nagarthpet, Bangalore 2.

Steel Construction Co. P. Ltd., Hardinge Road, Bangalore 4.

Steel (India) P. Ltd., C-12, Industrial Estate, Rajajinagar, Bangalore 10.

Steelite Industries, A/24, H.M.T. Ind. Estate, Jalahalli, Bangalore 31.

Stumpp Schuele & Somappa (P.) Ltd., 78, Hosur Road, Bangalore 11.

Sundaram Motors Pvt. Ltd., 2-2A, Kasturba Road, Bangalore 2.

Swastik Dress Manufacturing Co., 4/1A, Platform Road, Bangalore 20.

Swastik Electric Industries, Chickpet Cross, Bangalore 2. Tata Finlay Ltd., Jalahalli Military Camp Road, Yeshwanthpur, Bangalore 22.

Tata Iron & Steel Co. Ltd., 20-J, Mahatma Gandhi Road, Bangalore 1.

Tata Oil Mills Co. Ltd. (Tomco Sales Department), 2A, Mahatma Gandhi Road, Bangalore 1.

Technolab Instruments Co., 170, III Block, Near Bhashyam Circle, Rajajinagar, Bangalore 10.

Technopak Engg. Co., C-105, Industrial Estate, Rajajinagar, Bangalore 10.

Thos. Cook & Son (Continental and Overseas) Ltd., 20C, Mahatma Gandhi Road, Bangalore 1.

Town Hardware Stores, 5, Godown Street, Bangalore 2.

Tubes & Malleables Ltd., Shoukat Bldgs., S. J. Park Road, Bangalore 2.

Tyretreads (India) Private Ltd., 1, New Mental Hospital Road, Bangalore 2.

Union Co. (Motors) Pvt.Ltd., 8, Brigade Road, Bangalore 1.

Unique Wirenet Industries, 1, Infantry Road, Bangalore 1.

United Breweries Ltd., 24, Grant Road, Bangalore 1.

Vac Foam Industries, 160/5, N. Iyengar Street Cross, Nehru Nagar, Bangalore 20.

Varma Industrials Pvt. Ltd., Domlur Road, H. A. L. Post, Bangalore 17.

Vel Light Engineering Industries, No. 1, 3rd Cross, Lal Bagh Road, Bangalore 27.

Vijaya Industrial Works, Opp. Lalbagh Garden, Bangalore 4.

Vijayam & Co. (Madras) Pvt. Ltd., Chamber of Commerce Bldg., Kempe Gowda Road, Bangalore 9.

Vijay Bobbins & Industries Pvt. Ltd., 54/2, Khader Shareef Gardens, Lalbagh Road, Bangalore 27.

Vikas Sons Pvt. Ltd., 298, Chickpet, Bangalore 2.

Vita Food Products, Mysore Road, G. E. F. Post, Bangalore 26.

Voltas Ltd., 21, Kasturba Road, Bangalore 1.

Waco, 2F, Mahatma Gandhi Road, Bangalore 1.

Webb's Sales & Service Ltd., 37, Mahatma Gandhi Road, Bangalore 1.

West Coast Paper Mills Ltd., 1-L, Kasturba Road, Bangalore 1.

Western India Match Co. Ltd., 63, Mannavarthpet, Bangalore 1.

W. H. Brady & Co. Ltd., 14, Pottery Road, Bangalore 5.Widia (India) Ltd., 8/9th Mile, Tumkur Road, Yeshwantpur, Bangalore 22.

Wire Insulated Cable Products, C-33, Industrial Estate, Rajajinagar, Bangalore 10.

# TAMIL NADU

# MADRAS COMMERCIAL FIRMS

A. Boake Roberts & Co. (India) P. Ltd.—1/5, Sever Wells Street, Madras 16.

A. C. E. C. (India) Ltd.—19/21, Muker Nallamuthu St., Madras 1.

Addison & Co., P. Ltd.—158, Mount Road, Madras 2.

Airlines Hoteliers & Caterers (M) P. Ltd.—177/79, Mount Road, Madras 2.

A. J. & Sons P. Ltd.,—16, Audiappa Naik St., Madras 1. Albert David Ltd.—19, Sunkurama Street, Madras 1.

Alembic Chemical Works Co. Ltd.—34, Angappa Naick St., Madras 1.

Alex Miller (Madras) P. Ltd.—128, Nyniappa Naick St., Madras 3.

Alfred Herbert India P. Ltd.—1st Line Beach, Madras 1. Alumilite P. Ltd.—25A, Casa Major Road, Madras 8.

Amalgamation Private Ltd.—202, Mount Road, Madras 2.

Amalgamations Repco Ltd.—G.N.T. Road, Madhavaram,
Madras 60.

Amarchand Sobachand.—95, Nyniappa Naick St., Madras 3.

Ambadi Enterprises P. Ltd.—11/12, North Beach Road, Madras 1.

Ambalavana Chettiar & Co., P. Ltd.—P. S. N. S.—14, Mint Street, Madras 1.

Amco Engg. Corpn.—A Super 8-9, Industrial Estate, Guindy, Madras 32.

Amrutanjan Ltd.—14/15, Luz Church Road, Madras 4. Anuradha (Madras) P. Ltd.—53, Peters Road, Madras 6. Armstrong Smith Ltd.—106, Armenian Street, Madras 1. Asbestos Cement P. Ltd.—202, Mount Road, Madras 2.

Asbestos, Magnesia & Friction Materials Ltd.—202, Mount Road, Madras 2.

Ashok Leyland Ltd.—Ennore, Madras 57.

Asian Travels (India) P. Ltd.—1, Pattullos Road, Mount Road, Madras 2.

Associated Engineering Enterprises.—Ambattur Industrial Estate, Madras 58.

Associated Publishers (Madras) P. Ltd.—201, Mount Road, Madras 2.

Atlas Copco (I) P. Ltd.—Race Course Road, Guindy, Madras 32.

Auto & Diesel Co. Ltd.—1/155, Mount Road, Madras 2.

Avery Co., Ltd.-16/1, Armenian Street, Madras 1.

Ayurvedashramam Ltd.—100, Gopathy Narayanaswamy Road, T. Nagar, Madras 17.

Baliga Lighting Equipment Private Ltd.—Medavakkam Road, Kovilambakkam, Madras 43.

Balussery Benefit Chit Fund P. Ltd.—3, Singarachari Street, Madras 5.

Bapalal & Co.-47/50, Rattan Bazar, Madras 3.



# **AUDCO INDIA LIMITED**

(Larsen & Toubro Limited in collaboration with Serck Limited of U.K.).

Registered Office: L&T House, Ballard Estate, Bombay I. Phone: 268181. Factory: Mount-Poonamallee Road, Manapakkam, Madras 16. Phone: 802326/7/8.

Manufacturers of: Lubricated taper plug valves in cast iron, cast steel and Audcoloy in collaboration with Serck Audco, U.K.; cast and forged, carbon steel and stainless steel gate and globe valves under licence from Crane Co., U.S.A.; Hyperseal and stainless steel plug valves in collaboration with Serck A.G., Switzerland.

Directors: H. Holck-Larsen, N. M. Desai, John Hover, C. R. Ramakrishnan, F. O. Spitzer, B. H. Toms, G. M. Ranson, Henry Harold.

Selling Agents: Larsen & Toubro Limited, P.O. Bag 5247, Madras 2. Telephone: 82141. Grams: "LARSENBRO". Telex: TLX 270.

Batliboy & Co. Pvt. Ltd.—Batlibhoy House, Armenian Street, Madras 1.

Beardsell & Co. (Private) Ltd., W. A.—8, Second Line Beach, Madras 1.

Best & Co., P. Ltd.—13/15, North Beach Road, Madras 1. Biddle Sawyer & Co. (I) P. Ltd.—331/332, Thambu Chetty St., Madras 1.

Bimetal Bearings Ltd., Huzar Gardens, Sembiam, Madras 11.

Binny & Co. Ltd .- 7, Armenian Street, Madras 1.

Binny's Engineering Works Ltd.—Meenambakkam, Madras 21.

Bird & Co. (Private) Ltd.—Dhun Building, 175/1, Mount Road, Madras 2.

Blackwood Hodge (India) Ltd.—6, G. S. T. Road, Madras 16.

Blue Star Engg. Co., (Madras) P. Ltd.—23/24, Second Line Beach, Madras 1.

Bob Corporation—544, Triplicane High Road, Madras 5. Bombay Co., P. Ltd.—169, Broadway, Madras 1.

Brady, W. H. & Co. Ltd.—154/155, Pophams, Broadway, Madras 1.

Brakes India Ltd. - Padi, Madras 50.

6

Brilliant Trading Corpn. Ltd., 4-A, Basin Bridge Road, Madras 1.

Brimco Plastic Machinery Corpn.—39, Errabalu Chetty Street, Madras 1.

Britannia Biscuit Co. Ltd.—Padi, Madras 50.

British Insulated Callender's Cables Ltd.—153, Mount Road, Madras 2.

British Machinery Supply Co.—136, Mount Road, Madras 6.

British Overseas Airways Corporation—19, Commanderin-Chief Road, Madras 8.

Brunnschweller, A., & Co. Ltd.—53, North Beach Road, Madras I.

Buckingham & Carnatic Co. Ltd.—7, Armenian Street, Madras 1.

Buhari Sons P. Ltd.-4, Gandhi Irwin Road, Madras 8.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd.—Burmah-Shell House, Esplanade, Madras 1.

Business Forms Ltd.—13/1, Sreeram Nagar North Street, Alwarpeth, Madras 18.

Calcutta Chemical Co. Ltd.—5/586, Broadway, Madras 1. Caltex (India) Ltd.—202, Mount Road, Madras 2.

Canara Workshops Ltd.—40, General Patters Road, Madras 2.

Capco Private Ltd.—16, Armenian Street, Madras 1.

Caprihans India Private Ltd.—171, Broadway, Madras I. Carborundum Universal Ltd.—11-12, North Beach Road, Madras 1.

Castrol Ltd.—58/59, North Beach Road, Madras 1. Cauvery Sugars & Chemicals Ltd.—Dare House, North Beach Road, Madras 1.

Cement Marketing Co. of India Ltd.—175/1, Mount Road, Madras 2.

Chandra Foundries Ltd.—55, Basin Bridge Road, Washermanpet, Madras 21.

Chandrie & Co. Private Ltd.—National Insurance Bldg., Esplanade, Madras 1.

Chari & Chari P. Ltd.—53, Sri Thyagaraya Road, Madras 17.

Charles Morgan & Co., Ltd.—314/315, Linghi Chetty Street, Madras 1.

Chelpark Co., Ltd.—37-L, Mount Road, Guindy, Madras 32.

Chemical Enterprises P. Ltd.—C-2, Ambattur Industrial Estate, Madras 58.

Chemical Enterprises P. Ltd.—288/1, T. H. Road.

Chemical Enterprises P. Ltd.—288/1, T. H. Road, Madras 21.

Chemicals & Plastics I. Ltd.—175/1, Mount Road, Madras 2.

Chemie-India.—147, Mount Road, Madras 6.

Cheseborough-Pond's Inc.—19, Commander-in-Chief Road, Madras 8.

Chettinad Cement Corpn. Ltd.—Catholic Centre, 6, Armenian St., Madras 1.

Chitra & Co.—322/23, Linghi Chetty St., Madras 1.

Chitram & Co.-Main Road, Royapuram, Madras 13.

Chokshi Bros. Private Ltd.—Dinroze Estate, 5/17, Mount Road, Madras 2.

Chowgule & Co. (Hind) P. Ltd.—8/2, Victoria Crescent Road, Madras 8.

Chromates & Pigments P. Ltd.—200, Govindappa Naick Street, Madras 1.

City Palayakat Co.—25, Muthu Mari-Chetty St., Madras 1.
C. J. Hewlett & Son India P. Ltd.—304, Thruvottiyur High Road, Madras 21.

Coats of India Ltd.—33, Sheik Maistry Street, Royapuram, Madras 13.

Coats, J. & P. (India) Private Ltd.—191, Anna Pillai St., Madras 1.

Colgate-Palmolive (India) Private Ltd.—12A, Ritchie St.,

Commercial Credit Corpn. P. Ltd., Finance House, Pattulos Road, Madras 2. Consolidated Pneumatic Tool Co. Ltd.—Finance House, Pattulos Road, Madras 2.

Coogans-31, Mount Road, Madras 2.

Coromandel Engg. Co. P. Ltd.—52/53, Jehangir St., Madras 1.

Coromandel Prodorite P. Ltd.—52/53, Jehangir St., Madras 1.

Coromandel Steels Ltd.—8/7 Miles, Madras Avadi Road, Ambattur, Madras 53.

Crompton Engg. Co. (Madras) Ltd.—49/51, 2nd Line Beach, Madras 1.

Cyanamid India Ltd.—101, Armenian Street, Madras 1.

Delican P. Ltd.—59/A, Pulla Reddy Avenue, Shenoynagar, Madras 30.

Delicio Enterprises P. Ltd.—98, Poonamallee High Road, Madras 10.

Dipak Industrial Associates—C-29, Industrial Estate, Madras 32.

Dovel Pistons P. Ltd.—D-3, Industrial Estate, Ambattur, Madras 58.

Dunlop India Ltd.—Ambattur, Madras 53.

East Asiatic Co. (I) P. Ltd.—Mercantile Bank Buildings, 16, First Line Beach, Madras 1.

East India Industries (M) P. Ltd.—498, Mint Street, Madras 3.

Eastern Chemical & Minerals (P.) Ltd.—12-D, Cathedral Gardens, Madras 34.

Easun Engineering Company Limited.—5-7, Second Line Beach, Madras 1.

Ebrahim Currim & Sons—251-256, N. Subhas Chandra Bose Road, Madras 1.

E. I. D. Parry Ltd.—Dare House, North Beach Road, Madras 1.

Electro-Mechanical Components Co.—35, Mount Road, Madras 2.

Emeete & Sons P. Ltd.—30, Coral Merchant St., Madras 1. Empee Corpn. Private Ltd.—20, Venkatachala Mudali Street, Madras 3.

Empire Vermicelli Co.—52, Choolai High Road, Madras 7. Enfield India Ltd.—Tiruvottiyur, Madras 10.

Engine Valves Ltd.—354, M. K. N. Road, Madras 16.

English Electric Co., of India Private Ltd.—P. Box No. 2392, Pallavaram, Madras 43.

Escorts (Agents) Ltd.—19, Commander-in-Chief Road, Madras 8.

Essesstee (Private) Ltd.—20, 2nd Line Beach, Madras 1. Esse Standard Eastern Inc.—Bombay Mutual Buildings, Madras 1.

Eswaran & Sons (Agencies) P. Ltd.—5/7, Second Line Beach, Madras 1.

Everest Inks & Allied Products P. Ltd.—108, Mount Road, Madras 18.

Evergreen Wirecloth Factory—182, Nainappa Naick Street, Madras 3.

Eyre Smelting Pvt. Ltd.—21/22, Alandur Road, P. O. Industrial Estate, Madras 32.

Fabrimats-501, Elliots Beach Road, Madras 32.

Facit Asia Ltd.—Perungudi Post, Madras 41.

Far East Mercantile Co.—764/765, Triplicane High Road, Madras 5.

Feed-O-Fertiliser Plants Mfrs. P. Ltd.—233-A, T. H. Road, Madras 81.



# ENGINEERING CONSTRUCTION CORPORATION LIMITED

(A wholly owned subsidiary of Larsen & Toubro Limited)

Registered Office:

L&T House, Ballard Estate, Bombay 1.

Head Office: 4-5, Club House Road, P.B. No. 343, Mount Road, Madras 2.

Phone: 82119. Grams: "CIVICON". Telex: TLX 270.

# Designers, Civil, Mechanical, Electrical Engineers and Constructors.

Directors: H. Holck-Larsen, S. K. Toubro, P. G. Bhagat, John Hover, E. B. Mogensen.

General Manager: P.-H. Mortensen.

Offices at: Bombay, Calcutta, Madras and Madurai.

Firestone Tyre & Rubber Co. of India Private Ltd.—Woods Road, Madras 2.

Food, Fats & Fertilisers P. Ltd.—67, Godown Street, Madras 1.

Freezing Products (Pvt.) Ltd.—Arcot Road, Virugambakkam, Madras 26.

Frigsales (I) P. Ltd.—1/1, Pattulos Road, Mount Road, Madras 2.

Fruitnik Products—6/98, Poonamallee High Road, Madras 11.

Galiakotwala, C. A. & Co., Ltd.—18, Armenian Street, Madras 1.

Ganges Printing Ink Factory Ltd.—2, Guindy Road, Adyar, Madras 20.

Gannon Dunkerley & Co., (Madras) Private Ltd.—19, Cathedral Road, Madras 6.

Garlick & Co., Ltd.—38/3, Mount Road, Madras 6.

Gem & Co.—325/6, Netaji Subhas Chandra Bose Road, Madras 1.

General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.

General Equipment Merchants Ltd.—29, Broadway, Madras 1.

General & Industrial Leathers Private Ltd.—21, Errabalu Chetty Street, Madras 1.

General Radio & Appliances Private Ltd.-1/18, Mount Road, Madras 2.

Geoffrey Manners & Co., Private Ltd.—43, Moore Street, Madras 1.

Go Industries & Insecticides (India) Private Ltd.— Hindustan Chamber Bldgs., No. 8, Kondichetty St., Madras 1.

- George Oakes Private Limited.—32A, Greames Road, Madras 6.
- Gillanders Arbuthnot & Co., Ltd.—3, North Beach Road, Madras 1.
- G. K. Syndicate Ltd.—119, Armenian Street, Madras 1.
- Gladstone Lyall & Co. Ltd.—Connemara Hotel Annexe, Madras 2.
- Glaxo Laboratories (I) P. Ltd.—30, Velachery Road, Guindy, Madras 32.
- Godrej & Boyce Mfg. Co., Ltd.—177/179, Mount Road, Madras 2.
- Goodyear India Private Ltd.—2, Patullo Road, Madras 2. Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
- Govindaraj & Sons Ltd., P.—44, Theagaraja Road, Madras 1.
- Greaves Cotton & Co. Ltd.—19, Second Line Beach, Madras 1.
- Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 1.
  Hackbridge-Hewittic & Easun Private Ltd.—5-7, Second Line Beach, Madras 1.
- Harshadray P. Ltd.—Dhun Bldgs., 175/1, Mount Road, Madras 2.
- Heatly & Gresham Ltd.—Bombay Mutual Bldgs., Madras 1.
- Higginbothams & Co. (Private) Ltd.—165, Mount Road, Madras 2.
- Hird Mercantile Corporation P. Ltd.—312/13 Linghi Chetty Street, Madras 1.
- Hindu Office and National Press.—"Kasturi Buildings", Mount Road, Madras 2.
- Hindustan Ferodo Ltd. 202, Mount Road, Madras 2.
- Hindustan Lever Ltd.—L.I.C. Bldg., Mount Road, Madras 2.
- Hindustan Thompson Associates Ltd.—19, Commanderin-Chief Road, Madras 8.
- Hivelm Industries P. Ltd.—A. 5 & 6, Industrial Estate, Madras 32.
- Hoechst Pharmaceuticals P. Ltd.—264, Thembu Chetty St., Madras 1.
- Hydraulies Ltd.—29, Mount Road, Madras 2.
- Hygroden P. Ltd. -D-16, Ambattur Industrial Estate, Madras 58.
- Ibcon P. Ltd.-55-B/1, Peter's Road, Madras 6.
- I.C.I. (India) Private Ltd.—Bombay Mutual Buildings, Netaji Subhas Chandra Bose Road, Madras 1.
- Ilford-Selo (India) Private Ltd., 2/3, Woods Road, Madras 2.
- Imperial Tobacco Co. of India Ltd.—Bombay Mutual Bldgs., Netaji Subhas Chandra Bose Road, Madras 1.
- Impex Enterprises—12-A, Dewan Rama Iyengar Road, Purasawalkam, Madras 7.
- India Cements Ltd. 175, Mount Road, Madras 2.
- India Company Private Ltd.—Oriental Bldgs., Armenian St., Madras 1.
- India Forge & Drop Stampings Ltd.—Ambattur, Madras 58.
- India Manufacturers (Madras) P. Ltd.—1/155, Mount Road, Madras 2.
- India Meters Ltd.—5, Montieth Road, Egmore, Madras 8. India Radiators Ltd.—99, Armenian Street, Madras 1.
- India Pistons Private Ltd.—Huzur Gardens, Sembiam, Madras 11.
- India Tyre & Rubber Co. (India) Ltd.—24, Whites Road, Madras 14.

- Indian Biselers, P. Box 1595, Madras 1.
- India Cable Co. Ltd.—153, Mount Road, Madras 2.
- Indian Cable & Wire Industries, 4, Sivarama Sastry Street, Madras 3.
- Indian Commerce & Industries Co. Private Ltd.—95, Broadway, Madras 1.
- Indian Express-Express Estates, Madras 2.
- Indian Hume Pipe Co. Ltd.—9, Bishop Waller Avenue, Edward Elliots Road, Madras 4.
- Indian Industrial Co. Ltd.—363, Esplanade, Madras 1.
- Indian Oxygen Ltd.—7/A, Vaithianatha Mudali Street, Tondiarpet, Madras 21.
- Indian Potash Supply Agency P. Ltd.—8/9, Thambu Chetty St., Madras 1.
- Indian Standard Metal Co. Ltd.—Tiruvottiyur, Madras 19. Indian Traders—158, Broadway, Madras 1.
- Indian Tube Company Ltd.—151, Mount Road, Madras 2.
  Indo Agencies Ltd.—67, Dr. Alagappa Chettiar Road, Vepery, Madras 7.
- Indo Straits P. Ltd.—36, Errabalu Chetty St., Madras 1.
  Industrial & Agricultural Engineering Co. (Madras) P.
  Ltd.—Jagampet Gardens, Chromepet, Madras 44.
- Industrial Chemicals Ltd.—175/1, Mount Road, Madras 2.
  Industrial Diamonds & Tools Co.—4, Bhagathi Lane,
  Rattan Bazar, Madras 3.
- Industrial Engineers (I) P. Ltd.—A-9 & 10, Industrial Estate, Madras 32.
- Industrial Instruments P. Ltd.—17/2, Nungambakkam High Read, Madras 34.
- Industrial Rubber Products—A-21 & 22, Industrial Estate, Madras 32.
- Industrial Technical Services P. Ltd.—18/1, Greames Road, Madras 6.
- Inland Agencies P. Ltd.—30, Koral Merchant St., G. T., Madras.
- International Clearing & Shipping Agency—312/313, Linghi Chetty Street, Madras 1.
- International Computers and Tabulators (India) P. Ltd.—3/18, Mount Road, Madras 2.
- International General Electric Co. (India) Private Ltd.—36-B, Mount Road, Madras 2.
- Iron & Metal Traders P. Ltd.—8, Sembudoss Street, Madras 1.
- Italab P. Ltd.—19, Govindappa Naicken St., Madras 1.
- Jammi Venkataramanayya & Sons—48/1, Royapettah High Road, Madras 4.
- Jayant Packaging P. Ltd.—Super A-12 & 13, Industrial Estate, Madras 32.
- J. B. Advani & Co. Ltd.—98-A, Armenian Street, Madras 1.
  J. B. A. Printing Inks P. Ltd.—76, Ambattur Ind. Estate, Madras 58.
- Jeewanlal (1929) Ltd.—127, Mint Street, Madras 1.
- Jemco P. Ltd.—Super B-3, Industrial Estate, Madras 32.
  Jenson & Nicholson (India) Ltd.—7, Armenian Street,
  Madras 1.
- Johnson & Co. (India)—18, Andhra Insurance Bldgs., Thambu Chetty St., Madras 1.
- Jones & Co. P. Ltd., J. D.—30, Broadway, Madras 1.
- Karamchand Thapar & Bros.—Saifya Chambers, 7, Second Line Beach, Madras 1.
- K. C. P. Ltd.—38, Thiruvottiyur, Madras 19.
- Kerry Jost Tools Ltd.—Plot No. 8, Avadi Road, Ambattur, Madras 58.
- Kasimari Industrial Corporation—295, T. H. Road, Madras 21.

Kesari Kuteeram Ltd.—15, Wescott Road, Madras 14.

Keshavlal Talakehand Private Ltd.-63, Mint St., Madras 3.

Khemka & Co. (Agencies) P. Ltd.—Indian Chamber Bldgs., Esplanade, Madras 1.

Kilachand Devehand & Co. Ltd. -310/311, Linghi Chetty Street, Madras 1.

Kilburn & Co. Ltd.—153, Mount Road, Madras 2.

Kirloskar Brothers Ltd.—153, Mount Road, Madras 2.

Kishinchand Chellaram (India) Private Ltd.-181, Mount Road, Madras 2.

Kohinoor Confectionery Products Ltd.-Arcot Road, Kodambakkam, Madras 24.

Kores (India) Ltd.—1/115, Mount Road, Madras 2.

Kothandaraman & Co.-K. R., 116/117, Moore Street, Madras 1.

Kothari & Sons-'Kothari Building', Nungambakkam High Road, Madras 34.

K. Orr & Co.-16, Stringers Street, Madras 1.

Koudinya Industries (Agencies)-17, Baker Street, Madras 1.

Kowatha Business Syndicate P. Ltd.-95, Broadway, Madras 1.

K. P. V. Sheik Mohamed Rowther & Co.-41, Linghi Chetty Street, Madras 1.

Krishna Industrial Corporation Ltd. -38, Mount Road, Madras 6.

Krishnamachari & Co., T. T .- 331/333, Thambu Chetty Street, Madras 1.

Kutty Flushdoors & Furniture Co. P. Ltd.—Poonamallee High Road, Madras 49.

Lala Gopikrishna Gokuldas 98A, Armenian Street, Madras 1.

Laljee Godhoo & Co.-8, Perumal Mudali Street, Madras 1.

Larsen & Toubro Ltd.-4/5, Club House Road, Mount Road, Madras 2.

Lilaram Shewaram (India) P. Ltd.—200, Govindappa Naick Street, Madras 1.

Lipton India Ltd.—129, Moore Street, Madras 1.

Little's Oriental Balm & Pharmaceuticals Ltd.—Express Estates, Mount Road, Madras 2.

Lloyd Insulations-10, Victoria Crescent, Madras 8.

L. M. Van Mopps Diamond Tools India Ltd.—"Huzur Gardens", Sembiam, Madras 11.

Lotus Industries Ltd.-16, Coral Merchant Street, Madras 1.

Lovelock & Lewes-Mercantile Bank Bldgs., 1st Line Beach, Madras 1.

Lucas Indian Service Ltd .- 10, Patullo Road, Madras 2. Lucas, T. V. S. Ltd.—Padi, Madras 50.

MBT Co.-36, Second Line Beach, Madras 1.

Macmillan & Co. Ltd.-No. 6, Pattulo Road, Madras 2. Maconochie & Co.—Mercantile Bank Bldgs., Madras 1.

Madras Commercial Corporation Ltd.-1/155, Mount Road, Madras 2.

Madras Enamel Works Ltd.-65, Sydenham's Road,

Madras Industrial Linings Ltd.—42/19, Harrington Road, Madras 31.

Madras Light Casting Co. - 330 A, T. H. Road, Madras 21. Madras Oxygen & Acetylene Co. Ltd.-6, Saradambal Street, Madras 17.

Madras Palayakat Co. P. Ltd.-31, Armenian Street, Madras 1.

Madras Polymen Industries .- 5A/147, Mount Road. Madras 6.

Madras Safe Deposit Co. Ltd. -P. Box 267, Madras 1. Madras Sheet Glass Works (P.) Ltd.—Thiruvottiyur.

Madras 19. Madras Vanaspati Ltd.-12/13, Angappa Naicken Street.

Madras 1. Madura South India Corpn. P. Ltd.-80, Sembudoss

Street, Madras 1.

Mahindra & Mahindra Ltd.-175/1, Mount Road, Madras 2

Mahomed Ebrahim & Co. Private Ltd.-7/8, Mount Road. Madras 2.

"Mail", The-Mount Road, Madras 2.

Mansfield Oil Gas Co. Ltd.-10/3, Kilpauk Garden Road, Madras 10.

Marine Ancillaries P. Ltd.—D-5 Ambattur Industrial Estate, Madras 58.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Mdraas 1.

May & Baker (India) P. Ltd.—Purshothamdas Bldg., 193, Mount Road, Madras 2.

Mayor & Co.—16, Ayya Pillai Street, P. T., Madras 3.

McDowell & Co. Ltd.—Second Line Beach, Madras 1.

Meccano Floorings P. Ltd.-533, Poonamalle High Road, Madras 7.

Mercantile Corpn. (India)-15/16, Angappa Naick Street, Madras 1.

Messageries Maritimes Co.-6-20, North Beach Road, Madras 1. Metal Box Co. of India Ltd.—Elaya Mudali Street,

Tondiarpet, Madras 21. Metro Exporters P. Ltd.—C/o Precision Ancillaries, A-2,

Ambattur Ind. Estate, Madras 58. Mettur Beardsell Ltd.—Bombay Mutual Bldg., N. S. C.

Bose Road, Madras 1. Monotype Corporation Ltd.-18, Second Line Beach,

Madras 1.

M. R. Electronic Components Ltd.—Super A-1/2, Industrial Estate, Madras 32.

Muller & Phipps (India) P. Ltd.—17, Angappa Naicken Street, Madras 1.

Murugappa & Sons—"Tiam House", 11/12, North Beach Road, Madras 1. Mysore Insecticides Co. P. Ltd. -6, Linghi Chetty Street,

Madras 1.

Nagpal Ambadi Petro-Chem Refining Ltd.—Tiam House, 11/12, North Beach Road, Madras 1.

Natesan & Co. Private Ltd. - 10, Mount Road, Madras 2. National Carbon Co. (India) Ltd. - 590, Tiruvottiyur High Road, Madras 19.

National Cash Register Co. -38/3, Mount Road, Madras 6. National Engineering Co. (M) Private Ltd.—272/3, Angappa Naick Street, Madras 1.

National Fasteners P. Ltd.-102-D, Mount Road, Madras 35.

National Insulated Cable Co. of India Ltd.-4, Varasidhi Vinayagar Koil Street, Madras 3.

National Organic Chemical Industries Ltd.—'Burmah-Shell House', Madras 1.

National Ptg. Ink Co.-G-3 Ambattur Industrial Estate, Madras 58.

National Tobacco Co. of India Ltd.—145, Angappa Naick Street, Madras 1.

Navin Industries.—18, Linghi Chetty Street, Madras 1. Needle Industries (India) P. Ltd.—31, Bishop Wallers Avenue South, Mylapore, Madras 4.

Nestle's Products (India) Ltd.—153, Mount Road, Madras 2.

Oakley Bowden & Co. (Madras) Ltd.—366, T. H. Road, Madras 19.

Oldham & Son (India) Private Ltd.—P. Box 2635, Madras 32.

Omega Insulated Cable Co. (I) Ltd.—16-17, Ambattur Industrial Estate, Madras 58.

Orient Express Co. Private Ltd.—Agurchand Mansion, 35, Mount Road, Madras 2.

Orient Longmans Ltd.—36/A, Mount Road, Madras 2.

Orient Pharma P. Ltd.—Old Trunk Road, Pallavaram, Madras 43.

Orient Tools & Gauges Ltd.—65, Nelson Manicka Mudaliar Road, Madras 29.

Palghat Chit Funds P. Ltd.—5, Nana Rao Naidu Street, Madras 17.

Parry & Co. Ltd.—"Dare House", North Beach Road, Madras 1.

Patel Volkart Ltd.—5/6, Armenian Street, Madras 1.

Perfumery Ind. P. Ltd.—52/53, Thambu Chetty Street, Madras 1.

Pest Control (I) P. Ltd.—2, Errabalu Chetty Street, Madras 2.

Philips India Private Ltd.—25/4, Mount Road, Madras 2. Pileo Mirror Industries—C-14, Industrial Estate, Madras 32.

Pilot Pen Co. (India) Private Ltd.—Catholic Centre, Armenian Street, Madras 1.

Pioneer Equipment Co. P. Ltd.—3, Casa Major Road, Madras 8.

P. N. Ganesan P. Ltd.—7, Judge Jambulinga Mudaliar Road, Madras 4.

P. Natesan & Co. Ltd.—10, Mount Road, Madras 2.

Polson Ltd.—17, Angappa Naick Street, Madras 1.

Polyene General Industries—1, M. K. N. Road, Madras 32. Poly Propxyl P. Ltd.—55, Ambattur Industrial Estate, Madras 58.

P. Orr & Sons Pvt. Ltd.—Mount Road, Madras 2.

Poppat Jamal & Sons—182, Broadway, Madras 1. Power Tools & Appliances Co.—323, Thambu Chetty Street, Madras.

Precision Products—C-45, Industrial Estate, Madras 32.

Premier Suppliers P. Ltd.—22, Errabalu Chetty Street, Madras 1.

Price Waterhouse, Peat & Co.—122/2, Mount Road, Madras 6.

Printers House P. Ltd.—8, Velders Street, Madras 2.

Protos Engineering Co. P. Ltd.—7/3, Pattulos Road, Madras 2.

Prynne, Abbot & Davis—13, College Road, Madras 6.

Radio Electricals Ltd.—8/1, Victoria Crescent Road, Madras 8.

Rajendra Industries P. Ltd.—38-A, Ponnappa Mudali Street, Perambur, Madras 11.

Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.

Rambal Private Ltd.—Lattice Bridge Road, Adyar, Madras 41.

Ramson & Co.—K-541, Poonamallee High Road, Madras 3. Rane (Madras) Ltd.—7, Velacheri Road, Madras 32.

Rayala Corporation (Madras) P. Ltd.—25-A, Mount Road, Madras 32.

Rayon Traders Private Ltd.—61, Sembudoss Street, Madras 1. Remington Rand of India Limited—35/5, Mount Road, Madras 6.

Refrigerators & Home Appliances Private Ltd.—36, Mount Road, Madras 2.

Richardson & Crudas Ltd.—First Line Beach, Madras 1.

R. K. Paper Industries—C-18, Ambattur Industrial Estate, Madras 58.

Rockweld Electrodes India Ltd.—329, Linghi Chetty Street, Madras 1.

R. Subbaraman & Co. P. Ltd.—11/12, Second Line Beach, Madras 1.

Sakthi Pipes Ltd.-4, Smith Road, Madras 2.

Sami Venkatachelam Chetty & Co.—58, Theagaraya Road, T. Nagar, Madras 17.

Sarvoday Industries—D-6, Ambattur Industrial Estate, Madras 58.

Scott & Pickstock Private Ltd.—6, Armenian Street, Madras 1.

Seashore Traders-20, Kasi Chetty Street, Madras 1.

Sepulchre Bros. (India) Ltd.—11/12, Second Line Beach, Madras 1.

Seshasayee Brothers Ltd.—312, Thambu Chetty Street, Madras 1.

Sethuram Thiagarajan & Co.—175/1, Mount Road, Madras 2.

Shalimar Paints Ltd.—'Vanguard House', Second Line Beach, Madras 1.

Shardlow India Ltd.—"Huzur Gardens", Sembiam, Madras 11.

Shaw Wallace & Co. Ltd.—8/9, Thambu Chetty Street, Madras 1.

Shimada Glass & Flask Factory P. Ltd. -Madras 23.

Siemens India Ltd.—122, Mount Road, Madras 6.

Simplex Concrete Piles (India) Pvt. Ltd.—Casa Major Road, Egmore, Madras 8.

Simpson & Co. Ltd.—202/203, Mount Road, Madras 2.

Simson & McConechy Ltd.—18, Sydenhams Road, Madras 3.

Singer Sewing Machine Co.—12, Mount Road, Madras 2. Sivananda Steels Ltd.—Government Industrial Estate,

Ambattur, Madras 58.

Snow White Industrial Corpn.—109, Netaji Subhas Road, Madras 1.

South India Automotive Corpn. P. Ltd.—24, Whites Road, Madras 14.

South India Corporation (Madras) Ltd.—6, Armenian Street, Madras 1.

South India Corporation Agencies P. Ltd.—99, Armenian Street, Madras 1.

South India Shipping Corporation Ltd., 175/1, Mount Road, Madras 2.

South India Steel & Sugars Ltd.—99, Armenian Street, Madras 1.

South India Structural Corpn. Ltd.—6, Armenian Street, Madras 1.

South Indian Export Co. Ltd.—5, McLean Street, Madras 1.

South Indian Products Ltd.—95, Mundakanniamman Koil

Street, Madras 4. Southern Agencies—7, Kondi Chetty Street, Madras 1.

Southern Agencies—1, Rollin Chetty Street, Marias I.
Southern Asbestos Cements Ltd.—150-A, Mount Road,
Madras 2.

Southern Conduits—C-16 & C-17, Industrial Estate, Madras 16.

Southern Constructions Private Ltd.-Lux Avenue, Madras 4.

Southern Explosives Co.-38/3, Mount Road, Madras 6. Southern Forgings P. Ltd.—A-17 & 18, Industrial Estate, Madras 32.

Southern India Trading Corpn.-3, H. D. Rajah Nagar, Eldams Road, Madras 18.

Southern Industrial Corpn. Ltd.—Polal, Madras 52.

Southern Roadways Private Ltd.—Express Estates, Madras 2.

Southern Screws P. Ltd.-7, Lord Govinddass Nagar Road, Madras 2.

Southern Structurals Ltd .- GDC Bldg., Cathedral Road, Madras 6.

Speed-A-Way Private Ltd.—35/5, Mount Road, Madras 2. Spence Ltd.-24, General Patters Road, Madras 2.

Spencer & Co. Ltd.-Mount Road, Madras 2.

Sri Rama Machinery Corpn. Private Ltd.-5/6, Armenian Street, Madras 1.

Sri Rama Vilas Service Ltd.—1/17, Mount Road, Madras 2. Srinivas Agencies.—21-A2, Mount Road, Madras 15.

Standard Motor Products of India Ltd. - 29, Mount Road, Madras 2.

Standard Printing Machinery Co .- 9, Mount Road, Madras 2.

Straps (I) Ltd.—108, Mount Road, Madras 18.

Sudarshan Trading Co. Ltd.—Sudarshan Bldg., Whites Road, Madras 14.

Sundaram Clayton Ltd.—Padi, Madras 50.

Sundaram Fasteners Ltd.—C-9, Industrial Estate, Ambattur, Madras 58.

Swisswelded Mesh Co. P. Ltd.- A-7, Ambattur Industrial Estate, Madras 58.

T. A. Taylor & Co. Madras Private Ltd.—100, Armenian Street, Madras 1.

Tata Iron & Steel Co. Ltd.-108, Armenian Street, Madras 1.

Tata Oil Mills Co. Ltd.-18/22, Elaiya Mudali Street, Tondiarpet, Madras 21.

Tecalemit (Hind) Ltd.-150/A/3, Mount Road, Madras 2.

Thomas & Co. (India) Ltd., A. V.-16, Marshall's Road, Madras 8.

Thermofoam Industries-F-4, Ambattur Industrial Estate, Madras 58.

Thos. Cook & Sons Ltd.-P.O. Box No. 171, Madras 1.

Thompson & Co. P. Ltd.—33, Broadway, Madras 1.

T. I. & M. Sales Ltd.-11/12, North Beach Road, Madras 1. T. I. Cycles of India Ltd.-11/12, North Beach Road, Madras 1.

T. I. Metal Sections.—Avadi, Madras 54.

T. I. & M. Sales Ltd .- 'Tiam House', North Beach Road, Madras 1.

Tiffin Barytes Asbestos & Paints Ltd.—372/73, Angappa Naick Street, Madras 1.

The Times of India .- 29-A, Whites Road, Royapettah, Madras 14.

Transformer & Switchgear Ltd.-Indian Chamber Bldg., Annex, Esplanade, Madras 1.

Transistor Products P. Ltd.—38, Ambattur Industrial Estate, Madras 58.

Travancore Rayons Ltd.—151, Mount Road, Madras 2.

Tribeni Tissues Private Ltd.—314/315, Linghi Chetty Street, Madras 1.

Tube Investments of India Ltd.—North Beach Road. Madras 1.

Tubes & Malleables Ltd.—99, Armenian Street, Madras 1. Tube Suppliers Ltd.-699, Armenian Street, Madras 1.

Tullis Woodroffe & Co. P. Ltd.-1/21, North Beach Road, Madras.

Turner Hoare & Co. Ltd.-1/18, Mount Road, Madras 2.

Typewriter & Office Appliances (India) Co. Private Ltd .-17, Armenian Street, Madras 1.

Union Carbide India Ltd.—590, T. H. Road, Madras 21. United Liner Agencies of India Ltd.-7, 2nd Line Beach Madras 1.

United Printers Syndicate P. Ltd.-48/42, North Usman Road, Madras 17.

United Steel Companies India P. Ltd.—150-A, Mount Road, Madras 2.

Upper India Bearings P. Ltd.—A/23, Industrial Estate, Madras 32.

Upper India Trading Co. P. Ltd.-1/18, Mount Road, Madras 2.

V. D. Swami & Co. P. Ltd.—123, Mount, Road, Madras 6. Vaman Bros. - 39, Spurtank Road, Chetput, Madras 31.

Vernon & Co. Ltd.- 11/12, Car Street, Madras 1. Vikas Industries, C-23, Industrial Estate, Madras 32.

Vikrama Engineering Co. (Agencies)-2, Lattia Bridge Road, Adyar, Madras 20.

Volkart India Ltd.-5/6, Armenian Street, Madras 1.

Voltas Limited-115/116, Armenian Street, Madras 1. Vulcan Laval Ltd.—38-C, Mount Road, Madras 6.

Vummidi Bargaru Chetty & Sons-28, N. S. C. Bose Road, Madras 1.

Vunmidi Ramiah Chetty Guruswamy Chetty & Co.-23/25, N. S. C. Bose Road, Madras 1.

Vummidiars Manufacturers Private Ltd.-162, Mount Road, Madras 2.

Ward Blenkinsop & Co. (I) Ltd.—Chithattur, P.O. Pammal, Madras 43.

Water Supply Specialists P. Ltd.-330, Thambu Chetty Street, Madras 1.

Wavin India Ltd.—B-17, Ambattur Industrial Estate, Madras 58.

Western India Match Co. Ltd.-38-C, Mount Road, Madras 2.

Wheel & Rim Co. of India Private Ltd.—Sembiam, Madras 11.

Wheels India Ltd.—Padi, Madras 50.

Wilfred Pereira Private Ltd.—2/3, Church Road, Madras 7. William Jacks & Co. I. Pvt. Ltd.—National Bank Building, First Line Beach, Madras I.

Wilson & Co. Private Ltd.—'Chordia Mansions', 150-A, Mount Road, Madras 2.

Winsome Commercials-262, Linghi Chetty Street, Madras 1.

Winston India P. Ltd.—C-10, Ambattur Industrial Estate, Madras 58.

Wirenetting Industries Corpn. -17, Rundalls Road, Vepery, Madras 7.

Wren, Bennett & Co. India Ltd.—25, General Patters Road, Madras 2.

W. S. Insulators of India Ltd.—'Dhun Building', 175/1, Mount Road, Madras 2.

# MADRAS CLASSIFIED LIST OF TRADES & PROFESSIONS

### ABRASIVES

Ambadi Enterprises P. Ltd.—11/12, North Beach Road,

Madras 1. Best & Co. Ltd.—13/15, North Beach Road, Madras 1.

Carborundum Universal Ltd.—7, Second Line Beach, Madras 1.

Cutfast Abrasive Tools P. Ltd.—Pallikkaranai, Medavakkam, Madras 45.

Gillanders Arbuthnot & Co., Ltd.—1st Line Beach, Madras 1.

Gordon Woodroffe & Co. (Madras), Ltd.—1/21, North Beach Road, Madras 1.

Grindwell Abrasives Ltd.—28, Armenian Street, Madras 1.
L. M. Van Mopeds Diamond Tools I. Ltd.—Huzur Gardens,
Madras 11.

R. Subbaraman & Co. P. Ltd.—11/12, Second Line Beach, Madras 1.

Vernon & Co. Ltd.—11/12, Car Street, Madras 1.

William Jacks & Co. India P. Ltd.—National Bank of India Bldg., First Line Beach, Madras 1.

# ADDING, CALCULATING AND ACCOUNTING MACHINES

Bradma of India Ltd.—1/18, Mount Road, Madras 2. Facit Asia Ltd.—Perungudi, Madras 41.

Gillanders Arbuthnot & Co., Ltd.—1st Line Beach, Madras 1.

Indian Manufacturers (M) P. Ltd.—35, Mount Road, Madras 2.

International Computers & Tabulators (I) P. Ltd.—L.I.C. Bldgs., 3/18, Mount Road, Madras 2.

Kilburn & Co. Ltd.-153, Mount Road, Madras 2.

# ADVERTISING AGENTS AND CONSULTANTS

Ajanta Advertising-35, Mount Road, Madras 2.

Associated Advertisers & Printers—36, East Mada Street, Madras 4.

Chari Advertising—24, Errabalu Chetty Street, Madras 1. Clarion Advertising Service Ltd.—150A/2, Mount Road, Madras 2.

.Criterion Publicity P. Ltd.—19, Woods Road, Madras 2. D. V. Advertising—15, Kavarai Street, Madras 15.

Efficient Publicities P. Ltd.—19, Woods Road, Madras 2. Elegant Publicities—77, General Patters Road, Madras 2. Ganesh Publicities—8, Bells Road, Triplicane, Madras 5.

Grant Advertising India Ltd.—Safire Theatre Building, 123, Mount Road, Madras 6.

Hindustan Publicity Bureau—57, Audiappa Naick Street, Madras 1.

Hindustan Thompson Associates Ltd.—19, C-in-C Road, Madras 8.

Krishnaswami & Co., V. S.—106, Armenian Street, Madras 1.

L. A. Stronach & Co. (India) Ltd.—30, General Patters Road, Madras 2.

L. R. Swami—96-A, Mount Road, Teynampet, Madras 18. Madras Advertising Co. Private Ltd., The—200, Mount

Road, Madras 2.

Madras Booklet Match Co.—Bhajanai Koil Street,
Madras 16.

Moulis Advertising Service—42, Whites Road, Madras 14.
Nalin Publicity Bureau—11/12, Second Line Beach,
Madras 1.

0

National Advertising Service Private Ltd.—150B, Mount Road, Madras 2.

National Publicity Co.—45, Sir Theagaraya Road, Madras 17.

Paramount Publicities—96-A, Mount Road, Teynampet, Madras 18.

Ravi Publicity Service—2, Gangadara Mudaly Street, Madras 34.

Sastry's Advertising—Indian Chamber Buildings, Esplanade, Madras 1.

Swastik Advertising—2, Thambu Chetty Street, Madras 1. Vijaya Publicity—14, Bazar Road, Madras 14.

### AGRICULTURAL IMPLEMENTS

ABCOY.—L. R. Swamy Bldg., 96-A, Mount Road, Madras 18.

Agricultural Equipment Co. Ltd.—235, Poonamalle High Road, Madras 3.

Amalgamations P. Ltd.—202, Mount Road, Madras 4.

Easun Engineering Co. Ltd.—5/7, Second Line Beach, Madras I.

Engineering Accessories P. Ltd.—F-14, Ambattur Industrial Estate, Madras 58.

Gillander's Arbuthnot & Co. Ltd.—First Line Beach, Madras 1.

Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.

Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.

Madras Engineering Works—3, North Wall Road, Madras 1.

Madras S. Mall Industries Corpn. Ltd.—35/2, Woods Road, Madras 2.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.

Modern Machine Works—5, Errabalu Chetty Street, Madras 1.

National Engineering Co. (Madras) Ltd.—379, Netaji Subhas Chandra Bose Road, Madras 1.

Raj Mechanical Works—Tiruvottiyur High Road,
 Madras 19.
 Rallis (India) Ltd.—Ralli House, 320, Linghi Chetty Street,

Madras 1. Shaw Wallace & Co. Ltd.—8/9, Thambu Chetty Street,

Madras 1.
S. Jagannatham & Co.—84, Nyniappa Naick Street,
Madras 3.

South Indian Export Co. Ltd.—5, McLean Street, Madras 1.

Tecalemit (India) Ltd.—150-A/3, Mount Road, Madras 2. Tractors & Farm Equipment Ltd.—11, Kothari Road, Madras 34.

Voltas Ltd.—115/116, Armenian Street, Madras 1.

William Jacks & Co. I. P. Ltd.—National Bank Building, First Line Beach, Madras 1.

# AIR-CONDITIONING AND REFRIGERATION

Air-Conditioning Corpn. Ltd.—32, Greames Road, Madras 6.

American Refrigerator Co. Limited—150/A/3, Mount Road, Madras 2.

Andhra Electric Co.—115-A, China Bazar, Madras I. Bharat Air-Conditioning & Refrigeration Services—40,

Whites Road, Madras 14.

Best & Co. Ltd.—First Line Beach, Madras 1.

Blue Star Limited—23/24, Second Line Beach, Madras 1. Bombay Ammonia Pvt. Ltd.—35, Mount Road, Madras 2.

Boopathy Engg. Works—1/93, Keelakattalai Village, Mount Madipakkam Road, Old Pallavaram, Madras 43.

Everkool Enterprises—34, Sarangapani Street, Madras 17.
Frigsales (I) P. Ltd.—1/1, Pattulos Road, Mount Road, Madras 2.

General Radio & Appliances Ltd.—1/18, Mount Road, Madras 2.

General Import & Export Corpn. Pvt. Ltd.—41, Venkatachala Chetty Street, Triplicane, Madras 58.

Gillander's Arbuthnot & Co. Ltd.—First Line Beach, Madras 1.

Kundlia Brothers—296, Lingha Chetty Street, Madras 1. Larsen & Toubro Ltd.—4/5, Club House Road, Madras 2. Lloyd Sales Corpn.—10, Victoria Crescent, Madras 8.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.

Mettur Industries Ltd.—Bombay Mutual Bldg., N. S. C. Bose Road, Madras 1.

Mohamed Ebrahim & Co. Ltd.—7/8, Mount Road, Madras 2.

Parry & Co.—Dare House, First Line Beach, Madras 1. Quality Industries—B-4, Industrial Estate, Ambattur, Madras 58.

Refrigerators & Home Appliances Ltd.—36, Mount Road, Madras 2.

Richardson & Cruddas Ltd.—First Line Beach, Madras 1. R. V. R. Syndicate—147711E, Venkatachala Mudali Street, Madras 14.

Spencer & Co. Ltd .- Mount Road, Madras 2.

Standard Electric Co.—27, General Patters Road, Madras 2.

Voltas Ltd.-115/116, Armenian Street, Madras 1.

W. A. Beardsell & Co. (Private) Ltd.—8, Second Line Beach, Madras 1.

# ASBESTOS PRODUCTS

Asbestos, Magnesia & Friction Materials Ltd.—202, Mount Road, Madras 2.

Hindustan Ferodo Ltd.—202, Mount Road, Madras 2. Rajalakshmi Agencies—304/2, Thambu Chetty Street, Madras 1.

Scott & Pickstock Ltd.—6, Armenian Street, Madras 1. Sri Gajalakshmi Agencies—144, Pycrofts Road, Madras 5. Sri Jayalakshmi Hall—2/142, Mount Road, Madras 6.

# **AUTOMOBILE & ANCILLARY INDUSTRIES**

Best & Co. Pvt. Ltd.—13/15, North Beach Road, Madras 1. Best & Co. (Mfrs.) Pr. Ltd.—A-8, Ambattur Industrial Estate, Madras 58.

Bimetal Bearings Limited—Huzur Gardens, Sembiam, Madras 11.

Brakes (India) Ltd.—Padi, Madras 50.

Carburettors Limited—29, Mount Road, Madras 2.

Enfield India Ltd.—"Royal Enfield" Bldgs., Tiruvottiyur, Madras 19.

Engine Valves Ltd.—No. 5, Patullos Road, Mount Road, Madras 2.

George Oakes Ltd.—32-A, Greames Road, Madras 6. Hydraulics Pvt. Ltd.—29, Mount Road, Madras 2.

India Pistons Repco Limited—Huzur Gardens, Sembiam, Madrae 11.

India Radiators Ltd.—99, Armenian Street, Madras 1.

Jonas Woodhead & Sons (India) Limited—41, Thiruneer-malai Road, Chrompet P. O., Madras 14.

John Wriston Corporation—5, Santhome High Road, Mylapore, Madras 4.

Rane Brake Linings Limited—Plot No. 30, Industrial Estate, Ambbatur, Madras 58.

Rane (Madras) Ltd.—47, Velacherry Road, Madras 32.

Simpson & Co. Ltd.—202/203, Mount Road, Madras 2. Southern Industrial Corporation Ltd.—99, Armenian Street, Madras 1.

Standard Motor Products of India Ltd.—29, Mount Road, Madras 2.

Sundaram-Clayton Ltd.—Padi, Madras 50. Wheels India Ltd.—Padi, Madras 50.

# AUTOMOBILES, AUTOMOBILE PARTS AND ACCESSORIES

Accurate Products Corpn. P. Ltd.—Vellacheri Road, Vellacherry, Madras 2.

Addison & Co. P. Ltd.—158, Mount Road, Madras 2.

Allied Automobiles—19-A, Woods Road, Mount Road, Madras 2.

Anand Agencies—14-90, Amman Koil Street, Madras 1. Arc Engineering Works—D-17, Ambattur Industrial Estate, Madras 58.

Asbestos, Magnesia & Friction Materials Ltd.—202, Mount Road, Madras 2.

Ashok Automobiles—44, General Patters Road, Madras 2. Asiatic Automobiles—41-A, General Patters Road, Mount Road, Madras 2.

Associated Traders—Tool House, Pattulos Road, Madras 2.

Auto & General Supplies Co.—Bharat Insurance Bldg., 1/18, Mount Road, Madras 2.

Autolec Industries—F-15, Ambattur Industrial Estate, Madras 58.

Autoliners (Madras) P. Ltd.—202, Mount Road, Madras 2.
Automac (Madras) P. Ltd.—D-1, Ambattur Industrial
Estate, Madras 58.

Automotive Agencies (P) Ltd.—12, Smith Road, Mount Road, Madras 2.

Automotive & Allied Industries (Pvt.) Ltd.—4, Westcott Road, Madras 14.

Automotive Traders—48, Bobegun Street, General Patters
Road, Madras 2.

Auto Parts Trading Co.—22, General Patters Road, Madras 2.

Bharat Automobiles—59/1, General Patters Road, Mount Road, Madras 2.

Bharat Bhushan Co.—4A, Woods Road, Madras 14. Bharat Motors—35, Mount Road, Madras 2.

Bit-Tool P. Ltd.—D-14, Ambattur Industrial Estate, Madras 58.

Carburettors Ltd.—29, Mount Road, Madras 2.

Central Auto Parts Co.—75, Apparswamy Koil Street, Mylapore, Madras 4.

Continental Parts Co.—3, State Bank Street, Mount Road, Madras 2.

Do-Vel Pistons P. Ltd.—D-3, Ambattur Industrial Estate, Madras 58.

Eastern Automobile & Engineering Co. (P) Ltd.—24, General Patters Road, Madras 2.

General Automobiles—22, General Patters Road, Madras 2. General Engg. Industries.—C-6, Ambattur Industrial Estate, Madras 58.

George Vint Bhalla (P) Ltd.—7, Woods Road, Mount Road, Madras 2.

Globe Traders-7-B, State Bank Street, Madras 2.

Hercules Automobiles—Express Estates, Woods Road, Madras 2.

Hindustan Ferodo Ltd.-202, Mount Road, Madras 2.

Hindustan Motors Ltd.—83, Peters Road, Madras 14.

Hindustan Pistons (P) Ltd.—52, Dams Road, Mount Road, Madras 2.

India Filters Mfrs. P. Ltd.—B-11, Ambattur Industrial Estate, Madras 58.

India Motor Parts & Accessories P. Ltd.—1/155, Mount Road, Madras 2.

International Trading Corporation—2, State Bank Street, Mount Road, Madras 2.

Kaliq Automobiles-12, State Bank Street, Madras 2.

Khivraj Motors P. Ltd.—150/A, Mount Road, Madras 2. Lakshmi Motors—35, General Patters Road, Madras 2.

Madras Agency—16, General Patters Road, Mount Road, Madras 2.

Madras Auto Diesel House—8-A, Pattulos Road, Madras 2. Madras Auto Service P. Ltd.—37, Mount Road, Madras 6. Madras Mercantile Agencies (P) Ltd.—1/18, Mount Road, Madras 2.

Madras Motors P. Ltd.-36C, Mount Road, Madras 2.

Madras Sales Corporation—22, General Patters Road, Madras 2.

Marikar (Motors) Ltd.—18, General Patters Road, Madras 2.

Modern Automobiles—4/17-A, Mount Road, Madras 2.

Motor Industries Co. Ltd.—1/155, Mount Road, Madras 2. National Products Corporation P. Ltd.—22, General

Patters Road, Madras 2. Narayan Automobiles—8, State Bank Street, Madras 2.

National Implements (India) Ltd.—175/1, Mount Road, Madras 2.

Odeon Automobiles—82A, General Patters Road, Madras 2.

Oil Seal Traders—25, Wallers Road, Mount Road, Madras 2.

Overseas Manufacturers Sales Co.—22, General Patters Road, Madras 2.

Packwell Industries P. Ltd.—1-9, Old Trunk Road, Pallavaram, Madras 43.

Pioneer (Madras) Pvt. Ltd.—23, Mount Road, Madras 2. Premier Auto-Electric P. Ltd.—4, Pattulos Road,

Presidency Motors—41-C, General Patters Road, Madras 2. Rane Brake Linings—30, Ambattur Industrial Estate,

Madras 58.
Reliance Motor Co. P. Ltd.—160, Mount Road, Madras 2.

Reunion Engg. Co. P. Ltd.—19, Commander-in-Chief Road, Madras 8.

Southern Auto Agencies—8, State Bank Street, Mount Road, Madras 2.

South India Automotive Corporation Private Ltd.—24, Whites Road, Madras 14.

Southern India Trading Corporation—4, Westcott Road, Madras 14.

Spence Ltd.—24, General Patters Road, Madras 2.

Sree Kamakshi Industries—C-16, Ambattur Industrial Estate, Madras 58.

Sri Lakshmi Industrial Equipment—D-18, Ambattur Industrial Estate, Madras 58.

Sundaram Motors P. Ltd.—37, Mount Road, Madras 6.
Swiss Welded Mesh Co. P. Ltd.—A-7, Ind. Estate, Ambattur, Madras 58.

Trustwell Industries—10/6, Ambattur Industrial Estate, Madras 58.

Union Com. (Accessories) P. Ltd.—29, Mount Road, Madras 2.

Upper India Trading Co. (P) Ltd.—1/18, Mount Road, Madras 2.

V. S. T. Motors P. Ltd.-34, Mount Road, Madras 2.

### **AUTOMOBILE MANUFACTURERS**

Ashok Leyland Ltd.—Ennore, Madras 57.

Standard Motor Products of India Ltd.—29, Mount Road, Madras 2.

#### BATTERIES

Amalgamations Private Ltd.—202, Mount Road, Madras 2. Associated Battery Makers (Eastern) Ltd.—150-B, Mount Road, Madras 2.

Associated Electrical Industries (India) Ltd.—35/5, Mount Road, Madras 2.

Auto-Mark P. Ltd.—1/B, Commander-in-Chief Road, Madras 8.

Chloride & Exide Batteri.s (Eastern) P. Ltd.—Exide House, 150-B, Mount Road, Madras 6.

General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.

Himco Batteries Madras Private Ltd.—144, Mount Road, Madras 6.

Lucas T.V.S. Service P. Ltd.-Padi, Madras 50.

Oldham & Sons (India) P. Ltd.—P. Box 2635, Madras 32. South India Export Co. Ltd.—5, McLean Street, Madras 1.

### BEARINGS (BALL AND ROLLER)

Ball Bearing Co.-117, Peters Road, Madras 14.

Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2. Heatly & Gresham Ltd.—Bombay Mutual Bldgs., Madras 1.

H. M. Brothers-80/81, Sembudoss Street, Madras 1.

Jairamdas & Sons—3, Errabalu Chetty Street, Madras 1. Kapoor Enterprises—76, Thambu Chetty Street, Madras 1. Kilburn & Co. Ltd.—32/33, Linghi Chetty Street, Madras 1. Madras Ball Bearing House—17-A, General Patters Road, Madras 2.

Malhotra Mill Store Co.—33, Mooker Nallamuttu Street, Madras 1.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.

Prakash Trading Co.—54, Thambu Chetty Street, Madras I.

Sachdev Trading Co .- P. Box 54, Madras 1.

Shriram Bearings Ltd.—154,155, Broadway, Madras 1.
S.K.F. Ball Bearing Co. P. Ltd.—7, Armenian Street, Madras 1.

Southern Bearing Co.-54, Bunder Street, Madras 1.

United Bearing Co.—45, Thambu Chetty Street, Madras 1. Upper India Bearings P. Ltd.—4/147, Mount Road, Madras 6.

### BOLTS, NUTS AND SCREWS

Amar Industrial Corporation—85, Rasappa Chetty Street, Madras 3.

Guest, Keen Williams Ltd.—202, Mount Road, Madras 2.
Jairamdas & Sons.—23, Errabalu Chetty Street, Madras 1.
Madras Bolts & Nuts P. Ltd.—C-17, Ambattur Industrial Estate, Madras 58.

Noble Hardware Mart-22, Sembudoss Street, Madras 1.

Noor & Co.-249, Rasappa Chetty Street, Madras 3.

Precision Fastenings—56, Ambattur Industrial Estate, Madras 58.

Sundaram Fasteners P. Ltd.—C-9, Ambattur Industrial Estate, Madras 58.

## BOOKSELLERS AND PUBLISHERS

Allied Publishers Private Ltd.—Mohan Mansions, 38/C, Mount Road, Madras 6.

Amudha Nilayam P. Ltd.—91, Mount Road, Madras 18. Ananda Vikatan—Mount Road, Madras 2.

Aruna Publications—23, G. N. Chetty Road, Madras 17. Asia Publishing House—99, Mount Road, Madras 2.

Avval Noolagam-4/41, Broadway, Madras 1.

Balkumar & Co.—Appah Buildings, Esplanade, Madras 1. Bharathi Pathippagam—14, Usman Road, T'Nagar, Madras 17.

Bible Society of India & Ceylon—P.B. No. 502, Park Town, Madras 3.

Blackie & Sons India Ltd.—2/18, Mount Road, Madras 2. Book Centre—1/155, Mount Road, Madras 2.

Books India (Private) Ltd.—135, Coral Merchant Street, Madras 1.

Central Book Depot—B1, Pycrofts Road, Triplicane Madras 6.

Chandamama Publications—2 & 3, Arcot Road, Madras 26.
Christian Literature Society—Post Box No. 501, Madras 3.
Cultural Books P. Ltd.—31, Meerasahib Street, Madras 2.
Higginbothams (Private) Ltd.—Post Box No. 311,
Madras 2.

Himalaya Publications-14, Warren Road, Madras 4.

Inba Nilayam—34, Kutchery Road, Mylapore, Madras 4.
India Book House—Purushotham Bldgs., 193, Mount Road, Madras 2.

Indian Publishing House Ltd.—14, Sunkurama Chetty Street, Madras 1.

Jaico Publishing House—7, State Bank Lane, Mount Road, Madras 2.

Jyothi Nilayam—Muslim High School Compound, Triplicane, Madras 5.

Kalaimagal Publications—55/56, M. K. Amman Koil Street, Mylapore, Madras 4.

Kalki-Kalki Bldgs., Chetpet, Madras 31.

Kaviya Kazhagam—4, Rajagopala Naickon Lane, Chintadripet, Madras 2.

Little Flower Co.—8, Ranganathan Road, Thyagarayanagar, Madras 17.

Macmillan & Co. Ltd.-6, Patullo Road, Mount Road, Madras 2.

Map & Atlas Publications P. Ltd.—331/33, Thambu Chetty Street, Madras 1.

Mercury Publishing House—38, Sambanda Mudaliar Street, Madras 28.

National Publishing Co.—6, Kondi Chetty Street, Madras 1.

New Century Book House P. Ltd.—6, Nallathambi Chetty Street, Madras 2.

Orient Longmans (P) Ltd.—36-A, Mount Road, Madras 2. Our India Directories & Publications (P) Ltd.—11, 2nd Mair Road, Madras 28.

Oxford University Press-Mount Road, Madras 2.

Paul & Co., B. G.—4, Francis Joseph Street, Madras 1.

Pearl Publications—Purushotham Bldgs., 193, Mount Road, Madras 2.

Presidency Book Supplies—8-C, Pycrofts Road, Madras 5. Protima Books—49, Mukathal Street, Madras 7. Rajeswari Book House—28, V. S. V. Koil Street, Mylapore, Madras 4.

Ramnath Publications P. Ltd.—65/5, Arcot Road, Kodambakkam, Madras 24.

Sakthi Karyalayam-1/142, Mount Road, Madras 6.

Samskriti Nilayam—88, Kutcheri Road, Mylapore, Madras 4.

M. Seshachalam & Co.—14, Sunkurama Chetty Street, Madras 1.

South India Saiva Siddhantha Works Publishing Society— 1-140, Broadway, Madras 1.

Southern Languages Book Trust—441, Poonamallee High Road, Madras 10.

Star Publications-Big Street, T.iplicane, Madras 5.

Swadesa Mitran-7 & 8, Mount Road, Madras 2.

Theosophical Publishing House—Adyar, Madras 20.

T. V. Chellappa Sastry & Sons—No. 2, Phillips Street, Madras 1.

Vanathi Pathippagam—82/1, Pondy Bazaar, T'Nagar, Madras 17.

Vidya Sagar Corpn. (P) Ltd.—35, Katchaleswaran Agraharam, Madras 5.

# BRIGHT BARS & SHAFTINGS (M.S.)

Arkay's National Eng. & Foundry Co.—C-1, Ambattur Industrial Estate, Madras 58.

Coromandel Industries—28/A, Ambattur Industrial Estate, Madras 58.

Indian Bright Steel Co. Ltd.—24, Ambattur Industrial Estate, Madras 58.

Trustwell Industries—10/6, Ambattur Industrial Estate, Madras 58.

CABLES & WIRES

# COMPENSATING CABLES

for Chromel/Alumel Copper/Constantan Iron/Constantan

and
Platinum/Rhodium
Thermocouples

also THERMOCOUPLES

# TAURUS INDIA

74, St. Mary's Road, P.O. Box 3102, Madras-28.

Phone: 76598.

#### CEMENT & CONCRETE

Andhra Cement Co. Ltd.—38, Mount Road, Madras 6. Asbestos Cement Ltd.—202, Mount Road, Madras 2.

Chettinad Cement Corpn. Ltd.—Catholic Centre, 6, Armenian Street, Madres 1.

Coromandel Prodorite P. Ltd.—52/53, Jegangir Street, Madras 1.

Hyderabad Asbestos Cement Products Ltd.—4, Stringers Street, Madras 1.

India Cements Ltd.—175/1, Mount Road, Madras 2.

K. Mohan & Co.—163, Nyniappa Naick Street, Madras 3.
Southern Asbestos Cements Ltd.—150-A, Mount Road, Madras 2.

### CHEMICAL & PHARMACEUTICAL PRODUCTS

Abbot Laboratories (I) Ltd.—3, Errabalu Chetty Street, Madras 1.

Alfred Berg & Co. (I) Ltd.—246-47, Poonamallee High Road, Madras 29.

Alvitone Laboratories-8, Trunk Road, Madras 16.

Amrutanjan Ltd.—14/15, Luz Church Road, Mylapore, Madras 4.

Anglo Thai Corporation Ltd.—129/131, Nyniappa Naick Street, Madras 3.

Asiatic Chemical Co.-Madras,

Associated Pharmaceutical Industries Pvt. Ltd.—10, Boag Road, Madras 17.

Anto Pharmaceuticals—1/115, Mount Road, Madras 6.

Ashok Pharmaceuticals-1/503, Mint Street, Madras 3.

Ayurvedashram Ltd.—100, G. N. Chetty Road, Madras 17.
Bahadur Balm Industries—No. 62, Pulianthope High Road, Madras 12.

Bengal Immunity Co. Ltd.—64, Broadway, Madras 1. Chemicals & Plastics (I) Ltd.—175/1, Mount Road,

Madras 2.

Century Chemicals—330, Thambu Chetty Street, Madras 1. Citadel Fine Pharmaceuticals—Main Road, Velacheri, Madras 16.

C. J. Hewlett & Sons (India) Pvt. Ltd.—304/2, Tiruvottiyur High Road, Madras 21.

Dada Drugs & Pharmaceuticals.—86-C, Nyniappa Naicken Street, Madras 3.

Dentone Chemical Works—No. 26, Govindappa Naicken Street, Madras 1.

Dollar Co.—337, Thambu Chetty Street, Madras 1.

East India Pharmaceutical Works Ltd.—18, Second Line Beach, Madras 1.

Fairdeal Corporation P. Ltd.—2, Errabalu Chetty Street, Madras 1.

Glaxo Laboratories (I) Ltd.—Velacheri Road, Madras 32. Hansa Chemical Industry—194, Govindappa Naick Street, Madras 1.

Health Products Concern—222, 3rd Main Road, Gandhinagar, Adyar, Madras 20.

India Chemical & Mineral Industries—271, Linghi Chetty Street, Madras 1.

Indian Health Institute & Laboratory Ltd.—4/149, Broadway, Madras 1.

Indo Agencies Pharma P. Ltd.—67, Dr. Alagappa Chettiar Road, Madras 7.

Indo-French Pharmaceuticals—Post Box 1226, Madras 1.
Indo-Ceylon Dental and Surgical Co. Ltd.—288, Esplanade, Madras 1.

Indo-French Pharmaceutical Company—Catholic Centre, Armenian Street, Madras 1.

Indo-French Manufacturing Co. (Private) Ltd.—Nanganallur, Madras 27.

Intrac Pharmaceuticals P. Ltd.—C-20, Ambattur Industrial Estate, Madras 58.

Jammi Venkatramanayya & Sons—48/1, Royapettah High Road, Madras 4.

Kausalya Pharmaceuticals P. Ltd.—2B/8, Ambattur Industrial Estate, Madras 58.

Kemco Chemical Industries—79, Ambattur Industrial Estate, Madras 58.

Kesari Kuteeram Ltd.—15, Westcott Road, Madras 14.

Little's Oriental Balm & Pharmaceuticals Ltd.—Express Estates, Madras 2.

Lucar Chemical Industries—76, Ambattur Industrial Estate, Madras 58.

Madras Alkali & Chemical Works, Ltd.—31, Alamelumangalpuram, Madras 4.

Madras Industrial Chemical Agencies—7, Second Line Beach, Madras 1.

Martin & Harris Ltd.—312, Thambu Chetty Street, Madras 1.

May & Baker (I) Ltd.—193, Mount Road, Madras 2.

Mount Mettur Pharmaceuticals P. Ltd.—7, Thangal Pettai Road, Madras 41.

New Premier Chemical Industries P. Ltd.—289, Thambu Chetty Street, Madras 1.

Noble Packo-Chems.—Post Box No. 2315, Madras 3.

Padia Chemicals—96, Nyniappa Naick Street, Madras 3.

Palmer Leetz Chemical Co.—1/1, Cross Road, Madres 21. Paramount Laboratories Pvt. Ltd.—343, Bengali Bazar

Road, Alandur, Madras 16. Pfizer Ltd.—16/1, Whites Road, Madras 14.

Pharm Products Ltd.—403, Triplicane High Road, Madras 3.

Pharmaceutical & Research Laboratories—19, Dr. Guruswami Mudaliar Road, Madras 10.

Raptakos Brett & Co. Pvt. Ltd.—27-36, Velacheri Road, Guindy, Madras 16.

Reichhold Chemical India Ltd.—Post Box 1, Madhavaram Milk Colony P.O., Madras 51.

Santha Chemicals Ltd.—438, Poonamallee High Road, Madras 10.

Scientific Chemicals—3/5, Iyappa Pillai Street, Madras 3.
Smith Stanistreet & Co. Ltd.—101/102, Armenian Street, Madras 1.

South Indian Products Ltd.—95, Mundakanniamman Koil Street, Madras 4.

Sreevatss Chemicals & Drugs Ltd.—13, Lakshmi Talkies Road, Madras 30.

Standard Drugs & Chemicals Co.—131, Nyniappa Naick Street, Madras 3.

Standard Pharmaceutical Works Ltd.—79, Sembudoss Street, Madras 1.

Surrise Chemical Industries—12, Periathambi Mudali Street, Madras 7.

Tablets P. Ltd.-114, Mint Street, Madras 1.

Tan India Wattle Extracts Co. Ltd.—9, North Boag Road, T'Nagar, Madras 17.

Tata Fison Industries—94, Ambattur Industrial Estate, Madras 58.

Tedcoy Drug & Chemical Co. Ltd.—377, Thambu Chetty Street, Madras 3.

Teddington Chemical Factory Ltd.-113, Arcot Road, Madras 26.

Thirumal Industrial & Chemical Works-217, Govindappa Naick Street, Madras 1.

United Chemical Works-9-A, Perambur High Road, Madras 12.

United Pharma (I) Ltd.—95, Nyrwappa Naick Street, Madras 3.

Venus Laboratories-4, Desigar Street, Vadapalani, Madras 26.

Veto Company-16, Jones Street, Madras 1.

Vitalone Research Institute P. Ltd.—220, T. H. Road, Tondiarpet, Madras 21.

### CINEMA MACHINERY & EQUIPMENTS

Cinerama Private Ltd.-35, Mount Road, Madras 2. Devi Cine Projector Mfg. Co.-B-6, Industrial Estate, Madras 32.

Shree Venkateswara Engg. Works-3/11, Mount Road,

Madras 2.

## **CROCKERY MERCHANTS**

Abdul Rahim & Bros.—13, Evening Bazar Road, Madras 3. A. K. Shah & Co.-28/29, Evening Bazar, Madras 3.

E. M. Abdulla & Co.-315/318, Netaji S. C. Bose Road, Madras 1.

Indian Glassware Depot-29, Stringers Street, Madras 1. Jamal's Corner Shop-Evening Bazar Road, Madras 3.

J. M. Jamal & Bros.—289, Netaji S. C. Bose Road, Madras 1.

Kassam Chocku & Co.—288, China Bazar Road, Madras 3. K. S. Shivji & Co.—19, Baker Street, Madras 1.

Madras Glassware House.—Evening Bazar, Madras 3.

Mohmed Hussain & Bros.—Rattan Bazar, Madras 3.

Noor Mohmed & Co.-288, China Bazar Road, Madras 3. P. Ali Mohmed Zinna & Co.-67/68, Rattan Bazar, Madras 3.

Peer Mohmed & Co.-287, Netaji S. C. Bose Road, Madras 1.

Poppat Jamal & Sons-182, Broadway, Madras 1. S. Ibrahim & Co.—10, Jones Street, Madras.

#### **CUTLERY MERCHANTS**

Abdulla & Co., E. M.-315/318, N. S. C. Bose Road,

Abdul Rahim & Bros.—13, Evening Bazar Road, Madras 3. A. K. Shah & Co.-28/29, Evening Bazar, Madras 3.

Aluminium Glassware Emporium-289, China Bazar, Madras 3.

Indian Glassware Depot.—29, Stringers Street, Madras 1. Jamal's Corner Shop-Evening Bazar Road, Madras 3. J. M. Jamal & Bros.—289, Netaji Bose Road, Madras 1.

Kassam Chacku & Co.—288, China Bazar, Madras 3.

K. Rajaram & Co.—8, Bunder Street, Madras.

Madras Glassware House-Evening Bazar, Madras 3. Mohmed Hussain & Bros.—Rattan Bazar, Madras 3.

Noor Mohmed & Co.—288, China Bazar, Madras 3.

P. Ali Mohmed Zinna & Co.-67/68, Rattan Bazar, Madras 3.

Peer Mohmed & Co.-3/287, Netaji Bose Road, Madras 3. Poppat Jamal & Sons-Broadway, Madras 1.

S. Ibrahim & Co.-10, Jones Street, Madras.

# DYES & CHEMICAL MERCHANTS

Anil Alkali Agencies-208, Govindappa Naick Street, Madras 1.

Aniline Dyes & Chemicals Co.-209, Govindappa Naick Street, Madras 1.

Aries Agencies-26, Govindappa Naick Street, Madras 1. Arunachalam & Company-75, Mint Street, Madras 1.

Bansali Chemicals-Nainiappa Naick Street, Madras 3.

Batchaji & Company-Ormes Road, Kilpauk, Madras 10. B. Khanna & Co.—41, III Trust Cross Street, Madras 28. C. J. Sheth-2, Bunder Street, Madras 1.

Capco (P) Ltd.-16, Armenian Street, Madras 1.

Chandrabendappa & Sons-213, Govindappa Naick Street. Madras 1.

Dadajii Dackjee & Co.-75, Govindappa Naick Street, Madras 1.

Gemiimpex (P) Ltd.-29, Govindappa Naick Street, Madras 1.

H. Chandarmall & Company—Nayaniappa Naick Street, Madras 3.

Hansa Chemical Industry-197, Govindappa Naick Street. Madras 1.

Harshadray (P) Ltd.—Dhun Buildings, Mount Road, Madras 2

Indira Chemical Agency (P) Ltd.-208, Govindappa Naick Street, Madras 1.

Indian Impex Agency-21, Govindappa Naick Street, Madras 1.

Jeevandas Laljee & Sons-212, Govindappa Naick Street, Madras 1.

Lakshmi Colour Company-20, Govindappa Naick Street, Madras 1.

Lakshmidas Dwarakadoss & Co.—34, Govindappa Naick Street, Madras 1.

Laldas Govindass & Sons-75, Mint Street, Madras 1.

Madras Colour Company-30, Govindappa Naick Street,

Madras Heavy Chemicals-36, Govindappa Naick Street, Madras 1.

Mangilal & Company-201, Govindappa Naick Street, Madras 1.

M. Sreenivasacharlu & Co.—15, Govindappa Naick Street, Madras 1.

M. Patel & Sons-5, Godown Street, Madras 1.

N. Chandramouli & Co.-26, Govindappa Naick Street, Madras 1.

Nanavati & Company-21, Govindappa Naick Street, Madras 1.

Narayan & Company-56, Bunder Street, Madras 1.

P. K. Japee & Company-97, Nayaniappa Naick Street, Madras 3.

P. S. Narayanan & Company-47, Govindappa Naick Street, Madras 1.

Premier Traders—Luckmadoss Street, Madras 3.

Ramnath & Company—Angappa Naick Street, Madras 1. Raveendra & Company-217, Govindappa Naick Street, Madras 1.

S. Devichand & Company-32, Govindappa Naick Street, Madras 1.

Sha Roopehand & Company-28/A, Govindappa Naick Street, Madras 1.

Sreedhar Chemical Corporation-208, Govindappa Naick Street, Madras 1.

Sri Krishna Dyes & Chemicals—18, Govindappa Naick Street, Madras I.

S. S. Mehta & Company—197, Govindappa Naick Street, Madras 1.

Sudha Dyes & Chemicals—Hanumant Lala Street, Madras 5.

T. T. Krishnamachari & Co.—333, Thambu Chetty Street, Madras 1.

Varjeevandas Hirjee & Co.—197, Govindappa Naick Street, Madras 1.

W. Dorairajulu Chetty & Sons—201, Govindappa Naick Street, Madras 1.

## **ELECTRICAL GOODS AND APPLIANCES**

All India Electric Co.—93, Perumal Mudali Street, Madras 1.

Allied Electricals (India)—203, Thambu Chetty Street, Madras 1.

Alvitta Electricals P. Ltd.—A-6, Ambattur Ind. Estate, Madras 58.

Amalgamations Private Ltd.—202, Mount Road, Madras 2. Andhra Electric Co.—115A, China Bazar, Madras 1.

Asea Electric India P. Ltd.—Mercantile Bank Bldg., First Line Beach, Madras 1.

Ashok Electric Co.—8/2, Govindappa Naick Street, Madras 1.

Associated Electrical Industries (India) Ltd.—35/5, Mount Road, Madras 2.

Associated Electricals—12-A, Linghi Chetty Street, Madras 1.

Atlas Electric Corporation—19, Govindappa Naicken Street, Madras 1.

Auto Electric & Aeronauticals—276, Linghi Chetty Street, Madras 1.

Bajaj Electricals Ltd.-3/33, Mount Road, Madras 2.

Baliga Lighting Equipment P. Ltd.—C-39-40, Industrial Estate, Madras 32.

Bharat Electricals—17, Thambu Chetty Street, Madras 1.

Bhatia Electric Corporation—26, Thambu Chetty Street, Madras 1.

Central Electricals-406, Mint Street, Madras 1.

City Electric Stores—133/139, Devaraja Mudali Street, Madras 3.

Chicago Telephone & Radio Co. Ltd.—196, Mount Road, Madras 2.

Current Electricals—4, Brindhavan Street, Mylapore, Madras 4.

Diamond Electricals-97, Mint Street, Madras 1.

Eastern Electric Co.—Second Line Beach, Madras 1.

Electrical Accessories Private Limited—C, 5 & 6, Industrial Estate, Guindy, Madras 32.

Electrical & General Supply Co.—17-C, Broadway, Madras 1.

Electrical Engineering Equipment Co.—4, Errabalu Chetty Street, Madras 1.

Electro Industries—39, North Mada Street, Madras 4.

Electronics International—4-A, Smith Road, Madras 2.

Esplanade Electric Co.—5-A, Sembudoss Street, Madras 1. Forma Brothers—392, Mint Street, Madras 1.

Gammies Private Ltd.—121, Lloyds Road, Madras 6.

Ganesh Flour Mills Co. Ltd.—2, Thambu Chetty Street, Madras I.

Gemco Electrical Mfg. Co.—297, Linghi Chetty Street, Madras 1.

General Electric Co. of India Private Ltd.—Magnet House, Mount Road, Madras 2.

Hackbridge Hewittic & Easun Private Ltd.—5/7, Second Line Beach, Madras 1.

Hivelm Industries P. Ltd.—A-5 & 6, Industrial Estate, Guindy, Madras 32. Ideal Electrical Industries—52, N. S. C. Bose Road, Madras 1.

Imperial Electricals (Madras)—24/25, Madavakam Tank Road, Madras 10.

Indian Cable & Wire Industries Private Ltd.—Inca Estate, Sembakkam, Madras 4.

India Electric Works Ltd.—101/102, Armenian Street, Madras I.

Indo Combines Private Ltd.—336, Thambu Chetty Street, Madras 1.

International General Electric Co. Ltd.—36B, Mount Road, Madras 2.

International Lighting Industries—26, Arumugam Street, Madras 1.

J. C. Electricals-26, Nannian Street, Madras 7.

Jemco P. Ltd.—Super B-3, Industrial Estate, Guindy, Madras 32.

Kappa Electricals—No. 10, Mount Road, Saidapet, Madras 15.

Kel Components P. Ltd.—B·13, Ambattur Industrial Estate, Madras 58.

K. R. Kothandaraman & Co. P. Ltd.—116/117, Moore Street, Madras 1.

Kumar Brothers—61, Netaji Subhas Chandra Bose Road, Madras 1.

 ${\bf Leo~Enterprises-87/91,~Devaraja~Mudali~Street,~Madras~1.}$ 

Madras Electricals Ltd.—55/57, Rattan Bazar, Madras 3.

Madras Elect. Mfg. Co.—FC-5, Ambattur Industrial
Estate, Madras 58.

Madras Electric Trades and Agencies—6/12, Luz Church Road, Madras 4.

Madras Electrical Industries Ltd.—310, Linghi Chetty Street, Madras 1.

Madras Electricals Private Ltd.—FC/5, Ambattur Ind. Estate, Madras 58.

Mahaveer Electric Corporation—19, Govindappa Naick Street, Madras 1.

Maheshwari Electric Corporation—26, Veerappan Street,

Malik Electricals P. Ltd.—108, Mount Road, Madras 18. Modern Electric Co.—301, Linghi Chetty Street, Madras 1. Modi Electric Mfg. Co.—A-10, Ambattur Industrial Estate,

Modi & Modi-11, Linghi Chetty Street, Madras 1.

Madras 58.

Modi Electric Corporation—125, N. S. C. Bose Road, Madras 1.

Mohd. Ebrahim & Co. (P) Ltd.—7/8, Mount Road, Madras 2.

Murugan Electricals—8, Brunton Cotton Press Road, Madras 18.

Musa & Sons (P) Ltd.—106, Armenian Street, Madras 1. National Electricals—B-10/A, Ambattur Industrial Estate,

Madras 58.

Neo Hindustan Electricals—102, Mowbrays Road,

Neo Hindustan Electricals—102, Mowbrays Road, Madras 18.

Omega Indulated Cable Co. India Pvt. Ltd.—1-A, Nungambakkam High Road, Madras 34.

Orient Electricals.—170, N.S.C. Bose Road, Madras 1. Oriental Electric Corporation—33, 1st Floor, Nainiappa

Maistry Street, Madras 3.

Patel Electric Company Private Ltd.—18, Govindappa

Naick Street, Madras 1.
Pioneer Elect. P. Ltd.—F-9, Ambattur Industrial Estate,
Madras 58.

P. Govindaraj & Sons P. Ltd.—44, S. Theagaraja Road, Madras 17.

P. Natesan Industries P. Ltd.—191, Triplicane High Road-Madras 5.

Popular Electricals.—69, Walltax Road, Madras 3.

Premier Auto Electrie P. Ltd.—4, Pattulos Road, Madras 2.

Radio & Electricals Ltd.—8/1, Victoria Crescent Road, Madras 8.

Raj Cable Industries—297, Linghi Chetty Street, Madras 1. Rathna Electricals—11, Pondy Bazaar, Madras 17.

Revathi Agencies-4, Stringers Street, Madras 1.

Samdaria Electricals—15, Veerappan Street, Madras 1.

Sakthi Electricals—6, Tholasingam Street, Sowcarpet, Madras 1.

Saral Industries—B-20, Ambattur Industrial Estate, Madras 58.

Sathya Electricals—13, Sivagnanam Road, Madras 17.

S. B. Electric Mart Ltd.—175, Netaji Subhas Road, Madras 1.

Scott & Pickstock P. Ltd.—6, Armenian Street, Madras 1. Seeyensee & Co.—55, Anderson Street, Madras 1.

Sethuram Thiagarajan & Co.—175/1, Mount Road, Madras 2.

Shenoy Electrical Indu. tries.—K2, Ind. Estate, Vyasarpadi, Madras 39.

Shibsha Instruments—D-12, A, Ambattur Industrial Estate, Madras 58.

Shree Nursing Sahay Mudungopal Electric Co. P. Ltd.— 108, Mint Street, Madras 1.

Southern General Electro Combines—D-12, Ambattur Industrial Estate, Madras 58.

Southern Switchgear Ltd.—Finance House, Pattulos Road, Madras 6.

South India Electricals-115, Mint Street, Madras 1.

Standard Electric Co.—27, General Patters Road, Madras 2.

Star Electric Corporation—13, Ravanier Street, Madras 3.
 Swastik Electric Co.—2/105, Armenian Street, Madras 1.
 Transformer & Switchgear Ltd.—116/117, Moore Street, Madras 1.

Tube Lights P. Ltd.—3, Stringers Street, Madras 1.

Umatt Engineering & Instruments Corporation—302, Linghi Chetty Street, Madras 1.

Vijay Electricals—B-10B, Ambattur Industrial Estate, Madras 58.

Westrex Company India-35, Mount Road, Madras 2.

## **FERTILISERS**

Gemini Fertilisers.—5th Cross Street, Kodambakkam, Madras 24.

I. C. I. (India) Private Ltd.—Bombay Mutual Bldg., N. S. Bose Road, Madras 1.

Indian Potash Supply Agency Ltd.—8/9, Thambu Chetty Street, Madras 1.

Madras Fertilisers Ltd.—19, Commander-in-Chief Road, Madras 8.

Mysore Fertiliser Co.—Andhra Bank Bldg., 6, Linghi Chetty Street, Madras 1.

Parry & Co. Ltd.—"Dare House", First Line Beach, Madras 1.

Peninsular Bonemill—28/29, Coral Merchant Street, Madras 1.

Premier Fertilisers Ltd.—151, Mount Road, Madras 2.

Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1. Scientific Fertiliser Co. Ltd.—13/14, Second Line Beach, Madras 1.

Shaw Wallace & Co. Ltd.—8/9, Thambu Chetty Street, Madras 1.

## FOUNTAIN PENS, NIBS & SPARES

Gem & Co.—225-226, Netaji Subhas Chandra Bose Road, Madras 1.

Geneve Pen Industries—32, Reddy Raman Street, Madras 1.

Globe Industries—7, Gopal Das Road, Madras 2.

Gujarat Industries P. Ltd.—20, Kasi Chetty Street, Madras 1.

Loyal Pen Company—23, Errabalu Chetty Street, Madras 1.

 Pen Spares Mfg. Co.—A-12, Industrial Estate, Madras 32.
 Pilot Pen Co. (India) Private Ltd.—Catholic Centre, Armenian Street, Madras 1.

Regal Products P. Ltd.—186, Royapettah High Road, Madras 14.

Shelat Brothers—8, Lakmudas Street, Madras 3.

## HANDLOOM MERCHANTS & EXPORTERS

Abdin Textiles—223, Angappa Naick Street, Madras 1.

A. Brunnschweiler & Co.—53, North Beach Road, Madras 1.

Adhithan Palayakat Co.—25, Mallan Ponnappa Mudali Street, Madras 5.

Amin & Co.—233, Angappa Naick Street, G. T., Madras I.
Athithan Palayakat Co.—25, Mallapan Mudali Street, Madras 5.

A. V. Malliah Chettiar & Sons—5, Ramaswamy Street, Madras 1.

A. R. Panchatchara Mudaliar & Bro.—13, Karpavinayagar Street, Madras 16.

Asoka Palayakat Co.—253, Thambu Chetty Street, Madras I.

Bharat Handloom Textiles—92, Gafoor Street, Triplicane, Madras 5.

Bismillah Palayakat Co.—72, Angappa Naick Street, Madras 1.

Chellarams—86, Wallajah Road, Mount Road, Madras 2. Chettysons—28, Mint Subraylulu Naidu Street, Madras 21.

Far East Mercantile Co.—764/765, Triplicane High Road, Madras 5.

Geetha Handloom Exporters—23, Arumuga Mudali Street,
Madras 21.

India Famous Pulicat Co.—29, Armenian Street, Madras 1.
Indo-Afrasian Exports—114, Singanna Chetty Street, Madras 2.

Indolanka Traders—38, Linghi Chetty Street, Madras 1. International Exporters Corpn.—87, Narayana Mudali Street, Madras 1.

K. V. Subbaraya Chetty Sons—96, Linghi Chetty Street, Madras 1.

Kewalram G. Pvt. Ltd.—33, Arunachala Naicken Street, Madras 2.

Kishinchand Chellaram—11, Narasingapuram Street, Mount Road, Madras 2.

K. S. Thangavelu Mudaliar & Co.—3, Bajanai Koil Street, Thirumalisai, Madras 56.

Koranad Fabrics—58, II Main Road, Gandhinagar, Adyar, Madras 20.

M. A. B. Abumuhamed Sahib & Bros.—70, Armenian Street, Madras 1. M. M. Mohamed & Co.—32, Angappa Naick Street, Madras 1.

M. M. Naina & Co.—251, Linghi Chetty Street, Madras 1.
Madras Textile P. Ltd.—19/20, Arumuga Mudali Street, Madras 21.

Malabar Handloom Textiles—24, Godown Street, Madras 1.

Mani & Co.—243, Linghi Chetty Street, G. T., Madras 1.
Mohamed Aboobacker & Co.—95, Thambu Chetty Street, Madras 1.

Moulana Co. (Private) Ltd.—52, Angappa Naick Street, Madras 1.

M. R. K. Industries—217, Angappa Naick Street, Madras 1. Natarajan & Co.—251, Lingi Chetty Street, Madras 1.

Original Pulicat Co.—1/28, Godown Street, Madras 1. Overseas Trading Corpn.—94, Linghi Chetty Street, G. T., Madras 1.

P. T. Siramulu Chetty & Bros.—36, Arumuga Mudali Street, Madras 21.

Samy Iyer Palayakat Co.—66, Armenian Street, Madras 1. Saraswathi & Co.—148, Coral Merchant Street, Madras 1. Selvam Lungi Co.—59, Old Mambalam Road, Saidapet, Madras 15.

Simmons Company—3, Somasunderadevar 6th Street, Ayanavaram, Madras 23.

S. M. Meera Sahib & Co.—284, Linghi Chetty Street, Madras 1.

South Indian Trading Co.—68, Thambu Chetty Street, Madras 1.

Tamilnad Handloom Weavers' Co-operative Society Ltd.—34/1-A, Pantheon Road, Egmore, Madras 8.

Textile India Agencies—19, Langs Gardan Road, Pedupet, Madras 2.

Thirumagal Lunghi Co.—1, Savari Muthu Street, Mannady, Madras 1.

Uma Palayakat Co.—139, Coral Merchants Street, Mannady, Madras 1.

United Enterprises—9, Balumuthu Street, Madras 2.

United Trading Co.—50, Nagappa Iyer Street, Triplicane, Madras 5.

V. Manivedachala Mudaliar & Co.—26, Gangaikonda Mandapam, Thirumalisai, Madras 56.

Veenus Fabrics—3/16, C. R. Chetty Street, Madras 3. Vibgyor Fabrics—68, Thambu Chetty Street, Madras 1.

V. Govindamudaliar Sons—23, Jones Street, Madras 1.

## HARDWARE & PAINT MERCHANTS

Abdullah & Bros.—23, Venkatachala Mudali Street, Madras 3.

Abdul Hussain & Co.—14, Rasappa Chetty Street, Madras 3.

A. M. Goolamally & Co.—20, Errabalu Chetty Street, Madras 1.

Ahmedally Hasanally & Co.—4/153-D, Broadway, Madras 1.

Akbar & Co.—36, Venkatachala Mudali Street, Madras 3.
 A. Bashyam & Co.—11, Venkatachala Mudali Street, Madras 3.

A. C. Swamy & Son—119, Thiruvottiyur High Road, Madras 21.

A. K. G. Samy & Co.—8A, Venkatachala Mudali Street, Madras 3.

A. S. Manikam & Co.—46, Venkatachala Mudali Street, Madras 3. A. Nathamoony Chetty & Co.—32, Venkatachala Mudali Street, Madras 3.

A. Sarangapani & Co.—42, Venkatachala Mudali Street, Madras 3.

Balaji Bros.—35, Venkatachala Mudali Street, Madras 3.

Bamboot & Bros.—26, Venkatachala Mudali Street,
Madras 3.

B. Cunniah & Co.—7, Venkatachala Mudali Street, Madras 3.

Chandramohan Bros.—27, Venkatachala Mudali Street, Madras 3.

City Hardware Mart—17, General Patters Road, Mount Road, Madras 2.

Commerce Universals—54, Linghi Chetty Street, Madras 1. Crescent Hardwares—266, Rasappa Chetty Street, Madras 3.

Dharampal Gupta & Bros.—31, Venkatachala Mudali Street, Madras 3.

D. P. Shah & Co.—227, Rasappa Chetty Street, Madras 3.
 D. Radhakrishna Chetty & Co.—38, Venkatachala Mudali Street, Madras 3.

E. A. Alimohamed & Co.—340-342, Rasappa Chetty Street, Madras 3.

Eswary & Co.—8, Lodd Govindas Nagar Road, Madras 2. Excel Paint Corporation—84, Sydenhams Road, Madras 7. Excelsior Hardware Stores—354-355, Rasappa Chetty Street, Madras 3.

Fida-Ali & Sons—3/44, Venkatachala Mudali Street, Madras 3.

F. Saifuddin & Co.—1/2, Venkatachala Mudali Street, Madras 3.

G. D. Sekar & Co.-134, Mount Road, Madras 2.

G. Kannappa & Sons—306-307, Rasappa Chetty Street, Madras 3.

Goodwill Hardware Stores—19, Venkatachala Mudali Street, Madras 3.

G. Subbaratnam Chetty & Sons—30/30A, Rasappa Chetty Street, Madras 3.

H. Rasoolbhoy & Co.—265, Devaraja Mudali Street, Madras 3.

Hussain Abbas & Co.—1/43, Venkatachala Mudali Street, Madras 3.

Hind Hardware Company—20, Venkatachala Mudali Street, Madras 3.

Jaya Stores—1/66, Rasappa Chetty Street, Madras 3.

Jaya Traders—25, Venkatachala Mudali Street, Madras 3. Jayaram & Co.—29, Venkatachala Mudali Street, Madras 3.

J. Hanumaiah Chetty & Co.—27, Rasappa Chetty Street, Madras 3.

J. Narasimhulu Chetty & Co.—27/29, Rasappa Chetty Street, Madras 3.

Kasims Trading Corporation—26, Sembudoss Street, Madras 1.

K. K. Sabapathy & Co.—316, Rasappa Chetty Street, Madras 3.

Lakshmi & Co.—14, Venkatachala Mudali Street, Madras 3.
Madras Hardware Agency—11, Venkatachala Mudali Street, Madras 3.

Madras Hardware Mart—2/28, Devaraja Mudali Street, Madras 3.

Madras Steel & Hardware Co.—98, Rasappa Chetty Street, Madras 3.

M. Cunniah & Co.—25, Venkatachala Mudali Street, Madras 3.

M. Khandaswamy & Sons—47, Venkatachala Mudali Street, Madras 3. M. S. Shankar & Co.-19, Venkatachala Mudali Street, Madras 3.

M. M. Abbas & Bros.—7, Sembudoss Street, Madras 1. N. Chockkalingam & Co.—5, Venkatachala Mudali Street,

N. S. S. Shaik Abdul Khader & Co.-2, Pillaiyar Koil Street. Madras 5.

Narayanee & Co.—55, Malayappan Street, Madras 1.

National & Paint & Varnish Industries—178-79, Rasappa Chetty Street, Madras 3. Pauls Chemicals Corpn.—75, General Patters Road, Mount

Road, Madras 2.

Pearlson & Co.-1, Evening Bazar Road, Madras 3.

P. M. Dasaratha Chetty & Bros.-17, Venkatachala Mudali Street, Madras 3.

M. Purushotham-317, Rasappa Chetty Street, Madras 3.

Rajagopalan & Co.-9, Venkatachala Mudali Street, Madras 3.

Ramani Paint & Varnishes-58, Guindy Road, Sriramnagar, Adyar, Madras 20.

R. G. Swamy & Bros.-No. 7, Iron Monger Street, Madras 3.

Royal Hardware Mart-30, Devaraja Mudali Street, Madras 3.

S. V. Ambal & Co.—319-322, Rasappa Chetty Street, Madras 3.

S. Ganesham & Son-1/44, Venkatachala Mudali Street, Madras 3.

S. Kuppuswamy & Co.—28, Venkatachala Mudali Street, Madras 3.

S. S. Mani & Co.—60, Rasappa Chetty Street, Madras 3. Santram & Sons-10, Venkatachala Mudali Street, Madras 3.

S. F. Taiyabally & Co.—42, Venkatachala Mudali Street, Madras 3.

Safety Hardware Mart-12/14, Rasappa Chetty Street, Madras 3.

Shanti & Co.-14-B, Venkatachala Mudali Street, Madras 3.

Sanjeevi Paint, Pigment, & Varnish Co.—Ennore R. S. Madras 57.

Sri Bharathalakshmi & Co.-2/44, Venkatachala Mudali Street, Madras 3.

Sri Devi & Co.—33, Venkatachala Mudali Street, Madras 3. Sri Durga & Co.-34, Venkatachala Mudali Street, Madras 3.

Sri Ethiraj & Co.-2/30 Venkatachala Mudali Street, Madras 3.

Sri Gautami Industries-84, Sydenhams Road, Apparao Garden Choolai, Madras 7.

Sri Seetharam & Co.-21-22, Rasappa Chetty Street, Madras 3.

Sri Sarathy Hardware Stores-15, Venkatachala Mudali Street, Madras 3.

Sri Lakshmi & Co.-64/65, Rasappa Chetty Street, Madras 3.

Sultan Metal Corpn.—26, Venkatachala Mudali Street, Madras 3.

Swathy Hardware Mart-356/357, Rasappa Chetty Street, Madras 3.

Suresh & Co.-1/39, Venkatachala Mudali Street, Madras 3. Sundara Paint Products-69, Guruvappa Chetty Street, Chintadripet, Madras 2.

Southern Corporation-19, Venkatachala Mudali Street.

Sri Durga & Co.-34, Venkatachala Mudali Street. Madras 3.

T. Chinappa Chettiar & Sons-52/81, Bazaar Road, Mylapore, Madras 4.

T. G. Segaran & Co.-39, Venkatachala Mudali Street, Madras 3.

T. G. R. & Co.—8A-10, Venkatachala Mudali Street. Madras 3.

T. S. Fida-Ali & Co.-343-344, Rasappa Chetty Street, Madras 3.

Universal Corpn. (India)—23, Gande Road, Near B & C Mills, Madras 12.

U. Raghavelu Chetty & Son-13, Venkatachala Mudali Street, Madras 3.

V. A. Puniappa Nadar & Co.—2/37, Venkatachala Mudali Street, Madras 3.

V. Kanakiah Chetty & Co.—148, Nyniappa Naicken Street, Madras 3.

V. Parthasarathy Naidu & Sons-130-131, Pycrofts Road, Jam Bazar, Madras 5.

W. Lakshmanaperumal Chetty & Co.-6, Venkatachala Mudali Street, Madras 3.

#### LEATHER GOODS

Chrome Leather Co. (Private) Ltd.—Chromepet, Madras 44. Diamond Leather Goods Co.-20, Ramaswamy Street, Madras 17.

Gordon Woodroffe Leather Mfg. Co. (Private) Ltd.-1-21, North Beach Road, Madras 1.

India Leather Corpn. P. Ltd .- 9, Davidson Street,

Jai Hind Leather Products-60/61, Broadway, Madras 1. Jayam Trading Co.-26, Kattur Sadayappan Street, Madras 3.

Tullis Woodrofee & Co. (Private) Ltd.—1/21, North Beach Road, Madras 1.

## MACHINERY MANUFACTURERS AND DEALERS

Addepally P. Ltd.—Engg. Works, 31, Subedar Hussain Street, Madras 14.

Armcess Engineers P. Ltd.—A-Super 8/9, Industrial Estate, Madras 32.

Armeess Gauge & Tool Co. P. Ltd.—A-3, Ambattur Industrial Estate, Madras 58.

Best & Co. Mfrs. P. Ltd.—A-8, Ambattur Industrial Estate, Madras 58.

Bombay Co. Ltd.—169, Broadway, Madras 1.

Bombay Engineering Works-8, Sunkurama Chetty Street, Madras 1.

Boolani Engineering Corporation.—288, Linghi Chetty Street, Madras 1.

Brady, W. H. & Co. Ltd.—154/155, Pophams, Broadway, Madras 1.

British & Eastern Engg. Co.—16, General Patters Road, Mount Road, Madras 2.

British Machinery Supplies Co.-136, Mount Road, Madras 6.

Diamond Engineering Co .- 6, Errabalu Chetty Street, Madras 1.

East Asiatic Co. (I) Ltd.—Bharat Bldg., Mount Road, Madras 2.

East Coast Constructions & Industries-1, Moores Road, Nungambakkam, Madras 6.

Eastern Machinery & Trading Co.-193, Mount Road, Madras 2.

Easun Engineering Co. Ltd.-5/7, Second Line Beach,

Emco Engg. Industries-G-4, Ambattur Industrial Estate, Madras 58.

Engineering Services Corpn.—52, Ambattur Industrial Estate, Madras 58.

Essor Engineering Works—53, Sydenhams Road, Periamet, Madras 3.

Es-Tee Engg. Co. P. Ltd.—C-8, Ambattur Industrial Estate, Madras 58.

Everest Metal Industries P. Ltd.—B-4 Industrial Estate, Guindy, Madras 32.

General Machinery & Spares Corporation—B-3, Industrial Estate, Guindy, Madras 32.

Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.

Grafex Machinery Co.—92/2A, Mount Road, Madras 18.

Greaves Cotton & Co. Ltd.—19, Second Line Beach, Madras 1.

Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2.
Guindy Machine Tools P. Ltd.—Pallikaranai, Medavak-kam, Madras 45.

Heatly & Gresham Ltd.—Bombay Mutual Bldg., Esplanade, Madras 1.

Indian Oxygen Ltd.—7/A, Vaithianatha Mudali Street, Madras 21.

Instruments & Apparatus P. Ltd.—D-20, Ambattur Industrial Estate, Madras 58.

Jayems Engineering Co.—317, Thambu Chetty Street, Madras 1.

K. C. P. Limited-Madras 19.

Kilburn & Co. Ltd.—153, Mount Road, Madras 2.

Kothandaraman, K. R. & Co. P. Ltd.—116/117, Moore Street, Madras 1.

Krishna Industries-6, Bazallula Road, Madras 17.

Kunal Engg. Co. Ltd.—22, Ambattur Industrial Estate, Madras 58.

Lantis Machines P. Ltd. D-9, Ambattur Industrial Estate, Madras 58.

Larsen & Toubro Ltd.—4/5, Club House Road, Madras 2.
Machine Tools & Accessories P. Ltd.—10/9, Ambattur Industrial Estate, Madras 58.

Madras Spindle Co. Ltd.—B-18, Ambattur Industrial Estate, Madras 58.

Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Second Line Beach, Madras 1.

Masseys Engineers—4B/4C, North Rly. Terminus Road, Royapuram, Madras 13.

Mohsin & Company-112, Mannady Street, Madras 1.

National Engineering Co. (Madras) Ltd.—379, Netaji Subhas Chandra Bose Road, Madras 1.

National Engg. Corporation—302, Linghi Chetty Street, Madras 1.

Productivity Elements—B-14, Ambattur Industrial Estate, Madras 58.

Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street,

Saganla Engineers—2, Lattice Bridge Road, Adyar, Madras 20.

Shairsons-189-B, Mount Road, Madras 2.

Southern Forgings P. Ltd.—A 17 & 18, Industrial Estate, Madras 32.

Sri Rama Machinery Corpn. P. Ltd.—5/6, Armenian Street, Madras 1.

S. S. Engineering Works—301, Thiruvotiyur High Road, Madras 21.

Standard Machine Tools—B-3, Ambattur Industrial Estate, Bombay 58.

Standard Printing and Machine Co.—D-11, Ambattur Industrial Estate, Madras 58.

Steadfast Enterprises—D-7, Ambattur Industrial Estate, Madras 58. Taylor, T. A. & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.

Thadhani Engg. Works P. Ltd.—B-6, Ambattur Industrial Estate, Madras 58.

Voltas Limited—115/116, Armenian Street, Madras I. William Jacks & Co. I. P. Ltd.—National Bank Bldg

William Jacks & Co. I. P. Ltd.—National Bank Bldg., First Line Beach, Madras 1.

### METALS (BRASS, IRON AND STEEL)

East India Industries (Madras) Private Ltd.—498, Mint Street, Madras 3.

Hindustan Metal Refinery & Rolling Mills—124, Mint Street, Madras.

Indian Metal & Metallurgical Corpn.—498, Mint Street, Madras 3.

Jairamdas & Sons—23, Errabalu Chetty Street, Madras 1.

McDowell & Co. Ltd.—Second Line Beach, Madras 1.

Metallizers P. Ltd.—C-28, Industrial Estate, Madras 32.

Mysore Premier Metal Factory—127, Mint Street, Madras 1.

Parry & Co. Ltd.—"Dare House", First Line Beach,
Madras 1.

Richardson & Cruddas Ltd.—First Line Beach, Madras 1. Roberts Mclean & Co. Ltd.—32, Greaves Road, Madras 6. Vernon & Co. Ltd.—11/12, Car Street, Madras 1.

Willam Jacks & Co. I. P. Ltd.—National Bank Building, First Line Beach, Madras 1.

## NON-FERROUS METALWARE MFRS. & DEALERS

A. P. M. Syed Ebrahim Sahib & Bros.—11/12, Lubbai Street, Pudupet, Madras 2.

Ambika Metal Emporium—No. 11, Genguraman Street, Madras 3.

Babulal Metal Stores—28, Raghunayakulu Street, Madras 3.

General Metal Trading Co.—182/83, Nyniappa Naicken Street, Madras 1.

Hindustan Metals—22, Hanumantharayan Koil Street, Madras 3.

Indian Metal Stores—9, Vengu Chetty Lane, Madras 3.
Indo Metal Industries—23, Errabalu Chetty St., Madras 1.
Jaihind Metal Works & Rolling Mills—24, Mint Street, Madras 3.

Jain Metal Rolling Mills—No. 9, Genguraman Street, Madras 3.

K. Selvarajan—22, Perumal Mudali Street, Madras 3.

Karpaga Metal Stores—79, Mullah Sahib Street, Madras 3.

Madras Metal Rolling Mills—4, Nyniappa Naicken Street, Madras 3.

Mahaveer Metal Industries—106, Audiappa Naicken Street, Madras 1.

Mardia & Co.—28, Mooker Nallamuthu Street, Madras 1. Malaya Metal Mart—508, Mint Street, Madras 3.

Mathi Metal Co.—No. 29, Telugu Chetty Street, Madras 21.
Megraj Metal Rolling Mills—No. 7, Genguraman Street,
Madras 3.

Metal Traders Corporation—No. 4, Nyniappa Maistry Street, Madras 3.

Narendra Metal Mart, 31, Raghunayakulu Street, Madras 3.

Madras 3.

National Fasterners Private Ltd.—B. Super 1, Industrial Estate, Guindy, Madras 32.

P. A. Chellamani & Co.—143, Nyniappa Naicken Street, Madras 3.

P. S. N. S. Ambalavana Chettiar & Co. Pvt. Ltd.—14, Mint Street, Madras 3.

Rajasthan Metal House-453, Mint Street, Madras 3.

Ramesh Metal Stores—26, Samudra Mudali Street, Madras 3.

Saraswathi Metal Stores—Hanumantharayan Koil Street, Madras 3.

Seelan Metal Corporation—105, Suryanarayana Chetty Street, Madras 13.

Shah Motilal & Co.—16, Samudra Mudali Street, Madras 3. Sree Vadivudaiambal Stores—No. 1-A, Genguraman Street, Madras 3.

Star Metal Co.—32, West Cemetery Road, Madras 21.
Suresh Kumar & Co. D.—21, Raghunayakulu Street,
Madras 3.

T. Babulal & Co.—No. 12, Luckmandoss Street, Madras 3. Tambawala Products Agencies P. Ltd.—13, Singanna Naick Street, Madras 1.

Thulasi Metal Stores—95, Angalamman Koil Street, Madras 7.

## PAINTS, ENAMELS AND VARNISHES, ETC.

A. Bashyam & Co.—11, Venkatachala Mudali Street, Madras 3.

Addisons Paints & Chemicals Ltd.—Sembiam, Madras 11.

Amalgamations Private Ltd.—202, Mount Road, Madras 2.

Anuradha Private Ltd.—53, Peter's Road, Madras 6.

A. S. Manickam & Co.—46, V. Mudali Street, Madras 3.

Asian Paints (I) P. Ltd.—4A, Smith Road, Madras 2.

Blundell Eomite Paints Ltd.—21, Thambu Chetty Street, Madras I.

British Paints (I) Ltd.—23, Haddows Road, Madras 6.
Cellulose Products Co.—7-A, Singanna Naick Street,
Madras 1.

Chandra Paints (Madras) P. Ltd.—5, Maclean Street, Madras 1.

Chemi Colour Industries P. Ltd.—75, General Patters Road, Madras 2.

Chiranjilal Daga-109, Mint Street, Madras 1.

East India Paint & Chemical Works Ltd.—19/3, Armenian Street, Madras 1.

Gillander's Arbuthnot & Co. Ltd.—3, North Beach Road, Madras 1.

Goodlass Nerolac Paint P. Ltd.—23, Perianna Maistry Street, Madras 1.

Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.

Hoyle's Paints Ltd.-2/29, Mount Road, Madras 2.

Jenson & Nicholson (I) Ltd.—7, Armenian Street, Madras 1.

John Fleming & Co. P. Ltd.—280, Linghi Chetty Street, Madras 1.

Kapadia Paints & Allied Industries—67, Ambattur Industrial Estate, Madras 58.

London Varnish & Enamel Co. Ltd.—7, Armenian Street, Madras 1.

Mehta Paint Works—C-15, Ambattur Industrial Estate, Madras 58.

N. Chokkalingam & Co.—62/63, Rasappachetty Street, Madras 3.

Ravi Paints & Chemicals Ltd.—85-87, Armenian Street, Madras 1.

S. D. Rangwalla & Co.—289, Linghy Chetty Street, Madras 1.

Shalimar Paints Ltd.—11/12, Second Line Beach, Madras 1.

Shaw Wallace & Co. Ltd.—8/9, Thambu Chetty Street, Madras 1. Snow White Industrial Corporation—109, Netaji Subhas Road, Madras 1.

Sundra Paint Products—69, Guruvappa Chetty Street, Madras 2.

Western India Paint & Colour Co.—19, Venkatachala Mudali Street, Madras 3.

#### PAPER MERCHANTS

Annamalai & Co.—23, Badrian Street, Madras 1.

Anuradha Private Ltd.—53, Peter's Road, Madras 6.
A. S. Annamalai Chettiar & Co.—15, Anderson Street,

Madras I.

Associated Sales of India—2, Anderson Street, Madras 1.

Associated Sales of India—2, Anderson Street, Madras 1.

Bharathiram & Co.—39, Natchiappa Chetty Street,
Madras 4.

Bhimani Paper Bag Works—40, Anderson Street, Madras 1.

Chas. Morgan & Co. Ltd.—314/15, Linghi Chetty Street, Madras 1.

Chettiar & Co.-1/52, Anderson Street, Madras 1.

C. J. Sheth-Bunder Street, Madras 1.

Commonwealth Sales Corporation—3, Sunkurama Chetty Street, Madras 1.

Continental Corporation-22, Broadway, Madras 1.

Copparam Natesan Chetty & Co.—59, Anderson Street, Madras 1.

C. Sanjeevi Chetty Co.—56, Bunder Street, Madras 1.

East & West Trading Co.—98-A, Armenian Street, Madras 1.

Eastern Mercantiles 41, Anderson Street, Madras 1.

E. Subbiah Pillai Sons—26, Sembudoss Street, Madras 1. Fakhari Traders—61/5, Malaya Perumal Street, Madras 1. Ganga Paper Stores (P) Ltd.—20, Baker Street, Madras 1.

Gany & Co.—16, Armenian Street, Madras 1.

General Papers Ltd.—16, Armenian Street, Madras.

Gomraj & Sons—1, Narayana Mudali Street, Madras 1. Hindustan Import & Export Corporation—173, Broadway, Madras 1.

Indo-Burma Stationery & Paper Stores—12, Umpherson Street, Madras 1.

International Paper Co.—1-E, Anderson Street, Madras 1.
Jai Dayal Kapur & Sons (P) Ltd.—2, Anderson Street, Madras 1.

J. B. Advani & Co. (P) Ltd.—98, Armenian Street, Madras 1.

Jeyam & Co.—43/44, Anderson Street, Madras 1. Jubilee Traders—17, Anderson Street, Madras 1. J. B. Paper Co.—50, Badrian Street, Madras 1.

K. A. Seshadri Aiyangar & Sons—2-B, Malayaperumal Street, Madras 1.

K. L. N. Paper Traders—289, N. S. C. Bose Road,

K. Orr & Co.-16, Stringers Street, Madras 1.

K. Venkataraman & Co.—23-A, Anderson Street, Madras 1.

Lakshmiah Papers—7/8, Audiappa Naicken Street, Madras.

Lala Gopikrishna Gokuldas—98-A, Armenian Street, Madras 1.

Laxmiwax Corporation—55/57, North Beach Road, Madras 1.

Maars Corporation—23, Anderson Street, Madras 1.

Madras Papers & Board Co.—21, Anderson Street, Madras I.

Madras Paper Board Industries—10/109, Madhavaram High Road, Madras 51. Madras Paper Converters and Industries—84, Sydenham's Road, Madras 7.

Madras Paper Industries.—356, T. H. Road, Madras 21. Mahalakshmi & Co.—39, Anderson Street, Madras 1.

Meenakshi Trading Corporation—Hakim Mansion, Loane Square, 17, Stringer Street, Madras 1.

M. Kumber Ali & Bros.—1, Anderson Street, Madras 1.

M. Husson Ali & Sons—50, Bunder Street, Madras.

M. Natesa Chetty & Co.—56, Anderson Street, Madras 1.

M. Ziaullah & Sons—1, Anderson Street, Madras 1.

Narayan & Co.—1, Thambu Chetty Street, Madras 1.

Palaniappa & Co.—2/53, Anderson Street, Madras 1. Paper Products Ltd.—Gaffar Mansion, 60, Chinnathambi

Street, Madras 1.

Paper & Allied Traders—292, N. S. C. Bose Road, Madras 1.

Papers & Co.-289, N. S. C. Bose Road, Madras 1. Paper Suppliers—20, Baker Street, Madras 1.

Pioneer Paper Convertors-5th Tank Road, Nungambakkam, Madras 34.

Pararam Jethanand & Co.-3, Thambu Chetty Street, Madras.

Pioneer Paper Convertors-Fifth Tank Road, Nungam-

bakkam, Madras 34. P. R. Natham & Co.-2/235, N. S. C. Bose Road, Madras 1.

Premier Suppliers (P) Ltd.-21, Errabalu Chetty Street, Madras 1.

P. S. N. M. Ramalingam Chettiar & Co.-46, Anderson Street, Madras 1.

Raja Paper Co.-1-B, Anderson Street, Madras 1. Rangoon Paper Stores—4, Anderson Street, Madras 1. Rayon Traders (P) Ltd.-63, Sembudoss Street, Madras 1. R. C. & Co. Agencies-107, N. S. C. Bose Road, Madras 1. Reynolds & Co.-16, Theagaraya Gramani Street, T. Nagar, Madras 17.

Malayaperumal Street, Sambandam Agencies—3, Madras 1.

Sayee Co.-49, Badrian Street, Madras 1.

Solisar & Co.—11/285, Malayaperumal Street, Madras 1. Southern Sales Corpn.-2/52, Anderson Street, Madras 1.

Sreenivas Papers-40, Anderson Street, Madras 1.

S. T. Jagtiani & Sons-2/6, Waller's Road, Madras 2. Star Paper Mart-62, Malayaperumal Street, Madras 1.

Star Trading Co.—58, Anderson Street, Madras 1.

Subramaniam Bros.—99, Armenian Street, Madras 1.

T. Chelvaranga Mudaliar & Sons-289, Stringer Street, Madras.

T. H. Gangappa Distributing Co.-16, Cochrane Basin Road, Madras 21.

T. M. Abdul Azeez & Co.—10, Badrian Street, Madras 1. T. V. Subramaniam & Co.-49, Bunder Street, Madras 1.

Tribeni Tissues (P) Ltd.—314/315, Linghi Chetty Street, Madras 1.

V. Shankar Rao & Sons-21, Thyagarayagramani Street, T. Nagar, Madras 17.

Valliappa Agencie—25, Anderson Street, Madras 1. Varsity Paper & Stationery Stores-61/4, Malayaperumal Street, Madras 1.

Vasu & Co.—12, Thambu Chetty Street, Madras 1. Victory Corporation—53/1, Edward Elliot Road, Madras 4.

V. Perumal Chetty & Sons-3, Stringer Street, Madras. V. Rajagopalan—61, Badrian Street, Madras.

V. V. Rao & Bros.—6-A, Warren Road, Madras 4.

#### PENCILS

Madras Pencil Factory-Kathi Uakkam High Road, Madras 21.

Standard Pencil Factory-Super 6, Industrial Estate, Guindy, Madias 32.

#### PERFUMES & COSMETICS

Aromatic Chemical & Oil Co. Ltd. -7A, Singanna Naick Street, Madras 1.

Best & Co. Ltd.—13/15, First Line Beach, Madras 1.

Ganga Works-53, Lattice Bridge Road, Adyar, Madras 20 McDowell & Co. Ltd.—22/23, Moore Street, Madras 1.

National Trading Co.-43, Velacheri Road, Madras 32.

Orient Cosmetics P. Ltd.—Super A-7, Industrial Estate. Madras 32.

Spencer & Co. Ltd.—Mount Road, Madras 2.

Taylor, T. A. & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.

Veto Co.—16, Jones Street, Madras 1.

#### PHOTOGRAPHIC MATERIAL DEALERS

Agfa Gevart India Ltd.—34, Mount Road, Madras 2. Central Camera Co. P. Ltd. -35/4, Mount Road, Madras 2. Heatly & Gresham Ltd.—Bombay Mutual Bldgs., Madras 1.

Ilford Selo (India) Pvt. Ltd.—2-3, Woods Road, Madras 2.

Klein & Peyerl—30, Mount Road, Madras 2. Kodak Ltd.—150/B, Mount Road, Madras 2.

Photo Cine Stores—97/98, Armenian Street, Madras 1.

Spencer & Co. Ltd.—Mount Road, Madras 2.

Vaman Brothers-39, Spurtank Road, Madras 31.

### PLASTIC PRODUCTS

Aboobacker & Co.—282, Thambu Chetty Street, Madras 1. Asia Engineering Co.-12, McNichols Road, Madras 31. Bhupendra Plastic Industries-20, Singara Garden Third Street, Madras 21.

Caprihans (I) P. Ltd., 171, Broadway, Madras 1.

Chemicals & Plastics (I) P. Ltd.—Dhun Building, 175/1, Mount Road, Madras 2.

Delux Industry-184, M. K. N. Road, Madras 6.

Delux Plastic Products-282, Thambu Chetty Street, Madras 1.

Electro-Plastic Combination-20, Govindappa Naicken Street, Madras 1.

Hema Plastics-13, Yogambal Street, T. Nagar, Madras 17. Indo Metal Industries. -23, Errabalu Chetty Street, Madras 1.

Indian Polythene Industries-17, Raman Road, Madras 1. Mayfair Plastic Trading Co.-2-A, Narayana Mudaliar Street, Madras 1.

Metplast Industries-G-11, Ambattur Industrial Estate. Madras 58.

National Plastic Industries-26, Ambattur Industrial Estate, Madras 58.

Nirmala Plastic Works-170/2, S. C. Bose Road, Madras 1. Plasticraft Industry-Velachery Road, Madras 42.

Plastometal-59, Ambattur Industrial Estate, Madras 58. Polyene Film Industries-B-17, Ambattur Industrial

Estate, Madras 58.

Polythene Processes—21/2, Mount Road, Madras 15.

Madras 58.

Southern Industrial Plastics.—298, Linghi Chetty Street, Madras 1. Suniti Plastic Moulders—51, Ambattur Industrial Estate,

Tip Top Plastic Industries-6/6, Kasi Chetty Street. Madras 1.

West India Plastic Trading Co.-F. Narayanamudali Street, Madras 1.

## PUMPS AND PUMPING SETS

Best & Co. Ltd.—13/15, North Beach Road, Madras 1. Binny & Co. (Madras) Ltd.—7, Armenian Street, Madras 1. Brady, W. H. & Co. Ltd.—154/155, Pophams, Broadway,

Madras 1.

Chandra Foundries Private Ltd.—55, Basin Bridge Road, Washermanpet, Madras 21.

Diamond Engineering Co.—6, Erabalu Chetty Street, Madras 1.

Easun Engineering Co. Ltd.—5/7, Second Line Beach, Madras 1.

G. Janshi & Co.—2/163, Mount Road, Madras 2.

Gordon Woodroffe & Co. Ltd.—1/21, North Beach Road, Madras 1.

Greaves Cotton & Co. Ltd.—19, Second Line Beach, Madras 1.

Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2.
Heatly & Gresham, Ltd.—Bombay Mutual Bldg.,
Madras 1.

Iaec Pumps Ltd.—2/17G, Mount Road, Madras 2. Jyoti Ltd.—177-79, Mount Road, Madras 2.

Kilburn & Co. Ltd.—153, Mount Road, Madras 2.

Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.

Masseys Engineers—4B-4C, North Railway Terminus Road, Royapuram, Madras 13.

National Engineering Co. (Madras) Ltd.—379, Netaji Subbas Chandra Bose Road, Madras 1.

Parry & Co. Ltd.—"Dare House", First Line Beach, Madras 1.

P. Natesan (Industries) Ltd.—191, Triplicane High Road, Madras 5.

Rajeswari Electricals.—10, Pondy Bazar, Madras 17.

Refrigerators & Home Appliances Ltd.—36, Mount Road, Madras 2.

Suguna Industries.—316, Linghi Chetty Street, Madras 1.
Tovac Equipments—F-6, Ambattur Industrial Estate,
Madras 58.

Water Supply Specialists Private Ltd.—330, Thambu Chetty Street, Madras 1.

## RADIO & RADIO PARTS

Alpha Radio & Novelties P. Ltd.—9, Mount Road, Madras 2.

Amson & Co. -38C, Mount Road, Madras 6.

Arrow Radio Co.—22, General Patters Road, Madras 2. Asiatic Radio Co.—4/169, Mount Road, Madras 2.

Britannia Talking Machine Co.—173, China Bazar, Madras 1.

Conjap Electronic Industries—64, Dr. Alagappa Chettiar Road, Vepery, Madras 7.

Electronic Service Co.—17/35, Mount Road, Madras 2.

General Agencies—2/69, Mount Road, Madras 2. General Radio & Appliances Pvt. Ltd.—1/18, Mount

Road, Madras 2. Appliances Pvt. Ltd.—1/18, Mount

General Radio Co.—3, Ritchie Street, Madras 2. G. K. Syndicate—118, Armenian Street, Madras 1.

India Radio House—9, Mount Road, Madras 2.

International Talkie Equipment Co. Pvt. Ltd.—18, Mount Road, Madras 2.

Jay-O-Phone Co.—13, Mint Street, Madras 3.

Jaypee Electronics-1/155, Mount Road, Madras 2.

Kohinoor Engineering Co.—D-2, Ambattur Industrial Estate, Madras 58.

Lalwani Radio Corporation—180, Narasingapuram Street, Madras 2.

Mahomed Ebrahim & Co. Pvt. Ltd.—Victory House, 7/8, Mount Road, Madras 2.

Motwane Pvt. Ltd.-196, Mount Road, Madras 2.

National Electronics—53-A, Usman Road, T. Nagar, Madras 17.

Nu-Wood P. Ltd.—D-8, Ambattur Industrial Estate, Madras 58.

Obul Reddy (Madras) P. Ltd.—31, General Patters Road, Madras 2.

Oriental Radio Corporation—162, Mount Road, Madras 2.

Philips India Ltd. —35-4, Mount Road, Madras 2.

Poppat Jamal & Sons—182, Broadway, Madras 1.

Radio & Allied Engineering Co.—4/17-B, Mount Road, Madras 2.

Radio & Electricals Ltd.—8/1, Victoria Crescent, Madras 8. Radio Services—10, Mount Road, Madras 2.

Rahila Traders.—6, Raja Annamalai Chettiar Road, Madras 7.

Resa Co.—11, Mount Road, Madras 2.

Savit Electronic Corp.—2, Ritche Street, Madras 2.

Southern Agencies-87, Waller's Road, Madras 2.

Standard Electric Co.—27, General Patters Road, Madras 2.

Standard Radio & Electric Co.—26, Pycroffs' Road, Madras 5.

Vauhini Radios-126, Mint Street, Madras 1.

Vivek & Co.—56, Royapettah High Road, Madras 4.

V. S. Rajagopalan & Co. P. Ltd.—1/1, Vadapalani Andavar Temple Street, Madras 26.

Wireless Sales & Service Co.—1/11-A, Mount Road, Madras 2.

## READYMADE GARMENTS

Ambattur Clothing Co.—B-15, Ambattur Industrial Estate, Madras 58.

Madras Apparel Co.—10/10B, Ambattur Industrial Estate, Madras 58.

Coromandel Garments Ltd.—21, Ambattur Industrial Estate, Madras 58.

## RUBBER GOODS

Asiatic Tyres-71, General Patters Road, Madras 2.

Automobile Rubber Products P. Ltd.—G-8, Ambattur Industrial Estate, Madras 58.

Best & Co. Ltd.—North Beach Road, Madras 1.

Bombay Co. P. Ltd.—169, Broadway, Madras 1.

Dunlop (India) Ltd.—Ambattur, Madras 53.

East India Rubber Works Private Ltd.—24/27, Mooker Nallamuthu Street, Madras 1.

Firestone Tyre & Rubber Co. (India) Ltd.—Woods Road,
Madras 2.

Free India Rubber Industries—64, Edward Elliot Road, Madras 4.

General Rubber & Latex Industries—Near Toll Gate, Madras 19.

Gillanders Arbuthnot & Co. Ltd.—First Line Beach, Madras 1.

Goodyear Tyre & Rubber Co. India Ltd.—2, Patullos Road, Madras 2.

Industrial Rubber Products—22, Industrial Estate, Guindy, Madras 32.

Kilburn & Co. Ltd.—153, Mount Road, Madras 2.

London Rubber Co. (I) Ltd.-Madras 43.

Madras Rubber Factory Ltd.—175/1, Mount Road, Madras 2.

M. M. Rubber Co. Ltd.—175/1, Mount Road, Madras 2. National Rubber Mfrs. Ltd.-4, Smith Road, Madras 2.

Oriental Rubber Trading Co. (Madras) P. Ltd.-7, Shafee Mahomed Road, Madras 6.

Phoenix India Rubber Products-23, Errabalu Chetty Street, Madras 1.

Rajco Rubber & Plastics-FB-4, Ambattur Industrial Estate, Madras 58.

Rubber-Age-20, Venkatachala Mudali Street, Madras 3. Ruby Rubber Works (Madras) Ltd.—8, Greaves Road, Madras 6.

Shriman Enterprises—34, Sembudoss Street, Madras 1. South India Rubber Works-9, Sembudoss Street, Madras 1.

Spencer & Co. Ltd.—Mount Road, Madras 2.

Union Rubber Co.-55/56, General Patters Road, Madras 2.

## SANITARY-WARES AND FITTINGS

Bafna & Co.—306, Thambu Chetty Street, Madras 1. Bharat Sanitary Stores-29, Perianna Maistry Street, Madras 1.

Calcutta Light Casting Supply Co.—19, Errabalu Chetty Street, Madras 1.

Gillander's Arbuthnot & Co. Ltd.—First Line Beach, Madras 1.

King & Company-321, Thambu Chetty Street, Madras 1. Madras Sanitary Mart-418, Triplicane High Road, Madras 5.

Madras State Small Industries Corpn. Ltd.—35/2, Woods Road, Madras 2.

New India Sanitary Stores-85/7, Sembudoss Street, Madras 1.

P. A. Govardhan Das—13/81, Sembudoss Street, Madras 1. Raval & Co. - 306, Linghi Chetty Street, Madras 1.

Sanitary Sales & Service-26, Thambu Chetty Street, Madras 1.

Sattar Sanitary Stores-1, Vaniar Street, Madras 1.

Vijaya Trading Corporation-320, Thambu Chetty Street, Madras 1.

#### SCIENTIFIC INSTRUMENTS

Acme Trading Corpn.—113, Armenian Street, Madras 1. Adair, Dutt & Co. (India) Pvt. Ltd.—1/29, Mount Road, Madras.

Andhra Scientific Co. Ltd.-4, Blacker's Road, Madras 2. Becker Scientific Co.- 15, Armenian Street, Madras 1.

Central Scientific Supplies Co. Ltd.—17, Stringer Street, Madras 1.

Cirugia De Lux Private Ltd.-1/30, Pantheon Road, Egmore, Madras 8.

D. C. Shah & Co.—235, Walltax Road, Madras 5.

Dutta Scientific Works-5, Sunkurama Chetty Street, Madras 1.

Free India Scientific Co.-74/A, Kothavalchavadi Street,

Global Agencies-100, Narayana Mudali Street, Madras 1. Gordhandas Desai P. Ltd.-22, Linghi Chetty Street, Madras 1.

Hargolal & Sons-302, Linghi Chetty Street, Madras 1.

Keroy P. Ltd.—13, Wahab Street, Madras 24.

Premier India Scientific Co. Ltd.—1-33, Varadarajulu Naidu Road, Madras 8.

Scientific Glass Apparatus Factory-Industrial Estate, Guindy, Madras 32.

Scientific Instrument Co. Ltd.—30, Mount Road, Madras 2. Standard Scientific Instruments Co.-115, Ramakrishna Math Road, Madras 28.

Toshniwal Bros. P. Ltd.—9, Blackers' Street, Madras 2. Towa Optics (I) P. Ltd.—33, Sembudoss Street, Madras 1.

Umatson Trading Corpn.—259, Angappa Naicken Street,

Madras 1.

United Scientific Co.—293, Linghi Chetty Street, G. T., Madras 1.

### SNUFF MANUFACTURERS AND DEALERS

A. Jainulabdin Sahib & Co.—110-D, Mount Road, Teynampet, Madras 18.

K. S. Sahib Snuff Factory-33/37, Muthunaicken Street, Madras 1.

Shanmugham Snuff & Co.—233-34, T. H. Road, Madras. Sri Ambal & Co.-201, Mint Street, Madras 1.

#### STAINLESS STEEL

Consales Industries-C-5, Ambattur Industrial Estate, Madras 58.

Indo-Metal Industries—2, Cross Road, Madras 21.

Metalware & Co.—23, Errabalu Chetty Street, Madras 1.

Mysore Premier Metal Factory-127, Mint Street, Madras 1.

Nachiappa Metal Corporation—268, Linghi Chetty Street, Madras 1.

S. D. & Sons-16, Lakshmidas Street, Park Town, Madras 3.

Seashore Traders-20, Kasi Chetty Street, Madras 1.

#### STEEL FURNITURE

Godrej & Boyce Mfg. Co. P. Ltd.—177-179, Mount Road, Madras 2.

Tamilnad Thozilagam-40, Whites Road, Madras 14.

Vellodi Brothers P. Ltd.-6-A, Woods Road, Mount Road, Madras 2.

## SURGICAL INSTRUMENTS AND APPLIANCES

Associated Surgicals (India)-Arumuga Naicken Street, Mount Road, Madras 2.

Bengal Surgical Co.-8/1, Semmunath Mudali Street, Madras 1.

Bombay Surgical Equipment Co.—8, Sunkurama Chetty Street, Madras 1.

Dhan Surgical Co.-4/1, Edayapalayam Lane, P. T., Madras 3.

Forward Surgical Co.—105, Nyniappa Naick Street, Madras 1.

Hale & Co.—1/288, N. S. C. Bose Road, Madras 1.

Hospital Equipment Mfg. Co.-1, Iron Monger Street, Madras 1.

Hospital Requisites Co.—14-11, Cross Road, Madras 28. Indian Sterilizer Co.—13, Devanatha Street, Madras 28.

Medical Equipment Co.—Jammi Bldgs., Royapettah High Road, Madras 4.

Modern Surgical Co.-4/124 G, Purasawalkam High Road, Madras 10.

National Surgical Eng. Works—187, Mount Road, Madras 2.

Pikay's Medico Surgicals—199, Mount Road, Madras 2. South India Surgical Co.—128, Nyniappa Naick Street, Madras 3.

## TIN PRINTERS & BOX MAKERS

Madras Metal Can Manufacturers—C-12A, Ambattur Industrial Estate, Madras 58.

Metal Printers Co.—524, Ponnapa Mudali Street, Purasawalkam Market Gate, Madras 12.

#### WELDING SETS AND MATERIALS WIRE AND WIRE PRODUCTS

East Asiatics Co. of India Ltd.—Bharat Bldg., Mount Road, Madras 2.

Indian Wire Products Industries—B-14 & 15, Industrial Estate, Madras 32.

Industrial Gases Ltd.-1/33, Mount Road, Madras 2.

North South Commercial Corporations—239, Angakka Naicken Street, Madras 1.

Southern Industrial Corpn. (P) Ltd.—99, Armenian Street, Madras 1.

## COIMBATORE COMMERCIAL FIRMS

Addisons & Co. Ltd.—Avanashi Road, Coimbatore 18.

Altech Industries—471, P. N. Palayam Road, Ganapati, P.O. Coimbatore 6.

Anamalais Retreading Co.—9/69, Jail Road, Coimbatore 18.

Arvee Agencies.—75, Sarojini Street, Ramnagar, Coimbatore 9.

Arya Vaidya Pharmacy (Cbe) Ltd.—Trichy Road, Coimbatore 18.

Asbestos Cement Ltd.-Podanur, Dt. Coimbatore.

Ashok Trading Corporation—87-88, Power House Road, Coimbatore 12.

Associated Traders & Engineers P. Ltd.—76, Uppara Street, Coimbatore 1.

A. T. N. Stainless Steel Industries—346, Raja Street, Coimbatore 1.

Avery Co. Ltd.—Trichy Road, Coimbatore 18.

Batliboi & Co. Pvt. Ltd.—172, Avanashi Road, Coimbatore 18.

Bharathi Industries—2/392, Avanashi Road, Coimbatore 18.

Bluemount Switchgears Associates Switchgears Ltd.—Patel Road, Coimbatore 9.

Brady & Co. Ltd., W. H.-Jail Road, Coimbatore 18.

Bradma of India P. Ltd.—109/110, Avanashi Road, Coimbatore 18.

Brilliant Engg. Co.—124-A, Crosscut Road, Coimbatore 12.
British Insulated Callender's Cables Ltd.—Race Course
Road, Coimbatore 18.

Broadway Engineering & Transport Co.—5/15, Old Post Office Road, Coimbatore 1.

Brooke Bond India Ltd.—Krishnaswamy Mudaliar Road, Coimbatore 1.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd.—409, Trichy Road, Coimbatore 18.

Caltex (India) Ltd.—Avanashi Road, Coimbatore 18.

Carbon Products of India Private Ltd.—Trichy Road, Coimbatore 18.

Cement Marketing Co. of India Ltd.—Race Course Road, Coimbatore 18.

Central India Machinery Mfg. Co. Ltd.—Variety Hall Road, Coimbatore 1.

Chandysons Rubber Industries—P. Box 78, Coimbatore. Chromotan (Cbe.) Ltd.—2/249, Avanashi Road, Coimba-

Coimbatore Industries-178, Jail Road, Coimbatore 18.

Coimbatore Mill Store & General Supplies Co.—5/307-308, Avanashi Road, Coimbatore 18. Coimbatore Premier Corporation (P) Ltd.—Avanashi Road, Coimbatore 18.

Cyclon Products Private Ltd.—11/43, Sathyamangalam Road, Coimbatore 6.

Dasappa Chettiar T. S. & Co.—Jail Road, Coimbatore 18. Diesel (India) Coimbatore—124-B, Trichy Road, Coimbatore 18.

Electro-Diesel Equipment Co.—23, Avanashi Road, \_\_Coimbatore 18.

Elgi Equipments P. Ltd.—India House, Trichy Road, Coimbatore 18.

Engineering & Chemical Equipments—33, Cox Street, Coimbatore 9.

Engineering Equipment Enterprises—10, Damunagar, Puliakulam, Coimbatore 9.

Everest Engineering Works.—Crosscut Road, Coimbatore 12.

Gannon Dunkerley & Co. Ltd.—Power House Road, Coimbatore.

Garlick & Co. Ltd.—Cox Street, Coimbatore 9.

General Electric Co. of India Ltd.—"Magnet House," Avanashi Road, Coimbatore 18.

General Industrial Corporation—102-B, Jail Road, Coimbatore 18.

George Oakes Ltd.—Avanashi Road, Coimbatore 18.

Gordon Woodroffe & Co. (Madras) Ltd.—Fraser Square, Coimbatore 1.

Greaves Cotton & Co. Ltd.—India House, Trichy Road, Coimbatore 18.

Haridas Bhagat & Co. P. Ltd.—7/15, Crosscut Road, Combatore 12.

Hindustan Carbonic Products—Podanur (Dt. Coimbatore). Imperial Tobacco Co. of India Ltd.—18-A, West Club Road, Coimbatore 18.

India Silicate Industry, Fraser Square, Coimbatore 1.

Indian Cable Co. Ltd.—4/2, Race Course Road, Coimbatore 18.

Indian Refrigeration Industries P. Ltd.—Singanallur, Coimbatore 5.

Indo-American Electricals Ltd.—Jail Road, Coimbatore 18.

Indo-Swiss Synthetic Gem Mfg. Co. Ltd.—Mettupalayam (Dt. Coimbatore).

Iyer Nadar & Co.—32, Variety Hall Road, Coimbatore 1. Jaga Button Industries Ltd.—Saibaba Mission Post, 5/

47, Mettupalayam Road, Coimbatore 11.

Jai Hind Electricals—106.B, Jail Road, Coimbatore 18. Jayasurya Electricals—26, Hallow Block, Trichy Road, Coimbatore 18.

Jayems Engineering Co.—Oppanakara Street, Coimbatore 1.

## COIMBATORE CLASSIFIED TRADES

tore 18.

Jenson & Nicholson India Ltd.—7/219, Avanashi Road, Coimbatore 18.

Johar D. C. & Sons Pvt. Ltd.—4/192, Trichy Road, Coimbatore 18.

Keserishih Vallabdas—Ramachandra Road, Coimbatore 2. Keshavlal Talakchand P. Ltd.—11/46, East Ponnurangam Road, Coimbatore 2.

Kilburn & Co. P. Ltd.—Post Box 763, Coimbatore 2.

K. N. D. Tool & Equipment Co.—Mettupalayam Road, Saibaba Mission, Coimbatore 11.

Lakshmi Card Clothing Mfg. Co. P. Ltd.—Kuppuswamy Naidupuram P.O. (Dt. Coimbatore).

Lakshmi Textiles Suppliers—5/4, Headquarters Road, Coimbatore 18.

L. G. Balakrishna & Bros. Pvt. Ltd.—Ganapathy, Coimbatore 6.

L. Kumaraswamy Mudaliar & Sons—437, Vysial Street, Coimbatore 1.

Libra Photographic Industries—Podanur, Dt. Coimbatore.

Madras Aluminium Co. Ltd.—'Jayalakshmi' Race Course,
Coimbatore 18.

Madras Chit Funds P. Ltd.—56-57, Oppanakara Street, Coimbatore 1.

Madras Forgings & Allied Industries (Cbe.) Ltd.—Mettupalayam Road, Karamadai, Coimbatore Dt.

Madras Phosphate Manufacturers P. Ltd.—51, Ponnurangam Road, Coimbatore 2.

Mahalakshmi Textile Exporters P. Ltd.—Avanashi Road, Coimbatore 18.

Meccano Floorings Ltd.-College Road, Coimbatore.

 Modern Match Co.—7/8th Street, Tatabad, Coimbatore 12.
 Mopeds (India) Ltd.—No. 1, Palaniswamy Naidu Street, Avanashi Road, Coimbatore 18.

Mouli & Sons Engineers P. Ltd.—43, Rajaji Road, Coimbatore 9.

Nagindas Khilabhai—Cox Street, Coimbatore 9.

Nanco Rubber & Plastics Ltd.—A.T.T. Colony, Coimbatore 18.

Needlex Industries (India) Ltd.—Post Box No. 12, Coimbatore.

Oriental Rubber & Plastic Trading Co.—Jail Road, Coimbatore 18.

Pagefield Agencies—Coimbatore 9.

Parry & Co. Ltd.—Fraser Square, Coimbatore 1.

Peirce Leslie & Co. Ltd.—Race Course Road, Coimbatore 18.

Peninsula Steel & Tools Co.—Ramnagar, Coimbatore 9.

Praga Industries P. Ltd.—Peelamedu, Coimbatore 4.
Premier Paper Products—23, Venkataswamy Road,

Coimbatore 2.

Radha Industries.—100 ft. Road, Tatabad, Coimbatore 12. Rallis India Ltd.—Avanashi Road, Coimbatore 18.

Ram Industries.—6/226, Avanashi Road, Coimbatore 18. Ramu Foundry.—Pappanaickenpalayam, Coimbatore 1. Rayon Traders P. Ltd. United India Bldg., Avanashi Road, Coimbatore 18.

WIE OF EDUCATION

Remington Rand of India Ltd.—12/204, Opparakara Street, Coimbatore 1.

Royal Steel Industries—P. N. Palayam, Avanashi Road Coimbatore 18.

Saitex Industries—15/248, N. H. Road, Coimbater 1. Sizing Materials Co. Ltd.—102, Prichy Road, Coimbatore 18.

Skins & Leathers P. Ltd.—P. Box 445, Coimbatore 2.

South India Corporation Agencies P. Ltd.—4/2, Race Course Road, Coimbatore 18.

South India Mills Stores Co.—10/141, Dr. Nanjappa Road, Coimbatore 18.

South India Corporation P. Ltd.—Jail Road, Coimbatore 18.

South India Viscose Ltd.—Race Course, Coimbatore 18. Southern Electric Corporation—Avanshi Road, Coimba-

Southern Plastic P. Ltd.—Sanganur, Coimbatore 11.

Southern Roadways P. Ltd.—Avanashi Road, Coimbatore 18.

Stanes Amalgamated Estates Ltd.—Race Course Road, Coimbatore 18.

Stanes Motors (South India) Limited—497, Trichy Road, Coimbatore 18.

Star Latex Industries—85-A, Perur Road, Coimbatore 10. Tata Fison Industries Ltd.—18, Dr. Sivananda Colony, Second Lay out, Coimbatore 12.

Texmo Corporation-Jail Road, Coimbatore 18.

Textiles & Yarn P. Ltd.—17-B, Bashyakarlu Road, Coimbatore 2.

Textool Company Limited, Ganapathy, Coimbatore 6.

Titan Paints and Varnishes Ltd.—Podanur P. O., Coimbatore.

T. Stanes & Co. Ltd.—Race Cource Road, Coimbatore 18.
Tubes & Mallbeales Ltd.—Race Course, Coimbatore 18.

Tufflite Plastics Pvt. Ltd.—P. Box No. 849, Coimbatore 4 T. V. Sundaram Iyengar & Sons, P. Ltd.—Mettupalayam Road, Coimbatore 2.

Uberoi Limited—8-23, Avanashi Road, Coimbatore 18.
 U. M. S. Radio Factory—Avanashi Road, Coimbatore 18.
 United Coffee Supply Co. Ltd.—Trichy Road, Coimbatore 18.

United Nilgiri Tea Estates Co. Ltd.—Post Box No. 12, Coimbatore.

Universal Radiators—Mettupalayam Road, Coimbatore 11.
V. C. S. Industries Pvt. Ltd.—Gnanambikai Mills P. O., Coimbatore 11.

Visual Educational Aids—Coimbatore 18.

Vitamin Products Co.—213, Tatabad, Coimbatore 12. Voltas Ltd.—Race Course Road, Coimbatore 18.

Wakefield Engineering Co.—Jail Road, Coimbatore 18.
Western India Plastic Trading Co.—Raja Street, Coimb

Western India Plastic Trading Co.—Raja Street, Coimbatore 1.

## CLASSIFIED LIST OF TRADES & PROFESSIONS

## **AUTOMOBILE ENGINEERS**

Associated Automobiles P. Ltd.—Avanashi Road, Coimbatore 18.

Autocraft Automobile Electrical Engineers—9/93, Dewan Bahadar Road, Coimbatore 2.

Auto-Reconstruction Works—Cross Street Road, Coimbatore 1.

Bombay Automobiles—7/105, Dr. Nanjappa Road, Coimbatore 18.

Chidambaram Automobiles—162, Avanashi Road, Coimbatore 18.

Coimbatore Automobiles—139, Dr. Nanjappa Road, Coimbatore 18. General Motor Products—Gnanambikai Mills P.O.,

Coimbatore 11.

George Oakes Ltd.—Avanashi Road, Coimbatore 18. Gounder & Co.—225/226, Dr. Nanjappa Road, Coimbatore 18.

India Services (Coimbatore) Ltd.—4/105, Trichy Road, Coimbatore 18.

Kesar Motor Works—14/31, Mill Road, Coimbatore 9, Modern Motor Works.—Fraser Square, Coimbatore 1.

Mohindra Automobiles—14/42, Mill Road, Coimbatore 9. Ratna Automobiles—Avanashi Road, Coimbatore 18.

South India Corporation (Madras) Ltd.—Jail Road, Coimbatore 18.

Southern Motors-Trichy Road, Coimbatore 18.

Stanga Motors (South India) Ltd. Tricky Road Coimba

Stanes Motors (South India) Ltd.—Trichy Road, Coimbatore 18.

## CENTRIFUGAL PUMPS MANUFACTURERS

Dhandayuthapani Foundry Private Ltd.—Pappanaichenpalayam, Coimbatore 18.

Eastern Electrical Co. Ltd.—Singanallour, Coimbatore 5. Ganapathy Engineering Manufacturers Privat. Ltd.—Post Box No. 6, Ganapathy, Coimbatore 6.

Gin & General Industries Ltd.—Oppannakara Street, Coimbatore 1.

Suguna Industries.—148, Patel Road, Coimbatore 9.

## COTTON MILLS

Sri Ambal Mills Pvt. Ltd.—Samalapuram, Somanur, Coimbatore.

Anandakumar Mills Ltd.—Sravanampatti P. O., Coimbatore.

Asher Textiles Limited-Tirupur.

Sri Balasubramania Mills Limited—Singanallur P. O., Coimbatore 5.

Bhavani Mills Ltd.—47, Race Course, Coimbatore 18.

Cambodia Mills Limited—Ondiputhur P. O., Coimbatore 5.

Chandra Textiles Ltd.—Peelamedu, Coimbatore 4. Coimbatore Cotton Mills Ltd.—Singanallur Post, Coimba-

tore 5.
Coimbatore Cotton Jubilee Mills—Singanallur, Coimba-

tore 5.
Coimbatore Dist. Co.-opp. Spg. Mills Ltd.—Dharapuram,

Coimbatore Kamala Mills Ltd.—Uppilipalayam, Singa-

nallur P. O., Coimbatore 5.
Coimbatore Murugan Mills Itd Saibaba Minis D. O.

Coimbatore Murugan Mills Ltd.—Saibaba Mission P. O., Coimbatore 11.

Coimbatore Pioneer Mills Ltd.—Peelamedu, Coimbatore 4. Coimbatore Spg. & Wvg. Co. Ltd.—P.B. No. 24, Coimbatore.

Dhanalakshmi Mills Ltd.—P.B. No. 29, Tirupur.

D.P.F. Textiles Ltd.—Mettupalayam Road, Gnanambikai Mills P.O., Coimbatore 2.

Essorpe Mills Pvt. Ltd.—Ganapathi Post, Coimbatore 6. Gnanambikai Mills Ltd.—Gnanambikai Mills Post, Coimbatore 2.

Ganga Textiles—Pappanaickenpalayam, Coimbatore 18. Gobald Textiles Ltd.—144, Easwaran Koil Street, Tirupur, Coimbatore Dist.

Gopalakrishna Mills (Pvt.) Ltd.—Ganapathy Post, Coimbatore 6.

Sri Hari Mills Ltd.—P. B. No. 27, Ondiputhur, Coimbatore 5.

Janardhana Mills Ltd.—Uppilipalayam, Singanallur P.O., Coimbatore 15. Jayalakshmi Mills Ltd.—Singanallur P.O., Coimbatore 5. Jothi Mills—Perianaickenpalayam, Sri Ramakrishna Vidyalaya P.O., Coimbatore.

Kadri Mills (CBE) Ltd.—P. B. No. 19, Odderpalayam, Ondiputhur, P.O., Coimbatore 5.

Kaleeswarar Mills Ltd.—10/8, Anupparpalayam, Coimbatore 18.

Kannapiran Mills Ltd.—Sowripalayam P.O., Coimbatore. Karthikeya Spg. & Wvg. Mills Ltd.—Post Box No. 1201, Coimbatore 5.

Karunambikai Mills Ltd.—Somanur P.O., Coimbatore Dist.

Kasthuri Mills Ltd.—Singanallur P.O., Coimbatore 5.

Kothari Textiles Ltd.—Singanallur P.O., Coimbatore 5.

Kothari Textiles Ltd. (Mill No. 2)—K. Vadamathurai, \_\_Coimbatore 17.

Krishnaveni Textiles Ltd.—Singanallur P.O., Coimbatore 5.

Kumaran Mills Ltd.—Peelamedu P.O., Coimbatore 4.

Kwality Spinning Mills Ltd.—Pollachi, Coimbatore District.

Lakshmi Mills Co. Ltd.—P. B. No. 1301, Pappanaickenpalayam, Coimbatore 18.

Lakshmi Mills Co. Ltd.—Palladam, Coimbatore Dist.

Lakshminarayana Textiles Ltd.—Vadugapalayam, Palladam Taluk, District Coimbatore.

Lotus Mills Ltd.—Sundarapuram P.O., Podanur, Coimbatore District.

Narasimha Mills Pvt. Ltd.—Narasimhanaickenpalayam Post, Coimbatore 11.

Narasimha Mills Ltd.—Kannanpalayam, Sulur P.O., Coimbatore.

Natesar Spg. & Wvg. Mills Ltd.—Erode.

Om Parasakthi Mills Ltd.—Krishnarayapuram, Ganapathy P.O., Ceimbatore 6.

Palamalai Ranganathar Mills Ltd.—Perianaickenpalayam, Sri Ramakrishna Vidyalaya P.O., Coimbatore.

Palani Andavar Mills Ltd.—Dhalli Road, Udamalpet, Coimbatore Dist.

Pankaja Mills Ltd.—P. B. No. 150, Puliakulam, Coimbatore.

Pioneer Textiles Ltd.—Vedapatty P.O., Coimbatore.

Prakash Mills Ltd.—Peelamedu, Coimbatore.

Premier Mills (Coimbatore) Ltd.—Pulankinar, R. S. Udamalpet.

Premier Mills (Coimbatore) Ltd.—Othakalmandapam Branch, Coimbatore.

Radhakrishna Mills Ltd.—Peelamedu, Coimbatore 4.

Radhika Mills Ltd.—5/179, Uppilipalayam, Coimbatore 5. Rajalakshmi Mills Ltd.—Singanallur P.O., Coimbatore 5.

Rajalakshmi Mills Ltd.—Karamadai P.O., Coimbatore Dist.

Sri Ramakrishna Mills (CBE) Ltd.—Ganapathy P.O., Coimbatore 6.

Ramalinga Choodambikai Mills Ltd.—Tirupur, Coimbatore Dist.

Ramnarayan Mills Ltd.—Perianaickenpalayam, Coimbatore.

Ranga Vilas Ginning, Spg. & Wvg. Mills Ltd.—Peelamedu, Coimbatore 4.

Rani Lakshmi Gin., Spg. & Wvg. Mills Private Ltd.—Arasur Village, Palladam.

Raveendran Mills Ltd.—P. B. No. 859, Singanallur P.O. Coimbatore 5.

Sakthi Textiles Ltd.—Pollachi, Coimbatore Dist.

Sarada Mills Ltd.—Loganathapuram, Podanur, Coimbatore. Sarguna Textiles—Sulur P.O., Coimbatore.

Saroja Mills Ltd.—Singanallur P.O., Coimbatore 5.

Selvaraj Mills Ltd.-Odderpalayam, Ondiputhur P.O.,

Coimbatore 16.

Sivananda Mills Ltd.—Ganapathy P.O., Coimbatore 6. Somasundaram Mills Ltd.—P.B. No. 1530, Coimbatore.

Southern Textiles Ltd.—Sulur Post, Coimbatore.

South India Visco Limited—Race Course, Coimbatore 18.

Sujani Textiles Ltd.—Sowripalayam P.O., Coimbatore, Suryaprabha Mills Ltd.—Kunniamuthur, Coimbatore.

Tamilnadu Spinning Mills Ltd.— 'Ambu Nilayam', Rayappapuram Extension, Tirupur, Coimbatore Dist.

Tirumurthi Mills Ltd.—Udamalpet, Coimbatore District. Tirupur Cotton Spg. & Wvg. Mills Ltd.—P.B. No. 12,

Tirupur, Coimbatore Dist.

Tirupur Textiles Pvt. Ltd.—Tirupur, Coimbatore Dist.

United Bleachers P. Ltd.—Mettupalayam.

Varadarajah Textiles Ltd.—Peelamedu P.O., Coimbatore 4.

Vasantha Mills Ltd.—Singanallur P.O., Coimbatore 5. Vasudeva Industries Ltd.—Odderpalayam, Singanallur,

Combatore Mills 14d Venhaters Mills Post Udemalnet

Venkatesa Mills Ltd.—Venkatesa Mills Post, Udamalpet, Coimbatore Dist.

Vijayalakshmi Mills Ltd.—Kuniamuthur Post, Coimbatore.

Vijayeswari Textiles Ltd.—Pulliampatti, Pollachi, Coimbatore Dist.

## **ELECTRIC MOTORS, PUMPS & PUMPING SETS**

Argus Engineering Co. Ltd.—Peelamedu, Coimbatore 4. Balasubramania Foundry—Patel Road, Coimbatore 9. Bharathi Industries.—Avanashi Road, Coimbatore 18.

Broadway Engg. & Transport Co.—Patel Road, Coimbatore 9.

Chitra Industries.—Trichy Road, Coimbatore 5.

Coimbatore Premier Corporation P. Ltd.—Avanashi Road, Coimbatore 18.

Damu Foundry—Krishnarayapuram Road, Coimbatore 6. Dhana Engineering Industrials.—47-A, Alagapuri Street,

Pollachi, Dist. Coimbatore.

Eastern Electrical Co. Ltd.—Singanallur, Coimbatore 5.

Eltex Engineering Corporation Pvt. Ltd.—Ganapathy,

Coimbatore 6. Excel Industries—P. Box 1, Coimbatore 11.

Gedee Stoll Pvt. Ltd.—Coimbatore 18.

General Engineering Co.—Mettupalayam Road, Coimbatore II.

Jupiter Electro Industry.—Ganapathy, Coimbatore 6. Kala Industries P. Ltd.—Mettupalayam Road, Coimba-

tore 11.
Karthikeya Foundry—Puliakulam Road, Pappanaicken-

palayam, Coimbatore 18.

Lakshminarayana Industries.—287, Sathy Road, Coimbatore 12.

Leader Industries—8, Tarabad, Coimbatore 12.

Mahendra Engineering Works.—6/433, P. N. Palayam Road, Coimbatore 18.

Meenakshi Industries.—26/23, Aerodrome Road, Coimbatore 5.

Moulvi & Sons-Crosscut Road, Coimbatore 9.

Navamani & Co.—Pappanaickenpalayam, Coimbatore 18. Nirmala Industries.—12/14, Krishna Mudaliar Road, Coimbatore 2. P. S. G. Industrial Institute.—Peelamedu P.O., Coimbatore 4.

Prakash Engineering Co.—Mettupalayam Road, Coimbatore 11.

Raja Foundry—Pappanaickenpalayam, Coimbatore 18.

Ramakrishna Industrials Ltd.—Peelamedu, P.O. Coimbatore 4.

Rashmi Engineering Industries.—44, Rajaji Road, Ramnagar, Coimbatore 9.

Santoshkumar Industries.—Santinagar, Mettupalayam Road, Coimbatore 11.

Southern Engg. Industrials—343, Avanashi Road, Coimbatore 18.

Sova P. Ltd.-Kuniamuthar, Coimbatore 8.

Sri Krishna Foundry—Pappanaickenpalayam, Coimbatore 18.

Sri Sakti Engineering Works—Avanashi Road, Coimbatore 4.

Standard Engineering Co.-Coimbatore 2.

Subbiah Foundry-Avanashi Road, Coimbatore 18.

Tex Spindle Industries.—Gnanambikai Mills P.O., Coimbatore 11.

Texmo Industries—Mettupalayam Road, Coimbatore 2. T. R. Industrials—Coimbatore 8.

Vijay Foundry—Pappanaickenpalayam, Coimbatore 18.

## **ENGINEERING**

Aelenke Engg. Industrials—34, Vilankurichi Road, Peelamedu, Coimbatore 4.

Agricultural Engg. & Trading Co.—3/255, Mettupalayam Road, Saibaba Mission Post, Coimbatore 11.

Aristo Engg. Industries (P) Ltd.—Chinthamani Pudur, Coimbatore 16.

Asia Engineering Co.—8, Vivekananda Road, Coimbatore 9.

Bharat Foundry—Pappanaickenpalayam, Coimbatore 18. Brilliant Engg. Co.—India House, Trichy Road, Coimbatore 18.

Coimbatore Engg. Industries P. Ltd.—K. R. Puram, Ganapathy Post, Coimbatore 6.

Coimbatore Engg. Products—3/214, Mettupalayam Road, Saibaba Mission Post, Coimbatore 11.

Coimbatore Industries—K. R. Puram, Ganapathy, Coimbatore 6.

D'Engineering P. Ltd.—United Motor Building, Avanashi Road, Coimbatore 18.

Earnest Engg. Industries—2/124, Pappanaickenpalayam, Coimbatore 18.

Eltex Engg. Corpn. P. Ltd.—Ganapathy Post, Coimbatore 6.

Engg. & Industrial Foundry Co.—Mettupalayam Road, Coimbatore 11.

Govardhana Engineering Industries—Ukkadam South, Coimbatore 1.

Hansa Electric & Engg. Corporation—5/4, Headquarters Road, Coimbatore 18.

Industrial Engineering Co. (Cbe.) P. Ltd.—Fraser Square, Coimbatore 1.

Ideal Engg. Industry—Ganapathy Post, Coimbatore 6.

Jayachander Engineering Industries.—Mettupalayam Road, Coimbatore 2.

Kasturi Engineers Ltd.—Kuniamuthur Post, Coimbatore 8.

Lakshmi Engg. Foundry—K. R. Puram, Ganapathy, Coimbatore 6.

Lakshmi Engg. Corporation—6/43, Puliakulam Road, Pappanaickenpalayam, Coimbatore 18. Lakshmi Machine Works Ltd.—Perianaickenpalayam, Ramakrishna Mission, Vidyalaya P.O., Dist. Coimbatore.

Lotus Foundry—Ammankulam Road, Pappanaickenpalayam, Coimbatore 18.

Measureall Engineering Co. Private Ltd.—Singanallur, Coimbatore 5.

Meenakshi Industries—26/23, Aerodrome Road, Singanallur, Coimbatore 5.

Micromatic Engineers—25-A, Premier Industrial Estate, K. R. Puram, Coimbatore 6.

Mini Electrical Mfg. Co.—Mettupalayam Road, Coimbatore 11.

Nirmala Engineering Works—Krishnaswamy Mudaliar Road, Coimbatore 2.

Peelamedu Industrial Corpn. Ltd.—234, Avanashi Road, Peelamedu, Coimbatore 4.

Prabhakar Industries—100 Ft. Road, Tatabad, Coimbatore 11.

Premier Engg. Industries--Venugopal Pillai Layout, Pappanaickenpalayam, Coimbatore 18.

Rajashri Industrial Foundry—P. N. Palayam, Coimbatore 18.

tore 18.
Radha Foundry—6/2, Blackstone Road, Red Fields,

Coimbatore 18.
Ridall Corporation P. Ltd.—334, Avanashi Road, Coimba-

tore 18.

Rolex Industries—1/80, Chinnaswamy Naidu Street,
Pappanaickenpalayam, Coimbatore 18.

Santha Engg. Foundry—Ganapathy Post, Coimbatore 6. Shanmugha Engg. Works—Thudiyalur Post, Coimba-

tore 11.
Southern India Engg. Industries—Avanashi Road,

Coimbatore 18.

Sreevatsa Engineering & Trading Co.—Jail Road, Coimbatore 18.

Sri Ramkrishna Steel Industries Ltd.—Karamadai Post, Coimbatore (Dt.).

Supreme Engs. Mfrs.—7/17, Doctors Garden, Avanashi Road, Coimbatore 18.

Vakast Engg. Foundry—Venugopal Pillai Layout, Pappanaickenpalayam, Coimbatore 18.

Vee Ram Industrial Foundry—Ammankulam Road, Pappanaickenpalayam, Coimbatore 18.

Velmurugan Foundry—Vadavalli P.O., Dt. Coimbatore. Velumani Engg. Industry—Thudiyalur Post, Coimba-

tore 11.
Vijaya Engineering Corporation—Old P.O. Road, Coimbatore 18.

## **FERTILISERS**

Agro Chemical Fertilisers—Vashiyampalayam, Kalapatti P.O., Coimbatore 6.

Coimbatore Chemicals & Fertilisers Ltd.—Mettupalayam Road, Coimbatore 11.

Coimbatore Pioneer Fertilisers—Pioneer House, Peelamedu, Coimbatore 4.

Deccan Fertilisers Co. (Cbe.) Ltd.—291, Oppanakara Street, Coimbatore 1.

Fertilisers & Chemicals (Travancore) Ltd.—Avanashi Road, Coimbatore 18.

Mysore Fertiliser Co.—43, Diwan Bahadur Road, Coimbatore 2.

Mettur Fertiliser Co. Ltd.—137, East Sambandam Mudaliar Road, Coimbatore 2.

Scientific Fertilisers Co. Ltd.—Ponnurangam Road, Coimbatore 2.

Stanes Fertiliser Works.—Tudiyalur (Coimbatore).

Tamilnad Fertiliser Co.—8/26, Trichy Road, Coimbatore 5.

## MACHINERY MFRS. & DEALERS

Abboi Machine Tools P. Ltd.—Singanallur, Coimbatore 5.
Associated Electrical Industries Ltd.—Race Course Road,
Coimbatore 18.

Auto Equipment Machinery Co.—8/46, Jail Road, Coimbatore 18.

Engineering & Industrial Foundry Co.—Coimbatore 9.

Festo Elgi Pvt. Ltd.—India House, Trichy Road, Coimbatore 18.

Hindustan Equipment Manufacturers—Krisnarayapuram, Ganapathy, Coimbatore 6.

Jupiter Electro Industries—43, Dr. Nanjappa Road, Coimbatore 18.

Madras Machine Tools Manufacturers Ltd.—8/146-B, Trichy Road, Coimbatore 5.

Machinery Mfrs. Corporation Ltd.—Gowders Colony, Tatabad, Coimbatore 12.

Pioneer Foundry-167, Patel Road, Coimbatore 9.

Ramsar Farm Machineries P. Ltd.—13/18, Periaswamy Road, Coimbatore 2.

Sree Radhakrishna Industries—Krishnarayapuram, Coimbatore 6.

Sri Venkatapathi Industries—9/33, Patel Road, Coimbatore 9.

Sundaram Metal Industries—2/117, Bhavathiar Road, Coimbatore 18.

U.M.S. Machine Tools—Avanashi Road, Coimbatore 18.

## TEXTILE ENGINEERS & MACHINERY MFRS. & DEALERS

Altex P. Limited-Avanashi Road, Coimbatore 18.

Argus Engineering Co. Ltd.—Avanashi Road, Coimbatore 18.

Cotexma Engineering Corporation—1/19, Trichy Road, Coimbatore 18.

Crompton Engineering Co. (Madras) Ltd.—Arts College Road, Coimbatore 1.

International Industries & Agencies Ltd.—Avanashi Road,
\_\_Coimbatore 18.

Kamala Industries-Kuniamuthur, Coimbatore.

Laxmi Reiter Machine Works Ltd.—Shell House, Avanashi Road, Pappanaickenpalayam, Coimbatore 18.

Textile Machinery Corpn., Ltd.—36, Sivaswami Road, Ramnagar, Coimbatore 9.

Tex Spindle Industries—Coimbatore 11.

## COMMERCIAL FIRMS IN CALCUTTA

Abdul Rahim Oosman & Co. India Pvt. Ltd.—2, Rajmohan Street, Calcutta 1.

ACC-Vickers-Babcock Ltd.—Ilaco House, 1 & 3 Brabourne Road, Calcutta 1.

Aceto Chemicals Pvt. Ltd.—22, Brabourne Road, Calcutta 1.

Acme Manufacturing Co.—8-1, Esplanade East, Calcutta 1. Adcco Ltd.—2, Chowringhee Road, Calcutta 13.

Adding Machine (India) Private Ltd.—29, Ezra Mansions, 10, Govt. Place, Calcutta 1.

Adigee Industries.—59-4, Garfa Main Road, Calcutta 32. Adross Ltd.—14, Old Court House Street, Calcutta 1.

Advani Pvt. Ltd.—30, Garstin Place, Calcutta 1.

Advani Orlikon Pvt. Ltd.—P-6, C.I.T. Road, Calcutta 14. A. Firpo Ltd.—18/2, Chowringhee Road, Calcutta 13.

Agarwal Hardware Works Pvt. Ltd.—167, C. R. Avenue, Calcutta 7.

Agrind Fabrications Ltd.—6 Ganesh Chandra Avenue, Calcutta 13.

Ahmed Dadabhoy & Co. (India) Pvt., Ltd.—8-A, Amratolla Lane, Calcutta 1.

Air France.—41, Chowringhee Road, Calcutta 16.

Airways India Ltd.—31, Chittaranjan Avenue, Calcutta 12.

A. & J. Main & Co., Ltd.—16, Netaji Subhas Road, Calcutta 1.

Albert David Ltd.—15, Chittaranjan Avenue, Calcutta 13. Albion Plywood Ltd.—11, Clive Row, Calcutta 1.

Alcan Asia Ltd.-41, Chowringhee Road, Calcutta 16.

Alexander Pvt. Ltd.—26, Strand Road, Calcutta 1.

Alex Miller (Merchants) Pvt. Ltd.—137, BRBB Road, Calcutta 1.

Alfred Herbert (India) Private Ltd.—13/3, Strand Road, Calcutta 1.

Alkali & Chemical Corporation of India Ltd.—34, Chowringhee Road, Calcutta 16.

Allahabad Merchandise Co. Pvt. Ltd.—310, Jessore Road, Calcutta 55.

Allcock E. M. & Mohatta Ltd.—19, British Indian Street, Calcutta 1.

Alliance Engineers Pvt. Ltd.—67-B, Netaji Subhas Road, Calcutta 1.

Calcutta 1.

Allied Resins & Chemicals (Pvt.) Ltd.—13, Camac Street,

Calcutta 16.
Allied Trading Corpn.—71-A, Netaji Subhas Road, Cal-

cutta 1.

Aluminium Cables & Conductors (U.P.) Pvt. Ltd.—47,

Hide Road Extension, Calcutta 27.

Aluminium Manufacturing Company Private Ltd.—
Jessore Road, Dum Dum, Calcutta 28.

American Express Co., Inc.—21, Old Court House Street, Calcutta 1.

American International Underwriters (I) Pvt. Ltd.—7, Wellesley Place, Calcutta 1.

Aminchand Payarelal Ltd.—136, Canning Street, Calcutta 1.

Amiya Corporation.—19, British Indian Street, Calcutta 1. Amrita Bazar Patrika Pvt. Ltd.—14, Ananda Chatterjee Lane, Calcutta 3.

Amritlal Ojha & Co., Ltd.—Security House, 23B, Netaji Subhas Road, Calcutta 1. Amrutanjan Ltd.-5, Bentinck Street, Calcutta 7.

Ananda Bazar Patrika Ltd.—6, Profulla Sarkar Street, Calcutta I.

Anandamoyee Agency Ltd.—24, Netaji Subhas Road, Calcutta 1.

Ancillary Industries Cranks Private Ltd.—Mercantile Buildings, Lalbazar, Calcutta 1.

Anderson Wright & Co.-7, Wellesley Place, Calcutta 1.

Andrew Yule & Co. Ltd.—8, Clive Row, Calcutta 1.

Angelo Brothers Ltd.—7, Ramgopal Ghosh Road, Cossipore, Calcutta 2.

Anglo-Swiss Watch Co.—6, Dalhousie Square East, Calcutta 1.

Angus Co., Ltd.—3, Clive Row, Calcutta 1.

Angus Keith & Co.-30, Strand Road, Calcutta 1.

Annapurna Metal Works.—3 Ashu Biswas Road, Bhowanipore, Calcutta 25.

Antome Bentz (P) Ltd.—8, Netaji Subhas Road, Calcutta I.

Antool & Co. Pvt. Ltd.—S. 91, Acharya P. C. Road, Calcutta 9.

A. P. V. Engineering Co. Pvt. Ltd.—2, Jessore Road, Calcutta 28.

Armen George Co. Pvt. Ltd.—35, Ezra Street, Calcutta 1. Arora & Co. Ltd.—7-A, Clive Row, Calcutta 1.

Arora-Matthey P. Ltd.—166, Netaji Subhas Chandra Bose Road, Calcutta 40.

Art Floors Pvt. Ltd.-2, Clive Row, Calcutta 1.

Arthik Jagat -4/23, Leonard, Calcutta 22.

Arthur Butler & Co. (Muzafferpore) Ltd.—11, Brabourne Road Calcutta 1.

Arun Ghose & Co. Pvt. Ltd.—1, British Indian Street, Calcutta 1.

Arun Importers Pvt. Ltd.—P-38, India Exchange Place, Calcutta I.

Arvind Brothers Pvt. Ltd.—4, Sakiat Place, Calcutta 13. Asbestos Cement Ltd.—Taratolla Road, Calcutta 24.

Asbestos, Magnesia and Friction Materials Ltd.—20/A, Camac Street, Calcutta 16.

Asbestos Products Co.—71-A, Netaji Subhas Road, Calcutta 1.

Ascu Hickson Ltd.—7A, Elgin Road, Calcutta 20.

Asea United Traders and Industries Pvt. Ltd.—10-B,

Kapalitola Lane, Calcutta 12.

Ashok Chandra Rakhit Ltd.—26, Cotton Street, Calcutta 7.
Ashoka Marketing Ltd.—18A, Brabourne Road, Calcutta 1.
Asia Engineering & Industries Co. Pvt. Ltd.—11, Ezra Street, Calcutta 1.

Asian Marketing Co. Ltd.—38, Netaji Subhas Road, Calcutta 1.

Asian Refractories Ltd.—15, Ganesh Chandra Avenue, Calcutta 13.

Asiatic Mfg. Co.—84-A, Netaji Subhas Road, Calcutta 1. Assam Hardboards Ltd.—132, Rashbehari Avenue, Tollygunge, Calcutta 19.

Assam Sillimanite Ltd.—P-4, Oil Installation Avenue, Calcutta 23.

Assam Tubes Ltd.,—106, Girish Ghose Road, P.O. Belurmath, Howrah.

- Associated Accessories Pvt. Ltd.—51, Ganesh Chandra Avenue, Calcutta 13.
- Associated Aesby Industries Ltd.—22, Strand Road, Calcutta 1.
- Associated Battery Makers (Eastern) Ltd.-59C, Chowringhee Road, Calcutta 20.
- Associated British Machine Tool Makers (India) Ltd.—21 Camae Street, Calcutta 16.
- Associated Cement Companies Ltd.—9, Brabourne Road, 1st Floor, Calcutta 1.
- Associated Electrical Industries (India) Ltd.—13, Rajendra Nath Mukherjee Road, Calcutta 1.
- Associated Engineers Pvt. Ltd.—24, Netaji Subhas Road, Calcutta 1.
- Associated Indian Enterprises Pvt. Ltd.—225C, Acharya J. B. Road, Calcutta 17.
- Associated Industrial Development Co. Pvt. Ltd.—Nicco House, 2, Hare Street, Calcutta 1.
- Associated Instrument Manufacturers (India) Pvt. Ltd.—8, Netaji Subhas Road, Calcutta 1.
- Associated Leather Enterprise Pvt. Ltd.—26, Lower Range, Calcutta 17.
- Associated Metal Industries of India Ltd.—16, Mangoe Lane, Calcutta 1.
- Associated Mining Industries Ltd.—4, Lyons Range, Calcutta 1.
- Associated Pigments Ltd.—14, Netaji Subhas Road, Calcutta 1.
- A. Stock & Co. Ltd.-3, Camac Street, Calcutta 16.
- Asutosh Mookerjee & Co. Pvt. Ltd.—12, Raja Woodmunt Street, Calcutta 1.
- Atherton & Co., Pvt. Ltd.—G., 21, R. N. Mookerjee Road, Calcutta 1.
- Atlantis East Ltd.—41, Chowringhee Road, Calcutta 16.
  Atlas Copco (India) Pvt. Ltd.—25, Brabourne Road, Calcutta 1
- Automatic Machine Co. India Pvt. Ltd.—3/1, Chowringhee Square, Calcutta 13.
- Avery India Ltd.—28-2, Waterloo Street, Calcutta 1.
- Aviquipo of India Pvt. Ltd.—22, Chittaranjan Avenue, Calcutta 13.
- Babcock & Wilcox of India Pvt. Ltd.—1 & 3, Brabourne Road, Calcutta 1.
- Badri & Co. Pvt. Ltd. -67/50/4B, Strand Road, Calcutta 1.
- Bagri Iron & Streel Co.—40/1, Shibtola Street, Calcutta 7. Bagri Steel Industries Pvt. Ltd.—138, Canning Street, Calcutta 1.
- Bahri & Co. Pvt. Ltd.—P-39, Mission Row Extension, Calcutta 13.
- Bajaj Electricals Ltd.—10, Ganesh Chandra Avenue, Calcutta 13.
- Bajoria Industrial Corporation.—P-38, India Exchange Place, Calcutta 1.
- Baker & Co.—71-A, Netaji Subhas Road, Calcutta 1.
- Baldeoram Saligram Pvt. Ltd.—61, Strand Road, Calcutta 1.
- Balmer Lawrie & Co., Ltd.—21, Netaji Subhas Road, Calcutta 1.
- Bando Industries.—35, Diamond Harbour Road, Alipore, Calcutta 27.
- Banerji & Co. Pvt. Ltd.—G. C., 20, Maharshi Devendra Road, Calcutta 7.
- Banerjee Chakraborty & Co. Pvt. Ltd.—135, Canning Street, Calcutta I.

- Banerji Industrial Enterprises.—15, Prafulla Sarkar Street, Calcutta 13.
- Bangur Brothers Ltd.—14, Netaji Subhas Road, Calcutta 1. Banij Udyog Pvt. Ltd.—P-15, New C.I.T. Road, Calcutta 12.
- Bankline India Pvt. Ltd.—6, Lyons Range, Calcutta 1.
- Banku Behari Paul & Co. Pvt. Ltd.—126, Old China Bazar Street, Calcutta 1.
- Bansal & Co. Ltd.—173, Park Street, Calcutta 17.
- Barakar Eng. & Foundry Works Ltd.—"Thapar House", 25, Brabourne Road, Calcutta 1.
- Basumati Pvt. Ltd.-166, B.B.G. Street, Calcutta 12.
- Bata Shoe Co. Pvt. Ltd.—Shakespeare Safani, Calcutta-17.
- Bathgate & Co. Ltd.—2, Dalhousie Square East, Calcutta 1.
- Batliboi & Co. Pvt. Ltd.—Gandhi House, 26, R. N. Mukherjee Road, Calcutta 1.
- B. B. Chatterjee & Co. Pvt. Ltd.—22, Raja Woodmunt Street, Calcutta 1.
- B. C. Nawn & Bros. Ltd.—7, Bipin Behari Ganguly Street, Calcutta 12.
- B. C. Paul & Co.—18, Netaji Subhas Road, Calcutta 1.
- B. Ghose & Co. Pvt. Ltd.—29, Mission Row Extension, Calcutta 13.
- Beharilal Benipershad Exports & Imports Pvt. Ltd.—144, Cotton Street, Calcutta 7.
- Belliss & Morcom (India) Ltd.—6, Little Russell Street, Calcutta 16.
- Bell's Asbestos & Engineering India Pvt. Ltd.—24, Chittaranjan Avenue, Calcutta 12.
- Belrex India Ltd.—10, Princep Street, Calcutta 13.
- Bengal Belting Works Ltd.—2, Dalhousie Square East, Calcutta 1.
- Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta-13.
- Bengal Corporation Pvt. Ltd.—4, Ganesh Chandra Avenue, Calcutta 13.
- Bengal Dental Supply Co. Pvt. Ltd.—175-4, Bowbazar Street, Calcutta 12.
- Bengal Electric Lamp Works Ltd., -7, Old Court House Street, Calcutta 1.
- Bengal Enamel Works Ltd.—41, Chowringhee Road, Calcutta 16.
- Bengal Engineering and Trading Co -30-D/2, Diamond Harbour Road, Calcutta 34.
- Bengal Engineering Co. Ltd.—12, Dalhousie Sqr. (East), Calcutta 1.
- Bengal Hardware & Tin Seal Mfg. Co —70, Netaji Subhas Road, Calcutta 1.
- Bengal Immunity Co., Ltd.-67, Southern Avenue, Calcutta 29.
- Bengal Industries.—23A, Netaji Subhas Road, Calcutta 1.
  Bengal Ingot Co. Ltd.—5, Hide Road, Kidderpore, Calcutta 43.
- Bengal-Linn (Industrial Furnace) Ltd.—41, Jawaharlal Nehru Road, Calcutta 16.
- Bengal Metrograph Co. Pvt. Ltd.- 53, Pramanick Ghat Road, Calcutta 36.
- Bengal & Overseas Trading Co.—1, Bonfield Lane, Calcutta 1.
- Bengal Phototype Co. Pvt. Ltd.—46-1, Amherst Street, Calcutta 9.

Bengal Porcelain Co. Ltd.—1/2, Eoti Seal Street, Calcutta 13.

Bengal Potteries Ltd.—45, Tangra Road, Calcutta 15.

Bengal Tools Ltd.— Todi Mansion, P-15, India Exchange Place, Calcutta 1.

Bengal Trading Co.— 70, Netaji Subhas Road, Calcutta 1.
Bengal Trading Corporation.— 127/1, Maniektola Main Road, Calcutta 54.

Bengal Transport Co.—11, Sarat Bose Road, Calcutta 20. Bengal United Co. Pvt. Ltd.—7A, Middleton Street, Calcutta 16.

Bengal Waterproof Works (1940) Ltd.—41, Shakespeare Sarani, €alcutta 17.

Bengal Wire Nails Co. Ltd.L6, Tiljala Road, Calcutta 46. Bennett, Coleman & Co. Ltd.—13-1 & 13-2, Govt. Place, East, Calcutta 1.

Bensen Industries.—96, Shree Arobindo Road, Salkia, Howrah.

Benson, S. H. (India) P. Ltd.—1, Auckland Place, Calcutta 17.

Bertrams-Scott (India) Ltd.—1/1 Kumber Street, Calcutta 17.

Bestobell India Pvt. Ltd.—21, Camac Street, Calcutta 16. Bhalotia Metal Mfg. Co.—3/1, Duffer Street, Lillooah, Howrah Temple Road, Calcutta 7.

Bharat Commerce & Industries Ltd.—10, Camac Street, Calcutta 17.

Bharat Electrical Industries Ltd.—5, Mission Row, Calcutta 1.

Bharat Engineering Co.—14/2, Old China Bazar Street, Calcutta 1.

Bharat Exports Ltd.—9B, Chowringhee Place, Calcutt 13. Bharat General and Textile Industries Ltd.—15, India Exchange Place, Calcutta 1.

Bharat Industries & Commercial Corporation.—Tower House, Chowringhee Square, Calcutta 1.

Bharat Line Ltd.—13, Brabourne Road, Calcutta 1.

Bharat Nidhi Ltd.-11, Clive Row, Calcutta 1.

Bharat Overseas Pvt. Ltd.—18-A, Brabourne Road, Calcutta 1.

Bharat Sheet Metal Industries Ltd.—22, Beerpara Lane, Dum Dum, Calcutta 30.

Bharati Private Ltd.—12, Netaji Subhash Road, Calcutta 12.

Bhowmick Engg. Co. Pvt. Ltd.—1, Chittaranjan Avenue, Calcutta 13.

Bhutoria Bros. Pvt. Ltd.—56, Netaji Subhas Road, Calcutta 1.

Bidyut Shilpa Ltd.- 372/66, Russa Road South, Calcutta 33.

Binani Commercial Co. Pvt. Ltd.— 42/1, Strand Road, Calcutta 7.

Binani Metal Works Ltd.— 38, Strand Road, Calcutta 1. Bird & Co. Pvt. Ltd.— Chartered Bank Bldgs., Calcutta 1. Biren Bose & Co. Pvt. Ltd.—P-24, Gariahat Road, Cal-

cutta 24.

Birkmyre Bros. Pvt. Ltd.—4, Dalhousie Square East,
Calcutta 1.

Birla Bros. Pvt. Ltd.-15, India Exchange Place, Calcutta 1.

B. K. Khanna & Co. Pvt. Ltd.—13, Chapel Road, Calcutta 22.

B. K. Shaw Industries Pvt. Ltd.—P. 3, B. K. Paul Avenue, Calcutta 5.

Blacker & Co. Pvt. Ltd.—L18, Strand Road, Calcutta 1.

Blackwood Hodge (India) Pvt. Ltd.— Euclid Works, 139, Beliaghata Road, Calcutta 15.

Blackwoods India Ltd. - 2, Mangoe Lane, Calcutta 1.

Bobb Framjee Ltd.—41-A, Free School Street, Calcutta 16. Bokaro & Ramgur Ltd.—18A, Park Street, Calcutta 1.

Bombay Ammonia Put. Ltd.— 5, Mission Row, Calcutta 1.

Bombay Co. Pvt. Ltd.—18-A, Brabourne Road, Calcutta 1. Bombay Trading Co. Pvt. Ltd.—14, Pagiyaputty Street, Calcutta 7.

Bonard & Co. Ltd.—5, Council House Street, Calcutta 1.
Bose M. L. & Co. Pvt. Ltd.—Lakshmibilas House, 14,
Jagannath Dutt Lane, Calcutta 9.

B. P. Khemka Pvt. Ltd.-5, Clive Row, Calcutta 1.

Bradma of India Ltd.—20-B, Park Street, Calcutta 16. Brady W. H. & Co. Ltd.—Mercantile Bldgs., Lall Bazar, Calcutta 1.

Brentford Electric (India) Ltd.—P25, Transport Depot Road, Calcutta 27.

Bridge & Roof Co. (India) Ltd.—22, Netaji Subhas Road, Calcutta 1.

Briggs R. V. & Co. Pvt. Ltd.—9, Bentinck Street, Calcutta 1.

Brijmehan Bros. Ltd.—90, Stephen House, 4, Dalhousie Square East, Calcutta 1.

Britannia Biscuit Co. Ltd.—15, Taratola Road, Calcutta 53.

British Electrical & Pumps Pvt. Ltd.—1-1B, Mission Row Calcutta 1.

British India Electric Construction Co. Ltd.—21, Netaji Subhas Road, Calcutta 1.

British India Steam Navigation Co. Ltd.—16, Strand Road, Calcutta 1. British Insulated Callender's Cables Ltd.—2/2B, Harring-

ton Street, Calcutta 16.

British Metal Corporation (India) Private Ltd.—22, Chitta ranjan Avenue, Calcutta 13.

British Overseas Airways Corpn.—41, Chowringhee Road, Calcutta 16.

Brocho & Co. Pvt. Ltd.—36, Weston Street, Calcutta 13.
 Brooke Bond India Pvt. Ltd.—9, Theatra Road, Calcutta 12.

B. R. Herman & Mohatta (India) Private Ltd.—19, British Indian Street, Calcutta-1.

B. S. Industries.—435, Jessore Road, Calcutta 28.

Buher (Asbestos) Pvt. Ltd.—12, Netaji Subhas Road, Calcutta 1.

Bunge & Co. Ltd.—8, Old Court House Street, Calcutta 1.
Burmah Oil Co. Ltd.—India Exchange Bldgs., 4, India Exchange Place, Calcutta 1.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd.—31, Dalhousie Square, Calcutta 1.

Burn & Co. Ltd.—12, Mission Row, Calcutta 1.

Burnet, Davies & Co. Ltd.—22, Canning Street, Calcutta 1.
Business Forms Ltd.—6A, Middleton Street, Calcutta 16.
Butto Kristo Neogi & Co.—14-2, Old China Bazar Street,
Calcutta 1.

Butto Kristo Paul & Co. Ltd.—92, Sovabazar Street, Calcutta 5.

Cadbury-Fry (India) P. Ltd.—9-A, Esplanade East, Calcutta 1.

Calcutta Chemical Co. Ltd.—35, Panditia Road, Calcutta 29.

Calcutta Commercial Co.—37, Strand Road, Calcutta 1.

Calcutta Credit Corpn.-24, Park Street, Calcutta 16.

Calcutta Engineering Co. (India) Pvt. Ltd.—1, British Indian Street, Calcutta 1.

Calcutta Expanded Metal Mfg. Co. Pvt. Ltd.—P-16, Kalakar Street, Calcutta 7.

Calcutta Industrial Chemicals & Minerals Co. Pvt. Ltd.—43, Dharamtolla Street, Calcutta 13.

Calcutta Metal Industries Ltd.—14/6, Sovaram Bysack Street, Calcutta 7.

Calcutta Metallic Co.—11, Harish Mukherjee Road, Calcutta 25.

Calcutta Mineral Supply Co. Private Ltd.—31, Jackson Lane, Calcutta 1.

Calcutta Pencil Industries.—22, Canal South Road, Calcutta 15.

Calcutta Phototype Co. Ltd.—6, Chowringhee, Calcutta 13. Calcutta Safe Deposit Co. Ltd.—22-B, Netaji Subhas Road, Calcutta 1.

Calcutta Tube Co.—21-A, BRBB Road, Calcutta 1.

Calcutta Wax Traders & Co. Pvt. Ltd.—10, Clive Row, Calcutta 1.

Callarman J. Ltd.-40, Elliot Road, Calcutta 16.

Caltex (India) Ltd .- 10, Camac Street, Calcutta 17.

Cambray R. & Co. Pvt. Ltd.—Kent House, P-33, Mission Row Extn., Calcutta 13.

Canteen Equipment Trading Co.—22, Shyampukur Street, Calcutta 6.

Capco Pvt. Ltd.—14, Netaji Subhas Road, Calcutta 1.

Caprihans India Pvt., Ltd.— 8-A, Rawdon St., Calcutta 17. Cardboard Materials & Printing Co. Ltd.—7, Convent Road, Entally, Calcutta 14.

Carew & Co. Ltd.—6, Old Court House Street, Calcutta 1. Cargo Inspectors & Superintendence Co. Pvt. Ltd.—17, Brabourne Road, Calcutta 1.

Carlie Lawrie & Co.—1, British Indian Street, Calcutta 1. Carrit Moran & Co. Pvt. Ltd.—9, R. N. Mukherjee Road, Calcutta 1.

Carter Pooler & Co. Pvt. Ltd.—1, Kashi Nath Dutta Road, Calcutta 36.

Castings Corporation (India) Pvt. Ltd.—45, Madhusudan Pal, Chowdhury Lane, Howrah.

Castlewood (India).—12G, Park Street, Calcutta 16.

Castrol Ltd.—14, India Exchange Place, Calcutta 1.
Cement Marketing Co. of India Ltd.—Bombay Mutual
Assurance Bldg., Calcutta 1.

Cementation Company Ltd.—"Anar Chambers", 5, Chowringhee Approach, Calcutta 13.

Century Components Co. Pvt. Ltd.—44-A, Wellesley Street, Calcutta 16.

Ceramic Sales Corporation Ltd.—41, Jawaharlal Nehru Road, Calcutta 16.

Chaman Industries Pvt. Ltd.—9, Rabindra Sarani, Calcutta 16.

Chancham & Worah Pvt. Ltd.—18, Netji Subhas Road, Calcutta.

Chandi Charan Nayak Pvt. Ltd.—124-1, BBG Street, Calcutta 12.

Chandras' Chemical Enterprises Pvt. Ltd.—P-24, C.I.T. Road, Calcutta 14.

Chatterjee R. M. & Sons Pvt. Ltd.—49, Sitanath Bose Lane, Howrah.

Chemical Plant & Equipment Ltd.—66, Dharamtolla Street, Calcutta 13.

Chemo Therapeutics (India) Pvt. Ltd.—30/1A, Grey Street, Calcutta 5.

Chicago Telephone & Radio Co. Pvt. Ltd.—25, Chow-ringhee, Calcutta 13.

Chika Pvt. Ltd.-31-B, Dent Mission Road, Calcutta 23.

Chimanlal Desai & Co. - 54, Bentinck Street, Calcutta 1.

Choudari Metal Industries Pvt. Ltd.—14, Pollock Street, Calcutta 1.

Chowdhury Industries Corpn. Pvt. Ltd.—6, Middleton Street, Calcutta 16.

Chowgule & Co. (Hind) Ltd.—7, Chittaranjan Avenue, Calcutta 13.

Chowringhee Sales Bureau Pvt. Ltd.—3A, Chowringhee Road, Calcutta 13.

Chunilal Prabhudas & Co. (Calcutta) Pvt. Ltd.—55/58, Canning Street, Calcutta 1.

Cieco Pvt. Ltd.—2-1, Barrackpore Trunk Road, Barnagore, Calcutta 50.

Cinecita P. Ltd.-6/3, Madan Street, Calcutta 13.

Cirugia De Lux Ltd.—24, Chowringhee Road, Calcutta 13.
C. K. Sen & Co. Pvt. Ltd.—Jabakusum House, 34, C. R. Avenue, Calcutta 12.

Cleveland Construction Co. Pvt. Ltd.—Gillanders House, Netaji Subhas Road, Calcutta 1.

Coates of India Pvt. Ltd.—3, Canal East Road, Calcutta 4. Cobin Pvt. Ltd.—P-19, Durga Road, Calcutta 16.

Coles Cranes of India Ltd.—517, B. T. Road, Calcutta 58.
Commercial & Engineering Corpn.—138, Canning Street,
Calcutta 1.

Commercial & Industrial Exports Ltd.—16, Hare Street, Calcutta 1.

Commission Agents Pvt. Ltd.—97, Stephen House, 5, Dalhousie Square, Calcutta 1.

Components and Machinery Corporation, 9/12—Lall Bazar Street, Calcutta 1.

Consolidated Construction Co., Ltd.—P-12, Mission Row Extn., Calcutta 1.

Consolidated Pneumatic Tool Co. Ltd.—30, Jawaharlal Nehru Road, Calcutta 1.

Construction & Mining Equipment Co. Pvt. Ltd.—6, Old Post Office Street, Calcutta 1.

Containers & Closures Ltd .-- 2, Fairlie Place, Calcutta 1.

Continental Commercial Co. Pvt. Ltd.—2-1, Old Court House Corner, Calcutta 1.

Continental Plant Machinery Co. Pvt. Ltd.—16, Hare Street, Calcutta 1.

Cooke & Kelvey Ltd.—20, Old Court House Street, Calcutta 1.

Coomar P. C. & Sons (Hardware) Pvt Ltd.—145, Netaji Subhas Road, Calcutta 1.

Corrugating & Paper Processing Co., Pvt. Ltd.—243, Barrackpore Trunk Road, Calcutta 36.

Cresswell W. S. & Co. Pvt. Ltd.—3, Clive Row, Calcutta 1. Cromelite (India) Pvt. Ltd.—P-35, India Exchange Place, Calcutta 1.

Crompton Greaves Ltd.—21, Rajendra Nath Mukherjee Road, Calcutta 1.

Crossley & Towers Pvt. Ltd.—100, Dilkusa Street, Calcutta 17.

Cruickshank & Co. Ltd.—4/5, Bankshall Street, Calcutta 1. Cuthbertson & Harper (India) Ltd.—10, Government Place, Calcutta 1.

Dabross Industrial Co. Pvt. Ltd.—108, Borin Roy Road, Calcutta 34.

Dacca Ayurvedic Pharmacy Ltd.—195, Prince Anwar Shah Road, Calcutta 45. Daga & Co. Pvt. Ltd.-16, Hare Street, Calcutta 1.

Dalmia Cement (Bharat) Ltd.—4, Dalhousie Sqr. East, Calcutta 1.

Dalmiya M. L. & Co.—76, Ashutosh Mukherji Road, Bhowanipore, Calcutta 25.

Das Gupta & Co. Ltd.—15, Mahendradal Sircar Road, Calcutta 12.

Das Reprographics Pvt. Ltd.—Taratolla Road, Calcutta 53.

Dass & Co. (India) Pvt. Ltd.—43, Dharamtolla Street, Calcutta 53.

Dass S. C. & Co. Pvt. Ltd.—178, Belilios Road, Howrah, Calcuttæ 1.

Dass Zimmermann Pvt. Ltd.—10, Taratola Road, Calcutta 53.

Dattas India Pvt. Ltd.—24, Strand Road, Calcutta 1.

Davenport & Co. Pvt. Ltd.—5 & 7, Netaji Subhas Road, Calcutta 1.

Davy-Ashmore (India) Ltd.—6-A, Middleton Street, Calcutta 16.

Daw Sen & Co. Pvt. Ltd.—10, Lindsay Street, Calcutta 16.

Day Bannermann & Co. Ltd.—27, Waterloo Street,
Calcutta 1.

Dazzle Products Ltd.—13/1, Mohanlal Babalwalla Road, Howrah.

D. C. M. Products (1937) Pvt. Ltd.—9, Convent Road, Calcutta 14.

Debsons Pvt. Ltd.-2, Madan Street, Calcutta 13.

Denis Malcolm & Co. Pvt. Ltd.—8, Netaji Subhas Road, Calcutta.

DeLuxe Pvt. Ltd.—82A, Chowringhee Centre, Calcutta 13. Depenning & Depenning.—28, Ezra Mansion, 10, Govt. Place East, Calcutta 1.

Development of Industries (India) Pvt. Ltd.—135, Princep Street, Calcutta 13.

Development of Metal Industries Ltd.—72/1-B, Lansdowne Road, Calcutta 25.

Dewrance Macneil & Company Ltd.—2, Fairlie Place, Calcutta 1.

Dey's Medical Stores Private Ltd.—6/D, Lindsay Street, Calcutta 16.

D. H. Brothers Ltd.—26, Ganesh Chandra Avenue, Calcutta 13.

Dhakuria Engineering Works Pvt. Ltd.—13, India Exchange Place, Calcutta-1.

Dhur Galvanizing Work (1955) Ltd.—92, Ultradanga Main Road, Calcutta 4.

Diamond Products Ltd .- 2, Fairlie Place, Calcutta 1.

Diana Rolling Shutters & Engineering Works.—114, Princep Street, Calcutta 13.

Dies & Tools Ltd.—11, R. N. Mukherjee Road, Calcutta 1. Dilaverkhan & Rahimkhan Co. Pvt. Ltd.—12, Amratolla Lane, Calcutta 1.

D. N. Bakshi & Sons Pvt. Ltd.—152-B, Mahatma Gandhi Road, Calcutta 7.

Dodsal Pvt. Ltd.—2, Brabourne Road (8th Floor), Calcutta 1.

Dolphin Laboratories Pvt. Ltd.—1, Allerby Road, Calcutta 20.

Don Watson & Co. Ltd.—19, British India Street, Calcutta 1.

Dorr-Oliver India Ltd.—56A, Free School Street, Calcutta 16.

Dost Mohammad & Co. Pvt. Ltd.—1, Chowringhee Square, Calcutta 1. Dr. Paul Lohmann (India) Ltd.—East Angalia House, 3, Camac Street, Calcutta 16.

Ducat & Co. Pvt. Ltd., W.F.—5, Clive Row, Calcutta 1.

Duff Thomas & Co. India Pvt. Ltd.—2 & 3, Clive Row, Calcutta 1.

Duncan Bros. & Co. Ltd.—31, Netaji Subhas Road, Calcutta 1.

Dunlop India Ltd.—Dunlop House, 57-B, Free School Street, Calcutta 16.

Durlov Chandra Singha Pvt. Ltd.—58, Clive Street, Calcutta 7.

Dutt & Co. Pvt. Ltd.—76/1, Cornwallis Street, Calcutta 6.
Dwarkin & Son Pvt. Ltd.—8-2, Esplanade East, Calcutta 1.

E. A. Currim Pvt. Ltd.—14, Chittaranjan Avenue, Calcutta 13.

Eagle Commercial Co. Pvt. Ltd.—16, Princep Street, Calcutta 13.

Eagle Lithographing Co. Pvt. Ltd.—26/B, Christopher Road, Calcutta 46.

East Anglia Plastics (India) Ltd.—3, Camae Street, Calcutta 16.

East End (India) Pvt. Ltd.—35, Chittaranjan Avenue, Calcutta 12.

East India Commercial Co. Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.

East India Corporation Ltd.—18, Netaji Subhas Road, Calcutta 1.

East India Metal Co. Ltd.—41/1-B, Ram Kanta Bose Street, Calcutta 3.

East India Trading Co.—2, Church Lane, Calcutta 1.

East Indies Trading Corporation.—12-B, Clive Row, Calcutta 1.

Eastern Accumulator Co.—3-1, Mangoe Lane, Calcutta 1. Eastern Company Pvt. Ltd.—114, Stephen House, Calcutta 1.

Eastern Electric & Engineering Co. Pvt. Ltd.— 25, Chowringhee, Calcutta 13.

Eastern Equipment and Sales Ltd.—24-B, Park Street, Calcutta 16.

Eastern Importers Syndicate.—10, BRBB Road, Calcutta 1.

Eastern India Services & Marketing Co. Ltd.—14, Radha Bazar Lane, Calcutta 1.

Eastern Industries Co. - 9/4, Patula Lane, Calcutta 9.

Eastern Industrial Corporation.—142/1, Radhabazar Street, Calcutta 1.

Eastern Metalizing Co. Pvt. Ltd.—6, Gopal Dr. Road, Calcutta 1.

Easun Engg. Co. Ltd.—20A, Camac Street, Calcutta 16. Economic Tanks Supply Co.—100, Mahatma Gandhi

Road, Calcutta 7.

Economic Transport Organisation.—P-3, New CIT Road,
Calcutta 12.

Edna Lorenz Ltd.—Suite 7, Chowringhee Mansion, Calcutta 16.

Edward Keventer Pvt. Ltd.—11/3, Lindsay Street, Calcutta 16.

Edward Miller & Co.—20, Strand Road, Calcutta 1.

Electric Construction & Equipment Co., Ltd.—9, Kaliprasanna Singhee Road, Calcutta 2.

Electrical Machines Corporation Pvt. Ltd.—51, Canal East Road, Calcutta 10.

Electrical Mfg. Co. Ltd.—136, Jessore Road, Calcutta 28. Electro-Chemical Industries Co.—27, Bipin Mitter Lane, Calcutta 4. Electro-Control Pvt. Ltd. - 2, Church Lane, Calcutta 1. Electro Steel Casting Ltd.- Stephen House, 4, Dalhousie Square East, Calcutta 1.

Elias B. N. & Co. Pvt. Ltd.- Norton Bldgs., 1-2, Old Court House Corner, Calcutta 1.

Engel India Machines & Tools Ltd.-6 Old Post Office Street, Calcutta 1.

Engineering Corporation .- 38, N. S. Road, Calcutta 1.

Engineering Materials Supply Co.-2, Bepin Pal Road, Calcutta 26.

Engineering Times Publications Pvt. Ltd.-8, Dharamtolla Street, Calcutta 13.

English Electric Co. of India Ltd. -8, Netaji Subhas Road, Calcutta 1.

Equitable Trading Co. Ltd.- 158-C, Dharamtala Street, Calcutta 13.

Epcal India Pvt. Ltd.-P34, C. I. T. Road (5 floor), Calcutta 14.

Eskaps (India) Pvt. Ltd.-30, Chowringhee Road, Calcutta 16.

Ess Lahiri & Co. Pvt. Ltd. - 2, Church Lane, Calcutta 1.

Esso Standard Eastern Inc. - 6, Church Lane, Calcutta 1.

Everett Steamship Corpn. - 4, Government Place (N), Calcutta 1.

Everlite Insulating Industries Pvt. Ltd.-25, Swallow Lane, Calcutta 1.

Exporters and Distributors (India) Pvt. Ltd. - 20, Mangoe Lane, Calcutta 1.

Express Newspapers Ltd.- 18-A, Brabourne Road, Calcutta 1.

Eyre Smelting Pvt. Ltd.- 5, Hide Road, Calcutta 43.

Far-Eastern Agencies Ltd.-P-14, Mission Row Extn., Calcutta 1.

Favre-Leuba & Co. Pvt. Ltd.-1, Old Court House Corner, Calcutta 1.

Fenner J. H. & Co. (India) Ltd. - 56D, Free School Street, Calcutta 16.

Figgis A. W. & Co. Pvt. Ltd.- D6, Gillander House, Calcutta 1.

Firestone Tyre & Rubber Co. of India Pvt. Ltd.- 18, Camac Street, Calcutta 16.

Flash Lights (India) Pvt. Ltd.-135, Princep Street, Calcutta 13.

Flurry's Swiss Confectionery Pvt. Ltd.- 18, Park Street, Calcutta 16.

Fogt, G. M. & Co. Pvt. Ltd. - 1, Park Mansion, Park Street, Calcutta 16.

Fort Gloster Industries Ltd. - 31, Chowringhee Road, Calcutta 16.

Fotic Lall Seal & Sons Pvt. Ltd.-10, Swallow Lane, Calcutta 1.

Francis Klein & Co. Pvt. Ltd.-1, India Exchange Place, Calcutta 1.

Frank Rose & Co. Ltd.- 7, Chowringhee, Calcutta 13. Fraser & Co., Ltd. - Fairlie House, 4, Fairlie Place, Cal-

cutta 1. French Motor Car Co. Ltd.-234-3, Lower Circular Road,

Calcutta 20.

Fritz & Singh Pvt. Ltd.-227, Netaji Subhas Road, Calcutta 1.

F. W. Heilgers & Co. Pvt. Ltd.—Chartered Bank Bldgs., Calcutta 1.

G. Ambalal Export Pvt. Ltd.-11, R. N. Mukherjee Road, Calcutta 1.

G. A. Randerian Pvt. Ltd.—21, Zakeria Street, Calcutta 13.

G. D. Pharmaceuticals Pvt. Ltd. - 9, Girish Avenue, Calcutta 3.

G. Gerambhai Exports Pvt. Ltd. - G.P.O. Box No. 157, Calcutta 1.

Ganga Saran & Sons Pvt. Ltd. - 1, Gilson Lane, Calcutta 1. Gangadhur Banerjee & Co. Pvt. Ltd.—Bakulia House, Kidderpore, Calcutta 23.

Ganges Agencies Pvt. Ltd. - 32, Cross Street, Calcutta 7.

Ganges Mfg. Co. Ltd. - 18, Rabindra Sarani, Calcutta 1.

Ganges Printing Co. Ltd. - 2, Fairlie Place, Calcutta 1. Ganges Rope Co. Ltd. - 2, Fairlie Place, Calcutta 1.

Garden Reach Workshops Ltd.-43/46, Garden Reach, Calcutta 24.

General Commercial Corpn.—41, Upendra Banerjee Road, Calcutta 54.

General Electric Co. of India Pvt. Ltd.-Magnet House, Chittaranjan Avenue, Calcutta 13.

General Equipment Merchants Ltd .- 9, Mission Row, Calcutta 1.

General Fibre Dealers Ltd.-India Exchange Building, Calcutta 1.

General Merchandise Dealers Ltd.—135, BRBB Road, Calcutta 1.

General Radio & Appliances Pvt. Ltd.-3, Madan Street, Calcutta 13.

General Superintendence Co. (India) Pvt. Ltd.-4, Government Place North, Calcutta 1.

General Trading Corpn. Ltd.—8-B, Lall Bazar Street, Calcutta 1.

Geo Miller & Co. Ltd .- 7, Hastings Street, Calcutta 1.

Geoffrey Manners & Co. Pvt. Ltd.-2, Saklat Place, Calcutta 13.

George Salter India Ltd.—Chartered Bank Bldgs., Calcutta 1.

George Spencer Moulton & Co. (India) Pvt. Ltd.-11 & 12, Explanade Mansions, Calcutta 1.

George Vint & Bhalla (I) Pvt. Ltd.-2, BAC Street, Calcutta 13.

Germline Ltd.-173, Sarat Ghose Garden Road, Calcutta 31.

Gestetner Duplicators Pvt. Ltd.—18, Rabindra Sarani, Calcutta 16.

Getz Bros. & Co.—9, Brabourne Road, Calcutta 1.

Giemce Traders Ltd.—26, Nakuleswar Bhattacharya Lane, Calcutta 26.

Gillanders Arbuthnot & Co. Ltd.—Gillander House, Netaji Subhas Road, Calcutta 1.

Gladstone Lyall & Co., Ltd.-4, Fairlie Place, Calcutta 1. Glaxo Laboratories (India) Pvt. Ltd.-50, Hide Road, Kidderpore, Calcutta 27.

Gluconate Ltd.—23, Camac Street, Calcutta 16.

Gobindo Sheet Metal Works and Foundry.—210, Mahatma Gandhi Road, Calcutta 7.

Godrej & Boyce Mfg. Co. Ltd.—23A, N. S. Road, Calcutta 1.

Goodman & Co. (India) Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.

Goodyear India Ltd.—225C, Acharya J. B. Road, Calcutta 20.

Gramophone Co. of India Pvt. Ltd.—33, Jessore Road, Dum Dum, Calcutta 28.

Graphite India Ltd.—14, Netaji Subhas Road, Calcutta 1. Great National Trading Co. Pvt. Ltd.-15,071, Nalin Sarkar Street, Calcutta 4.

Greaves Cotton & Co. Ltd.-25, Brabourne Road, Calcutta 1.

Greentose International Traders.—37, Strand Road, Calcutta 1.

Gripex (India) Ltd.—C-6, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

G. S. Emporium (Agency) Ltd.—16, India Exchange Place, Calcutta 1.

Guest Keen Williams Ltd.—7, Belvedere Court, Calcutta 20.

Gunpatroy Pvt. Ltd.—Mica House, 2, Pretoria Street, Calcutta 16.

Gwalior Webbing Co. Ltd.—15, India Exchange Place, Calcutta 1.

Hada Tools Ltd.—10-A, Harrington Street, Calcutta 16.
Hall & Anderson Ltd.—31, Chowringhee Road, Calcutta 16.

Halwasiya Pvt. Ltd.—46/1-A, Chowringhee Road, Calcutta 16.

Hamilton & Co. Pvt. Ltd.—8, Old Court House Street, Calcutta 1.

Hanuman Publishing Co. Pvt. Ltd.—165, Bepin Behary Ganguly Street, Calcutta 12.

Hanumanbax Surajmall Pvt. Ltd.—20, R. N. Mukherjee Road, Calcutta 1.

Harbans Lall Malhotra & Sons Pvt. Ltd.—12, New CIT Road, Calcutta 12.

Harrisons & Crosfield Ltd.-6, Church Lane, Calcutta 1.

Harry, S. D. & Co. Pvt. Ltd.—640, Rabindra Sarani, Calcutta 3.

Harshadray Pvt. Ltd.—23, Brabourne Road, Calcutta 1.

H. C. Giddings Private Ltd.—3, Chittaranjan Avenue, Calcutta 13.

Head Wrightson India Ltd.—30 Middleton Row, Calcutta \_\_16.

Heath & Co. (Calcutta) Pvt. Ltd.—11, Weston Street, Calcutta 13.

Heatly & Gresham Ltd.—31, Chittaranjan Avenue, Calcutta 12.

Hein Lehmann (India) Ltd.—16, Hare Street, Calcutta 1. Hemanta Kumar Deyasi & Bros. Pvt. Ltd.—21, Maharshi Debendra Road, Calcutta 7.

Henderson George & Co. Ltd.—4, Clive Row, Calcutta 1.
Henry Morgan & Co.—71-A, Netaji Subhas Road, Calcutta 1.

Herbertsons Ltd.—48, Stephen House, Dalhousie Square (E), Calcutta 1.

Heroes Engineering Works Pvt. Ltd.—20, Paul Street, Calcutta 4.

H. Guru Instruments Pvt. Ltd.—2A, Shakespeare Sarani, Calcutta 16.

Hill Elliot & Co. Pvt. Ltd.—22, Chittaranjan Avenue, Calcutta 13.

Himani Pvt. Ltd.—3, Khelat Babu Lane, Calcutta 2.

Hind Associated Corporation Pvt. Ltd.—P. 23-24, Radha Bazar Street, Calcutta 1.

Hind Construction & Engineering Co. Ltd.—9, Brabourne-Road, Calcutta 1.

Hind General Mercantile Agency Ltd.—8, Lyons Range, Calcutta 1.

Hind General Trading Co. Pvt. Ltd.—59/60, Strand Road, Calcutta 1.

Hind Overseas Pvt. Ltd.—7, Narain Prasad Babu Lane, Calcutta 7.

Hind Refractories Ltd.—135, Beplabi Rashbehari Basu Road, Calcutta 1.

Hindustan Aluminium Corporation Ltd.—27-B, Camac Street, Calcutta 16.

Hindustan Development Corporation Ltd.—27, Sir R. N. Mukherjee Road, Calcutta 1.

Hindustan Ferodo Ltd.—20/A, Camac Street, Calcutta 16. Hindustan Investment Corpn. Ltd.—8, Royal Exchange Place, Calcutta 1.

Hindustan Lever Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta 1.

Hindustan Motors Ltd.—15, India Exchange Place, Calcutta 1.

Hindustan Times .-- 7, Hastings Street, Calcutta 1.

Hindustan Twyfords Ltd.—2, Wellesley Place, Calcutta 1. Hindusthan Building Society Ltd.—Hindusthan Building, 4, Chittaranjan Avenue, Calcutta 13.

Hindusthan Dealers Ltd.—54, Ezra Street, Calcutta 1. Hindusthan Engineering & Construction Co.—2, Church Lane, Calcutta 1.

Hindusthan Gas & Industries Ltd.—36, Ganesh Ch. Avenue, Calcutta 13.

Hindusthan Musical Products Ltd.—6/1, Akur Dutt Lane, Calcutta 12.

Hindusthan Refractories & Ceramics Pvt. Ltd.—20, Netaji Subhas Road, Calcutta 1.

Hindusthan Sheet & Metal Co. Pvt. Ltd.—9, Clive Row, Calcutta 1.

Hindusthan Small Tools Pvt. Ltd.—4, Mandrilla Gardens, Calcutta 19.

Hindusthan Thompson Ltd. 20 Pondel Ponds Calcutta 20.

Hindusthan Thompson Ltd.—30, Bondel Road, Calcutta 19. Hoare, Miller & Co. Ltd.—5, Fairlie Place, Calcutta 1.

Hoechst Dyes & Chemicals Ltd.—4, Govt. Place North, Calcutta 1.

Holmes Wilson & Co. Ltd.—Stephen House, 4, Dalhousie Square, East, Calcutta 1.

Hooghly Docking & Engg. Co. Ltd.—6, Howrah Road, Salkia, Howrah.
Hooghly Ink Co. Ltd.—67/A, Ballygunge Circular Road,

Calcutta 19.
Hooghly Printing Co. Ltd.—8, Clive Row, Calcutta 1.

Howrah Engineering Concern Pvt. Ltd.—153/154, Madhusudan Pal Choudhury Lane, Howrah.

Howrah Motor Co. Pvt. Ltd.—16, R. N. Mukherjee Road, Calcutta 1.

Howrah Trading Co. Ltd.—144/145, Jogendranath Mukherjee Road, Howrah, Calcutta 7.

H. G. Fewkes & Co. Put. Ltd.—44 R. Roff Ahmed Widness

H. G. Fewkes & Co. Pvt. Ltd.—44-B, Rafi Ahmed Kidwai Road, Calcutta 16.

Hyderabad Allwyn Metal Works Ltd.—6/1, Dilarjang Road, Cossipore, Calcutta 2.

Hyderabad Asbestos Cement Products Ltd.—2, Brabourne Road, Calcutta 1.

Hydrolifts & Equipment Pvt. Ltd.—10/1, Princep Street, Calcutta 13.

Ibcon Pvt. Ltd.-5, Russel Street, Calcutta 16.

I. B. M. World Trade Corpn.—28, Camac Street, Calcutta 16.

Ideal Metal Industries Pvt. Ltd.—5, Raja Subodh Mullick Square, Calcutta 13.

Ilford Selo (India) Pvt. Ltd.—15, Chittaranjan Avenue, Calcutta 13.

Imkemex India Ltd.—34, Chowringhee Road, Calcutta 16.
Imperial Chemical Industries (India) Pvt. Ltd.—18,
Strand Road, Calcutta 1.

Imperial Hardware Co.—6, Garialvat Road (South), Calcutta 13.

Imperial Tobacco Co. of India Ltd.—37, Chowringhee Road, Calcutta 16.

Inchek Tyres Ltd.—19, Chowringhee Road, Calcutta 13. Indequip Ltd.—1 & 2, Old Court House Street, Calcutta 1.

India Alkalies Ltd. -5, Garstin Place, Calcutta 1.

India Capacitors Pvt. Ltd.-49/1, Gariahat Road, Calcutta 19.

India Carbon Ltd .-- 6, Old Post Office Street, Calcutta 1. India Engineering Co.-20, Sree Krishna Bhakat Lane, Howrah, Calcutta 1.

India Engineering Corpn.—20, Strand Road, Calcutta 1. India Foils Ltd.-Kamarhatti, Calcutta 58.

India Furnace Co. Pvt. Ltd.-27-29, Brabourne Road,

India Hard Metals Pvt. Ltd.-49/1, Gariahat Road, Calcutta 19.

India Linoleums Ltd .- 9/1, R. N. Mukharji Road, Calcutta 1.

India Machinery Co. Ltd.—Dassnagar, Howrah.

India Potteries Ltd.—91, Dharamtolla Street, Calcutta 13. India Refractories Ltd.-23/24, Radha Bazar Street, Calcutta 1.

India Steamship Co. Ltd.—India Steamship House, 21, Old Court House Street, Calcutta 1.

India Tobacco Co. Ltd.—93/1, Circular Garden Reach Road, Calcutta 43.

India Tin Box & Metal Works Pvt. Ltd.—134, Jessore Road, Calcutta 55.

India Tyre & Rubber Co. (India) Pvt. Ltd.—1, Waterloo Street, Calcutta 1.

India United Chemical Distributors Ltd.-25, Swallow Lane, Calcutta 1.

Indian Agency Pvt. Ltd.-6, Mangoe Lane, Calcutta 1. Indian Aluminium Co. Ltd .- 1, Middleton Street, Calcutta 16.

Indian Cable Co. Ltd .- 9, Hare Street, Calcutta 1.

Indian Explosive Ltd. -34, Chowringhee Road, Calcutta 16. Indian Hume Pipe Co. Ltd.—123-A, Rash Behari Avenue, Calcutta 29.

Indian Import & Export Co. Pvt. Ltd.—36, Ezra Street, Calcutta 1.

Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta 1. Indian Mechanisation & Allied Products Ltd.,-6, Hastings Street, Calcutta 1.

Indian Minerals & Associated Industries.—12-B, Netaji Subhas Road, Calcutta 1.

Indian National Diesel Engine Co. Ltd.—31, Chowringhee Road, Calcutta 16.

Indian Oxygen Ltd.—P, 34, Taratolla Road, Calcutta 53. Indian Pin Mfg. Co. Pvt. Ltd.-14/1B, Ezra Street, Calcutta 1.

Indian Standard Wagon Co. Ltd.- 12, Mission Row, Calcutta 1.

Indian Terrazo & Patent Floors Ltd.—16, Mangoe Lane, Calcutta 1.

Indian Tools Corpn. - 7, Jorabagans Street, Calcutta 6. Indian Trading Bureau Pvt. Ltd.—7/1, Mahatma Gandhi

Road, Calcutta 9. Indian Tube Co. Ltd.-41, Chowringhee Road, Calcutta 16.

Indian Turpentine and Rosin Co. Ltd. - 22, Sait Gota Lane, Howrah.

Indian Union Traders Ltd.-12, Dalhousie Square East, Calcutta 1.

Indian Wood Products Co. Ltd.—Gillander House, Netaji Subhas Road, Calcutta 1.

Indo-American Commerce Pvt. Ltd.-35, Chittaranjan Avenue, Calcutta 12.

Indo-American Electricals Ltd.-21, Old Court House Street, Calcutta 1.

Indo-Burma Petroleum Co. Ltd.—Gillander House, Netaji Subhas Road, Calcutta 1.

Indo-European Agency Pvt. Ltd.- 67, Ezra Street, Calcutta 1.

Indo-European Machinery Co. Pvt. Ltd.- 5, Bentinck Street, Calcutta 1.

Indo-Mineral Corpn. - 32, J. L. Bazaz Street, Calcutta 7.

Indo-Swiss Trading Co. Pvt. Ltd. - Kent House, 14, Ganesh Chandra Avenue, Calcutta 13.

Indra Singh & Sons. Pvt. Ltd. - 7, Wellesley Place, Calcutta 1.

Industrial Accessories Supply Corpn. - 47, Kalidas Patitundi Lane, Calcutta 26.

Industrial Chemical Corpn. Ltd. - 22, Brabourne Road, Calcutta 1.

Industrial Electrodes & Gauges Ltd.-15, Ganesh Chandra Avenue, Calcutta 13.

Industrial Gases.-15, Ganesh Chandra Avenue, Calcutta 13.

Industrial Importers Pvt. Ltd.-34, Stephen House, 4, Dalhousie Square East, Calcutta 1.

Industrial Instrument Co.—P. 34, Mission Row Extension, Calcutta 13.

Industrial Plants Ltd.-10, Camac Street, Calcutta 16.

Industrial Syndicate Pvt. Ltd.—119-B, Ripon Street, Calcutta 16.

Ingersol-Rand (India) Pvt. Ltd.-7, Wellesley Place, Calcutta 1.

Inter-Continental Trading Corpn.—12-B, Netaji Subhas Road, Calcutta 1.

International Combustion (India) Pvt. Ltd.-101, Park Street, Calcutta 16.

International Combustion (I.) Pvt. Ltd.-101, Park Street, Calcutta 16.

International Computers & Tabulators (India) Pvt. Ltd.— P-15, India Exchange Place Extension, Calcutta 1.

International Equipment Corpn. Pvt. Ltd.- 7, Hare Street, Calcutta 1.

International Exporters Pvt. Ltd. - 5, Synagogue Street, Calcutta 1.

International General Electric Co. (India) Pvt. Ltd.-7, Wellesley Place, Calcutta 1.

International Linkers Pvt. Ltd.- P-22, Swallow Lane, Calcutta 1.

International Remedies Pvt. Ltd. -66/40, Porulkutcha Road, Calcutta 34.

International Sales Corpn. Pvt. Ltd. - 48, Circus Avenue, Calcutta 17.

International Tools Co.- 67/B, Netaji Subhas Road, Calcutta 1.

International Tyres & Motors Pvt. Ltd.-2, Rowland Road, Calcutta 20.

Intertrade Publication (India) Pvt. Ltd.-55, Gariahat Road, Calcutta 19.

I. R. C. Steels Ltd.-7A, Delhi Serampur Road, Calcutta 14.

Irmeco Pvt. Ltd.—44/2, D. H. Road, Calcutta 27.

ISGEC John Thompson Ltd. - 8, Chittaranjan Avenue, Calcutta 13.

Ispahani Ltd. - 51, Ezra Street, Calcutta 1.

Italab Pvt. Ltd.—10, Lall Bazar Street, Calcutta 1.

Ivan Jones Ltd.—18-B, Brabourne Road, Calcutta 1.

- J. & P. Coats (I) Pvt. Ltd.—27, Free School Street, Calcutta 16.
- Jagannath Gupta & Co. Ltd.— 7-B, Clive Row, Calcutta 1. Jagdishprashad Pannalal & Co. Pvt. Ltd.—7, Amaratolla Street, Calcutta 1.
- Jaipur Udyog Ltd .-- 11, Clive Row, Calcutta 1.
- Jaipuria Group of Industries.—33, Netaji Subhas Road, Calcutta 1.
- Jalan Bros. Pvt. Ltd.—178, Mahatma Gandhi Road, Calcutta 7.
- Jalan Industries Pvt. Ltd.—62, Ballygunge Circular Road, Calcutta 19.
- James Fénlay & Co. Ltd.—2, Netaji Subhas Road, Calcutta 1.
- James Lord & Sons Ltd.-19, Strand Road, Calcutta 1.
- James Murray & Co. Pvt. Ltd.—5, Old Court House Street, Calcutta 1.
- James Warren & Co. Ltd.—31, Chowringhee Road, Calcutta 16.
- James Wright Ltd.—22, Chittaranjan Avenue, Calcutta 13.
   Jammi Venkataramanayya & Sons.—132-1, Harrison Road, Calcutta 7.
- Jardine Henderson Ltd.-4, Clive Row, Calcutta 1.
- Jatia Mfg. & Investment Co. Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.
- Java Bengal Line.—5 & 7, Netaji Subhas Road, Calcutta 1.
  Jayanti Shipping Co. Ltd.—20, British India Street, Calcutta 1.
- Jay Engineering Works Ltd.—183A, Prince Anvar Shah Road, Calcutta 31.
- Jayems Engineering Co.—22, Brabourne Road, Calcutta 1.
  Jaynarain Gobindparsad Pvt. Ltd.—1, Jankidas Lane,
  Calcutta 7.
- Jayshree Chemicals Ltd.—14, Netaji Subhas Road, Calcutta 1.
- Jayshree Tea & Industries Ltd.—India Exchange, Calcutta 1.
- Jayshree Textiles & Industries Ltd.—P/46A, Radha Bazar Lane, Calcutta 1.
- J. B. Advani & Co. Pvt. Ltd.—27, Netaji Subhas Road, Calcutta 1.
- J. Boseck & Co. Pvt. Ltd.—16/5, Chowringhee Road, Calcutta 13.
- J. J. H. Industries Pvt. Ltd.—9, Transport Depot Road, Calcutta 27.
- J. K. Business Machines Ltd.-2, Mangoe Lane, Calcutta 1.
- J. K. Dey & Sonse-13, Old China Bazar Street, Calcutta 1.
- J. K. Industries Pvt. Ltd.—7, Council House Street, Calcutta 1.
- Jatia Industries Pvt. Ltd.—18, N. Subhas Road, Calcutta 1. Jena & Co.—25, Netaji Subhas Road, Calcutta 1.
- Jeetmall Jaichandlal.—109, Netaji Subhas Road, Calcutta 1.
- Jeewanlal (1929) Ltd.—23, Brabourne Road, Calcutta 1.
  Jenson & Nicholson (India) Ltd.—225, L. C. Road, Calcutta 20.
- Jesraj Jiwanram Pvt. Ltd.—20, British India Street, Calcutta 1.
- Jessop & Co. Ltd.—63, Netaji Subhas Road, Calcutta 1. Jessore Comb Industries Co.—117, Baithakhanna Road, Calcutta 9.
- John Fowler India Ltd.—136-A, Rash Behari Avenue, Calcutta 29.

0

- John Herbert & Co. Pvt. Ltd.—Canning House, 137, Canning Street, Calcutta 1.
- John Paterson & Co. (India) Ltd.—96, Garden Reach Road, Calcutta 23.
- John Thompson (India) Pvt. Ltd.-4, Fairlie Place, Calcutta 1.
- Johnston Pumps India Ltd.—2, Fairlie Place, Calcutta 1.
- Jones J. D. & Co. Ltd.—8, Netaji Subhas Road, Calcutta 1.
  Jost's Engineering Co. Ltd.—19, British Indian Street,
  Calcutta 1.
- Jugantar Ltd.—14, Ananda Chatterjee Lane, 72, Baghbazar Street, Calcutta 3.
- Jyoti Calor-Emag Ltd.—15, Prafulla Sarkar Street, Calcutta 13.
- Kajaria Bros. Pvt. Ltd.—9, Jagmohan Mullick Lane, Barabazar, Calcutta 7.
- Kalinga Otto Pvt. Ltd.—10, Middleton Row, Calcutta 16. Kalinga Tubes Ltd.—33, Chittaranjan Avenue, Calcutta 12.
- Kamala Sheet Metal Industries. Pvt. Ltd.—98-99, Beliaghata Main Road, Calcutta 10.
- Kamalalaya (Export) Pvt. Ltd.—14 & 15, Ballygunge Station Road, Calcutta 19.
- Kamalalaya Stores Pvt. Ltd.—156-A, Dharamtala Street, Calcutta 13.
- Kanji Panachand Pvt. Ltd.—33, Armenian Street, Calcutta 1.
- Kanji Shavji Parekh Pvt. Ltd.—55, Canning Street, Calcutta 1.
- Kanoi Group of Companies—20, R. N. Mukherjee Road, Calcutta 1.
- Kanoi (India) Pvt. Ltd.—3, Transport Depot Road, Calcutta 27.
- Kanoria & Co. Ltd.—Bombay Mutual Buildings, 9, Brabourne Road, Calcutta 1.
- Kanubhai Engineers Pvt. Ltd.—3, Mangoe Lane, Calcutta 1.
- Karam Chand Thapar & Sons Ltd.—25, Brabourne Road, Calcutta 1.
- Kashiram Banaresilal Pvt. Ltd.—83, Old China Bazar Street, Calcutta 1.
- Kaybee & Co.—60/1, Chowringhee Road, Calcutta 20.
  Kaycee Industries Ltd.—2, Woodburn Court, 10, Elgin Road, Calcutta 20.
- Kedarnath Parsotamdas & Co. Pvt. Ltd.—37, Netaji Subhas Road, Calcutta 1.
- Kesheram Rayon.—4A, Council House Street, Calcutta 1. Kessel Power Engineers Pvt. Ltd.—15, Ganesh Chunder Avenue, Calcutta 1.
- Kettlewell Bullen & Co. Ltd.—21, Strand Road, Calcutta 1. Keyal Brothers Ltd.—244, Upper Chitpur Road, Calcutta 3.
- Keymer Bagshawe & Co. (India) Pvt. Ltd.—22, Strand Road, Calcutta 1.
- Khaitan Corpn. Pvt. Ltd.— 96, Garden Reach Road, Calcutta 23.
- Khemka & Co. (Agencies) Pvt. Ltd.—31/32, India Exchange Place, Calcutta 1.
- Khandelwal Bros. Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1. Kian Gwan Co.—Calcutta Pvt. Ltd.—4, Robert Road,
- Dum Dum, Calcutta 28.

  Kilachand Devchand & Co. Pvt. Ltd.—2, Brabourne
  - Road, Calcutta 1.
- Kilburn & Co. Ltd.—2, Fairlie Place, Calcutta 1.

Killick Nixon & Co. Ltd.—D-2, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Kinlab Pvt. Ltd.-25, Marquis Street, Calcutta 16.

K. K. Roy Pvt. Ltd.—55, Gariahat Road, Calcutta 19.

K. K. Shah & Co. Pvt. Ltd.—212, Upper Chitpore Road, Calcutta 3.

K. L. Dutt & Co. Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

K. L. M. Royal Dutch Airlines Ltd.—1, Middleton Street, Calcutta 16.

Kodak Ltd.-17, Park Street, Calcutta 16.

Kores (India) Ltd.—1 & 2, Brabourne Road, Calcutta 1. Kothari M. D. & Co. Pvt. Ltd.—15, India Exchange Place, Calcutta 1.

Krabs (India) Pvt. Ltd.—1, Kushthia Road, Calcutta 39. Krebs & C.I.E. India Pvt. Ltd.—3-A, Auckland Place, Calcutta 17.

Krishna Chandra Dutta (Spice) Pvt. Ltd.—235, Maharshi Devendra Road, Calcutta 7.

Krishna Industries.—220, Naskarpara, Ghusuri, Howrah. Krishnalal Thirani & Co. Ltd.—3, Brabourne Road, Calcutta 1.

Kuljian Corporation (India) Pvt. Ltd.—24-B, Park Street, Calcutta 16.

Kumar Bros. & Co., Ltd.—14, Raja Woodmunt Street, Calcutta 1.

Kundia Industrial Corporation.—23, Canning Street, Calcutta 1.

Kusum Engineering Co., Ltd.—25, Swallow Lane, Cal-

Kusum Products Ltd.—9, Brabourne Road, Calcutta 1. Laha Engineering Works Pvt. Ltd.—52, College Street, Calcutta 12.



## LARSEN & TOUBRO LTD.

Manufacturers' representatives/manufacturers of: equipment for drilling and mining, plant and equipment for dairy, meat processing and cold storage, pneumatic grain dischargers and garbage compost milling plants, equipment for sugar, fertiliser, chemical, pharmaceutical, petro-chemical and other process industries, plant and equipment for cement, pulp and paper, and iron and steel industries; electrical switchgear and other electrical equipment, petrol pumps, pin disc grinders, taper pluga and gale and check valves, instruments and other appliances and equipment; aluminium capsules, crown corks and rolled-on pilfer proof caps (Further details under Bombay Section).

Regd. and Head Office: L & T House, Ballard Estate, Bombay-I.

Calcutta Office: Kanak Building, 41, Chowringhee Road, Calcutta 16. Phone: 442331.

Madras Office: 4-5, Club House Road, Mount Road, Madras 2. Phone: 82141.

New Delhi Office: Express Building, Bahadur Shah Zafar Marg, New Delhi I. Phone: 278061. Laha G. C. Pvt. Ltd.—1, Dharamtolla Street, Calcutta 13.
Lakshmi Narayan Sen & Sons. Ltd.—62, Chowringhee Road, Calcutta 20.

Lalchand Ray & Co. Pvt. Ltd.—7/1, Grant Lane, Calcutta 12.

Landale & Morgan Pvt. Ltd.—5, Fairlie Place, Calcutta 1. Law & Law Pvt. Ltd.—6, Old Post Office Street, Calcutta 1. Lawrence & Mayo (India) Pvt. Ltd.—11, Govt. Place East, Calcutta 1.

L. C. Sett & Co. Pvt. Ltd.—43, Dharamtolla Street, Calcutta 13.

Leather Chemicals & Industries Ltd.- 9, Muraripukur Road, Calcutta 4.

Lewis & Tylor Pvt. Ltd.— 2, Brabourne Road, Calcutta 1. Lionel Edwards Ltd.— 21, Old Court House Street, Calcutta.

Lionel Martin & Co. Pvt. Ltd.—23-A, Netaji Subhas Road, Calcutta 1.

Lipton Ltd. - 9, Weston Street, Calcutta 13.

Lloyds Mercantile Corporation.—51, Ezra Street, Calcutta 1.

L. N. Poddar & Co., Ltd.—17, Vivekananda Road, Calcutta 7.

Lovelock & Lewes.-4, Lyons Range, Calcutta 1.

Lucas Indian Service Pvt. Ltd.—46, R. A. Kidwai Road, Calcutta 16.

Lux Electricals Pvt. Ltd.—35, Chittaranjan Avenue, Calcutta 12.

Lynx Machinery Ltd.—23A, Netaji Subhas Road, Calcutta 1.

M. A. Eblagh & Son Pvt. Ltd.—45, Free School Street, Calcutta 16.

Macfarlane & Co., Ltd.—18, Radhanath Choudhury Road, Calcutta 15.

Machine & Mill Stores Corpn. Pvt. Ltd.—76/19, Banaras Road, Howrah.

Machinery Manufacturers Corporation Ltd.—Hall & Anderson Building, 31, Chowringhee Road, Calcutta 16.

Machino Techno (Sales) Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1.

Mackenzie Lyall & Co.-5, Mission Row, Calcutta 1.

Mackinnon Mackenzie & Co., Pvt. Ltd.—16, Strand Road, Calcutta 1.

Mackintosh Burn Pvt. Ltd.—D-2, Gillander House, Netaji Subhas Road, Calcutta 1.

Macmillan & Co., Ltd.—294, Bow Bazar Street, Calcutta 12.

MacNeill & Barry Ltd .-- 2, Fairlie Place, Calcutta 1.

Mafatlal Gagalbhai & Sons.—18, Netaji Subhas Road, Calcutta 1.

Mahabir Commercial Co. Ltd.—15, India Exchange Place, Calcutta 1.

Mahalakshmi Fibres & Industries Ltd.—5, Synagogue Street, Calcutta 1.

Mahindra & Mahindra Ltd.—Hall & Anderson Bldg., 31, Chowringhee Road, Calcutta 16.

Mair, A. M. & Co., Pvt. Ltd.—14, India Exchange Place, Calcutta 1.

Maitra Brothers & Co. Pvt. Ltd.—Sulekha Park, Calcutta 32.

Majula Pvt. Ltd.—6/1, Lindsay Street, Calcutta 16.
Mansfield Oil & Gas Co. Ltd.—16, Radhanath Choudhury
Road, Calcutta 15.

Manton & Co., Ltd.—13, Old Court House Street, Calcutta 1.

Marconi Electric Corpn. Pvt. Ltd.—117, Keshab Sen Street, Calcutta 9.

Marshall Sons & Co. (India) Ltd.—57/D, B. T. Road, Calcutta 2.

Martin & Harris Ltd.—Mercantile Bldgs., Lall Bazar, Calcutta 1.

Martin Burn Ltd.-12, Mission Row Calcutta 1.

Matadin Khaitan & Co., Ltd.—27, Vivekananda Road, Calcutta 7.

Mather & Platt Ltd. - 7, Hare Street, Calcutta 1.

Maurice George & Son Ltd.—6, Mangoe Lane, Calcutta 1. May & Baker India Pvt. Ltd.—7, Old Court House Street, Calcutta1.

Maya Engineering Works Pvt. Ltd.—200/A, Syamaprasad Mukherjee Road, Calcutta 26.

McGregor & Balfour Ltd.—18, Netaji Subhas Road, Calcutta 1.

M. C. Mowjee & Co.-46, Ezra Street, Calcutta 1.

McKenzie G. & Co., Pvt. Ltd.—24-B, Park Street, Calcutta 16.

McLeod & Co., Ltd.—McLeod House, 3, Netaji Subhas Road, Calcutta 1.

Meameco Ltd.-4, Clive Row, Calcutta 1.

Merchants' Syndicate Ltd.—4, Lyons Range, Calcutta 1. Mercury Travels (India) Pvt. Ltd.—Grand Hotel, Calcutta 13.

Metal Box Co. of India Ltd.—Barlow House, 59C, Chowringhee Road, Calcutta 20.

Metal Distributors Pvt. Ltd.— 38, Strand Road, Calcutta 1. Metalcraft (India) Ltd.— 9, G. R. Road, Calcutta 23.

Metal Products & Engg., Co.— Jalan House, 124, Mahatma Gandhi Road, Calcutta 7.

Metal Wood Industries Pvt. Ltd.—193/I, Basanta Lal Road, Calcutta 41.

Metflow Corporation Pvt. Ltd.-65/2, Hindustan Park, Calcutta 29.

Metroark Pvt. Ltd.— 12, Dharamtolla Street, Calcutta 13. Mettur Industries Ltd.— 8, Netaji Subhas Road, Calcutta 1. Mida & Co., Pvt. Ltd.—33, Canning Street, Calcutta 1.

Miller, D. L. & Co. Pvt. Ltd.—3, Netaji Subhas Road, Calcutta I.

Miller & Co., (Cal.) Ltd.—24, Netaji Subhas Road, Calcutta 1.

Mine Safety Appliances Ltd.—240E, Acharya Jagadish Bose Road, Calcutta 20.

Minimax Ltd.—Mercantile Bldgs., Lall Bazar Street, Calcutta 1.

Miscellaneous Engineering Stores Pvt. Ltd.—71-A, Netaji Subhas Road, Calcutta 1.

M. N. Dastur & Co. Pvt. Ltd.—P-17, Mission Row Extension, Calcutta 13.

Model Manufacturing Co. Pvt. Ltd.—40, Strand Road, Calcutta 1.

Modern Trading Cb.—P-22, Mission Row Extension, Calcutta 13.

Mohameddin (India) Pvt. Ltd.—29, Colootolla Street, Calcutta 1.

Molins of India Ltd.—10, Middleton Row, Calcutta 16. Monotype Corpn. Ltd.—12, Government Place East,

Calcutta 1.

Morgan Milton Pvt. Ltd.—43, Park Mansions, Park Street,
Calcutta 16.

Morgan Walker & Co. Pvt. Ltd.—2, Clive Ghat Street, Calcutta 1. Morison Son & Jones (India) Pvt. Ltd.—J. L., United India Bldg., 22, Chittaranjan Avenue, Calcutta 13.

Morrison & Cottle Pvt. Ltd.—Chowringhee Mansion, 30-G, Chowringhee, Calcutta 16.

Mothihari Enterprises Ltd.—178, Harrison Road, Calcutta 7.

Moti Ram Agarwal & Co. Ltd.—137, Canning Street, Calcutta 1.

Motor & Machinery Mfrs. Ltd.—3/1, Krishna Sen Behari Street, Calcutta 7.

Motor Industries Co. Ltd.—91-A, Park Street, Calcutta 16. Motwane Pvt. Ltd.—25, Chowringhee, Road, Calcutta 13. Mugneeram Bangur & Co. Pvt. Ltd.—8, Lyons Range,

Mukerjee A. N. Pvt. Ltd.—10, Shamlall Street, Shambazar, Calcutta 4.

Mukherji A. R. & Co. Ltd.—P-74, Bentinck Street, Calcutta 1.

Murarka (Overseas) Pvt. Ltd.—157, J. L. Bazaz Street, Calcutta 7.

N. K. Gossain & Co. Pvt. Ltd.—13/7, Ariff Road, Calcutta 4.

N. N. Ojha & Co. Pvt. Ltd.—F 3, Clive Buildings, 8, Netaji Subhas Road, Calcutta 1.

Nalinakshya Tah & Co. Pvt. Ltd.—20, Maharshi Debendra Road, Calcutta 7.

Nandy Dey Pvt. Ltd.—67-49, Strand Road, Calcutta 7. Natabar Paul & Co. Pvt. Ltd.—Natabar Bhaban, 19, Maharshi Debendra Road, Calcutta 7.

National Alloy & Metal Works (Pvt.) Ltd.—17, Navinchandra Das Lane, Calcutta 50.

National Cash Register Co.—Stephen House, 4, Dalhousie Square East, Calcutta 1.

National Industrial Impex Corpn.—35, Stephen House, 4, Dalhousie Square East, Calcutta 1.

National Insulated Cable Co., of India Ltd.—Nicco House, 1/2, Hare Street, Calcutta 1.

National Iron & Steel Co. Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta 1.

National Machinery Stores.—138, Canning Street,

Calcutta 1.
National Moulding Co. Ltd.—26, Upper Chitpur Road,

Calcutta 7.

National Pigments Mig. Syndicate.—167, C. R. Avenue,
Calcutta 7.

National Rolling & Steel Ropes Ltd.—Nico House, 1 & 2, Hare Street, Calcutta 1.

National Tobacco Co. of India Ltd.—Norton Bldgs., 1-2, Old Court House Corner, Calcutta 1.

National Trading Co.—Moon House, P-40, Mission Row Extension, Calcutta 13.

National Trading Corpn.—23, Strand Road, Calcutta 1. Nestle's Products (India) Ltd.—7, Hare Street, Calcutta 1. New India Mercantile Co. Pvt. Ltd.—15, India Exchange Place, Calcutta 1.

Nigam Bros.—150, Dharamtolla Street, Calcutta 13.

Norinco Ltd.—14, Netaji Subhas Road, Calcutta 1. North Eastern Agencies Pvt. Ltd.—Faraday House,

P-17, Mission Row Extn., Calcutta 13.

Norton J. B. & Sons Ltd.—110, Stephen House, Calcutta 1.

Norton J. B. & Sons Ltd.—110, Stephen House, Calcutta 1. Nundy Bros. Pvt. Ltd.—3-3, Maharshi Debendra Road, Calcutta 7.

Nundy Pvt. & Sons.—35-6, Ratan Babu Road, Calcutta 2. Octavius Steel Co. Ltd.—14, Old Court House Street, Calcutta 1.

- Odhavji Devidas & Co. Pvt. Ltd.—9, Armenian Street, Calcutta 1.
- Ofu-Lynx Ltd.—P43 and 44 Block 'H', New Alipore, Calcutta 33.
- Orient Engineering & Commercial Co. Ltd.—25, Brabourne Road, Calcutta 1.
- Orient Express Co. Pvt. Ltd.—National Tobacco Building, 1 & 2, Old Court House, Corner, Calcutta 1.
- Orient General Industries Ltd.—6, Ghore Bibi Lane, Calcutta 54.
- Orient Longmans Ltd.—17, Chittaranjan Avenue, Calcutta 13.
- Oriental Import Agency Pvt. Ltd.—Mercantile Bldgs., 10-1D, Lall Bazar, Calcutta 1.
- Oriental Machinery (1919) Pvt. Ltd.—P-12, Mission Row Extension, Calcutta 1,
- Oriental Metal Industries, Pvt. Ltd.—77, Bowbazar Street, Calcutta 13.
- Oriental Steel & Wire Ind. Pvt. Ltd.—2, Brabourne Road, Calcutta 1.
- Oriental Trading Co. Pvt. Ltd.—71-A, Netaji Subhas Road, Calcutta 1.
- Orr, Dignam & Co.—29, Netaji Subhas Road, Calcutta 1. Otis Elevator Co. (India) Ltd.—1, Middleton Street, Calcutta 16.
- Overseas (India) Pvt. Ltd.—4, Clive Ghat Road, Calcutta 1. Paharpur Timbers Pvt. Ltd.—1-B, Judges Court Road, Calcutta 27.
- Pan American World Airways Inc.—42 Chowringhee Road, Calcutta 16.
- Parry & Co. Ltd.—32, Chowringhee, Calcutta 16.
- Pashupati Das & Sons Pvt. Ltd.—37/A, Surendra Nath Banerjee Road, Calcutta 14.
- Patnaik & Co. Pvt. Ltd.—35, Chittaranjan Avenue, Calcutta 12.
- Patel India Pvt. Ltd.—3, 4 & 5, Lindsay Street, Calcutta 16.
- Paterson Engineering Co. (India) Pvt. Ltd.—28, Chittaranjan Avenue, Calcutta 12.
- Patrika Syndicate Pvt. Ltd.—P-1, C.I.T. Road, Calcutta 15.
- Paul Biswas & Co. Pvt. Ltd.—55/2, Canning Street, Calcutta 1.
- Paul K. C. & Co. Pvt. Ltd.—258/16, APC Road, Calcutta 6.
- Paul's Filing System.—21/1, Canal West Road, Calcutta 6.
   P. C. Chanda & Co. Ltd.—P-2, Mission Row Extension, Calcutta 1.
- P. Chaterji & Co. Pvt. Ltd.—55, Ezra Street, Calcutta 1. People's Enterprises Pvt. Ltd.—3, New Tangra, Calcutta 46.
- Pest Control (India) Pvt. Ltd.—10, Chowringhee Road, Calcutta 13.
- Peters & Smith (India) Ltd.—17, Chowringhee, Calcutta 13.
- Phelps & Co. Ltd.—21, Old Court House Street, Calcutta 1.
  Philips & Roy Pvt. Ltd.—38/2, Wellington Street, Calcutta 13.
- Philips Carbon Black Ltd.—31, Netaji Subhas Road, Calcutta 1.
- Philips India Ltd.—Philips House, 7, Justice Chandra Madhab Road, Calcutta 20.
- Phipson & Co. Ltd.—6, Old Court House Street, Calcutta 1. Phoenix Industrial Co.—26, Chandi Tala Main Road, Calcutta 5.

- Phosphate Co. Ltd.—14, Netaji Subhas Road, Calcutta 1. Pioneer Consolidated Co. of India Ltd.—2, Clive Row, Calcutta I.
- Pioneer Engineering Co.—158, Dharamtalla Street, Calcutta 13.
- Pioneer Equipment Co. Pvt. Ltd.—3, Esplanade East, Calcutta 1.
- Pioneer Industrial Syndicate.—67, Ezra Street, Calcutta 1. Place, Siddons & Gough (Pvt.) Ltd.—6, Lyons Range, Calcutta 1.
- Plasto-Iron (India) Ltd.—Patipukur, Dum Dum, Calcutta 28.
- Polson Ltd.—6-A, Sudder Street, Calcutta 16.
- Port Engineering Works Ltd.—8, Clive Row, Calcutta 1. Power and Machinery Construction Co. Pvt. Ltd.—10/1/D, Lall Bazar Street, Calcutta 1.
- Power Farming Ltd.—165, Lower Chipur Road, Calcutta 1.

  Power Transmission Equipment Corpn.—37, Strand Road, Calcutta 1.
- Precision Products of India, 10/A, Creek Lane, Calcutta 14. Premier Dyes & Chemicals Pvt. Ltd.—9A, Zakaria Street, Calcutta 1.
- Premier Stores Supplying Co. Ltd.—8, Royal Exchange Place, Calcutta I.
- Price, Waterhouse Peat & Co.—B-4, Gillander House, Netaji Subhas Road, Calcutta 1.
- Print & Paper (Sales) Pvt. Ltd.—4/7A, Waterloo Street, Calcutta I.
- Printers House Ltd.—32-A, Chittaranjan Avenue, Calcutta 13.
- Process Control Equipment Co.—55, Joy Mitter Street, Calcutta 5.
- Produce Exchange Corpn. Ltd.—Thapar House, 25, Brabourne Road, Calcutta 1.
- Protos Engineering Co. Pvt. Ltd.—P8, Mission Row Extension, Calcutta 1.
- R. Akojee Jadwet & Co. Pvt. Ltd.—67, Canning Street, Calcutta 1.
- Racek, F. & Co. (Pvt.) Ltd.—57, Radha Bazar Street, Calcutta 1.
- R. C. Engineering Works.—96/98/1, Narasingh Dutta Road, Howrah.
- R. K. Millen & Co. (India) Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.
- R. L. Modi & Sons Pvt. Ltd.—2, Doyehatta Street, Calcutta 7.
- R. McDill & Co. Pvt. Ltd.—34B, Ratu Sarkar Lane, Calcutta 7.
- R. V. Mehta & Sons.—14, Bentinck Street, Calcutta 1. Radiant Electric Kitchen Works.—167/1, Bidhan Sarani,
- Calcutta 6.
  Rajendra Nath Mullick & Co. Ltd.—20, Maharshi De-
- bendra Road, Calcutta 7.

  Rajgarhia Brothers Pvt. Ltd.—13, Harrington Street, Calcutta 16.
- Rallis India Ltd.—Ralli House, 16, Hare Street, Calcutta 1. Ramalal Mookerjee & Son Pvt. Ltd.—37, Strand Road, Calcutta 1.
- Rash Behary Sen (1897) Pvt. Ltd.—5, Bankim Chatterjee Street, Calcutta 12.
- Ratnakar Shipping Co. Ltd.—16, Strand Road, Calcutta 1. Raunaq & Co. Pvt. Ltd.—17, Brabourne Road, Calcutta 1.
- Reckitt & Colman of India Ltd.—41, Chowringhee Road, Calcutta 16.
- Reliable Water Supply Service of India Pvt. Ltd.—10, BRBB Road, Calcutta 1.

Reliance Products Ltd.—15, Chittaranjan Avenue, Calcutta 13.

Reliance Trading Corpn.—23, C. R. Avenue, Calcutta 13. Relief Roller Casting Co.—4, Girish Chandra Bose Road, Calcutta 14.

Remfry & Son.—40/44, Stephen House, Dalhousie Square, Calcutta 1.

Remington Rand of India Ltd.—Remington House, 3, Council House Street, Calcutta 1.

Republic Traders Corpn.—P-12, Mission Row Extension, Calcutta 1.

Reyrolle, A. & Co. Ltd.—12, Mission Row, Calcutta 1.

Robert Hüdson (India) Ltd.—12, Mission Row, Calcutta 1.

Roberts McLean & Co. Ltd.—2, Brabourne Road, Calcutta 1.

R. N. Jhunjhunwala & Co. Pvt. Ltd.—9, Ezra Street, Calcutta 1.

Robsan & Co. Ltd.—Windsor House, P14, Mission Row Extn., Calcutta 1.

Rodda, R. B. & Co. Ltd.—2, Wellesley Place, Calcutta 1. Rohtas Industries Ltd.—11, Clive Row, Calcutta 1.

Rolls Print & Co. Pvt. Ltd.— 6, Chowringhee Road, Calcutta 13.

Roneo Vickers Ltd.—13, Mission Row Extension, Calcutta 1.

Rostron & Co. Pvt. Ltd.—10, Govt. Place, East, Calcutta 1. R. Sen & Co. (Agents) Pvt. Ltd.—10/1, Elgin Road, Calcutta 20.

R. Shantilal & Co. Pvt. Ltd.—87, G. T. Road, Kotrung, Calcutta 7.

Rudra & Co. Pvt. Ltd.—32, Madan Mitter Lane, Calcutta 6. Rungta Sons Pvt. Ltd.—P-16, Kalakar Street, Calcutta 7. S. A. E. (India) Ltd.—2/B, Victoria Terrace, Calcutta 17.

S. A. Torab & Co.—55, BRBB Road, Calcutta 1.

S. B. Dandekar & Co.—P-36, India Exchange Place, Calcutta 1.

Saha, B. K. & Bros. Pvt. Ltd.—5, Pollock Street, Calcutta 1.

Saha C. C. Ltd.-45, Moti Sil Street, Calcutta 13.

Sahaia Industries.—BIF 76B, New Alipore, Calcutta 53. Sahu Jain Ltd.—11, Clive Row, Calcutta 1.

Sakow Industries Pvt. Ltd.-10, Middleton Row, Calcutta 16.

Sales & Industries Pvt. Ltd.—P. 37, CIT Road Scheme, Calcutta 14.

Samar Singh Jahaswal Pvt. Ltd.—27-B, Camac Street, Calcutta 16.

Samuel Oxborn (India) Pvt. Ltd.—1, Acharya Jagdish Chandra Basu Road, Calcutta 20.

Sandoz (India) Ltd.—3/A, Shakespeare Sarani, Calcutta 16.

Sandvik Asia Ltd.-83-B, Park Street, Calcutta 16.

Sankey Wheels Ltd.—"Jeevan Deep," 1, Middleton Street, Calcutta 16.

Saran Trading Co. Ltd.—15, India Exchange Place, Calcutta 1.

Sarkar, N. R. & Co. Pvt. Ltd.—Hindustan Bldgs., 4, Chittaranjan Avenue, Calcutta 13.

Sarkar, S. C. & Sons Ltd.—1-1-C, College Sqr., Calcutta 12.
 Sarmas (India) Pvt. Ltd.—9, Chowringhee Road, Calcutta 13.

Scandinavian Airlines System.—18, Park Street, Calcutta 16.

Schreeder Scovill Duncan Ltd.—31, Netaji Subhas Road, Calcutta 1. Scindia Steam Navigation Co. Ltd.—33, Netaji Subhas Road, Calcutta 1.

Scott & Pickstock Ltd.—B, Fairlie Place, Calcutta 1. Scott & Saxby Ltd.—Chartered Bank Buildings, Calcutta 1.

S. C. Sons Pvt. Ltd.—47A, Shakespeare Sarani, Calcutta 16.

Sen & Pandit P. Ltd.—Mercantile Bldgs., Lal Bazar Street, Calcutta 1.

Sen Raleigh Ltd.—1, Middleton Street, Calcutta 16. Sen Ray & Co. Ltd.—15, College Square, Calcutta 12.

Sen & Sen Pvt. Ltd.—10-A, Ram Pal Lane, Calcutta 5.

Sepulchre Bros. (India) Ltd.—20, R. N. Mukherjee Road, Calcutta 1.

Sett, H. L. & Sons Pvt. Ltd.—21, Jadu Pandit Road, Calcutta 6.

S. E. A. Corpn. India Pvt. Ltd.—22, Swallow Lane, Calcutta 1.

S. G. R. Industries Pvt. Ltd.—10, The Mall, Dum Dum, Calcutta 28.

Shahani, M. G. & Co. (Cal.), Pvt. Ltd.—3, Chittaranjan Avenue, Calcutta 13.

Shalimar Industries Pvt. Ltd.—1, Swarnamoyee Road, Howrah 3.

Shalimar Rope Works Ltd.—14, Netaji Subhas Road, Calcutta 1.

Shalimar Tar Products (1935) Ltd.—6, Lyons Range, Calcutta 1.

Shaw Wallace & Co. Ltd.—Wallace House, 4/5, Bank-shall Street, Calcutta 1.

Shethia S. D. & Co. Pvt. Ltd.—F/2, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Shilpa-Peeth Ltd.—111-1, Gopal Lal Thakur Road, Alambazar, Calcutta 35.

Shimwell & Bro. (Calcutta) Ltd.—Chartered Bank Buildings, Calcutta 1.

Ship Repairers (Pvt.) Ltd.—P9, Taratalla Road, Paharpur, Calcutta 24.

Shree Hanuman Industrial Corpn.—15, India Exchange Place, Calcutta 1.

Shree Services & Trading Co. Ltd.—15, India Exchange Place, Calcutta 1.

Shri Niwas Co. Pvt. Ltd.—13, Jatindra Road, Calcutta 6. Siemens India Ltd.—6, Little Russel Street, Calcutta 16. Sikri & Co., Pvt. Ltd.—55, BRBB Road, Calcutta 1.

Simon-Carves (India) Ltd.—Simon House, Transport Depot Road, Calcutta 27.

Simplex Concrete Piles (India) Pvt. Ltd.—103-3, Diamond Harbour Road, Calcutta 38.

Simpson & Munro (India) Ltd.—4, Lyons Range, Calcutta 1.

Sinclair Murray & Co., Pvt. Ltd.—14, India Exchange Place, Calcutta 1.

Singer Sewing Machine Co.—29, Waterloo Street, Calcutta 1.

Sinha, M. L. & Co., Pvt Ltd.—50, Ezra Street, Calcutta 1.
Sirkar S. & Co., Ltd.—125, Bowbazar Street, Calcutta 12.
Sizing & Finishing Materials Co.—60, Dharamtolla Street, Calcutta 13.

S. K. Chakravarti Ltd.—1/1B, Mission Row Extn., Calcutta 1.

S. K. F. Ball-Bearing Co., Pvt. Ltd.—11, Rajendranath Mukherjee Road, Calcutta 1.

S. K. Mitra Pvt. Ltd.—10, Portuguese Church Street, Calcutta 1. S. Lal & Co. Pvt. Ltd.—15, Chittaranjan Avenue, Calcutta 12.

M. Ali Pvt. Ltd.—40B, Chittaranjan Avenue, Calcutta 13.

Smith B. H. & Co., Pvt. Ltd.—46, Dharamtalla Street, Calcutta 13.

Smith Stanistreet & Co., Ltd.—18, Convent Road, Calcutta 14.

Snow White Food Product Co. Ltd.—4, Fairlie Place, Calcutta 1.

Somani & Co. Pvt. Ltd.—21A, BRBB Road, Calcutta 1. Sone Valley Portland Cement Co. Ltd.—Clive Row, Calcutta 1.

Soor, Neogi Coomar & Co. Pvt. Ltd.—39, College Street, Calcutta 12.

Soorajmull Nagarmull.—8, Dalhousie Square East, Calcutta 1.

Special Engineering Services Pvt. Ltd.—16, Cossipore Road, Calcutta 1.

Spence Ltd.—P-38, Mission Row Extension, Calcutta 1.
Spencer & Co., Ltd.—70, Diamond Harbour Road, Calcutta 23.

Stadmed Pvt. Ltd.—84, Chowringhee Road, Calcutta 20. Standard Engineering Co. Ltd.—62, Bow Bazar Street, Calcutta 1.

Standard Steels (India) Pvt. Ltd.—P-31, Mission Row Extn., Calcutta 1.

Statesman Ltd.—Statesman House, 4, Chowringhee Square, Calcutta 1.

Steam & Mining Equipment (India) Ltd.—207B, Park Street, Calcutta 17.

Steel & Allied Products Ltd.—2/1, Hussain Shah Road, Calcutta 23.

Steel Box Pvt. Ltd.—14-2, Old Chinabazar-Street, Calcutta 1.

Steel Equipment & Construction Ltd.—22, Grand Trunk Road, Lillocah, Howrah.

Steelsworth Pvt. Ltd.—17, Ganesh Ch. Avenue, Calcutta 13.

Steelverse & Co. (1960) Pvt. Ltd.—5, Commercial Builddings, Calcutta 1.

Stephens & Co., Ltd.—23, Chowringhee, Calcutta 13.

Sterling India Co. Pvt. Ltd.—68/B, Dilkusha Street, Calcutta 17.

Stewarts & Lloyds of India Pvt. Ltd.—14, Chowringhee Road, Calcutta 16.

Stone J. & Co. (India) Pvt. Ltd.—16, Taratolla Road, Calcutta 53.

Subol Dutt & Sons Pvt. Ltd.—Subol Dutt Bldgs., 13, Brabourne Road, Calcutta 1.

Sudhir Chandra Das & Sons (India) Pvt. Ltd.—57, Clive Street, Calcutta 7.

Sudhir Chatterjee & Co. Pvt. Ltd.—10, Ganesh Chandra Avenue, Calcutta 13.

Sudsons Pvt. Ltd.—3, Esplanade East, Calcutta 1.

Sulekha Works Ltd.—Jadavpur, Calcutta 32.

Sun Investment & Trading Co. Ltd.—14, Netaji Subhas Road, Calcutta 1.

Supercrafts Pvt. Ltd.—163, Kasba Road, Calcutta 31. Superintendence Co. of India Pvt. Ltd.—31, 32, 33, CIT Road, Entally, Calcutta 14.

Sur Enamel & Stamping Works Pvt. Ltd. — 24, Middle Road, Calcutta 14.

Sur Industries Pvt. Ltd.—163, Acharya J. B. Road, Calcutta 14.

Surajmull Chhotaylal (Pvt.) Ltd.—57, Burtolla Street, Calcutta 7.

Surensons Pvt. Ltd.—3A, Raja Kali Kissen Lane, Calcutta 5.

Sutton & Sons Ltd.—13-D, Russell Street, Calcutta 16.

Swaika Group of Industries.—P.N.B. House, 18-B, Brabourne Road, Calcutta 1.

Swatantra Bharat Trading Co. Ltd.—182/186A, Lake Gardens, Calcutta 45.

Symond Distributors Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

Synthetic Moulders Ltd.—42, Biren Roy Road West, Calcutta 23.

T. I. & M. Sales Ltd.-6, Church Lane, Calcutta 1.

Talukdar Law & Co. Pvt. Ltd.—Hindusthan Buildings, 4, Chittaranjan Avenue, Calcutta 13.

Talukdar S. & Co. Ltd.—5, Commercial Bldgs., Netaji Subhas Road, Calcutta 1.

Tantia Bros. Pvt. Ltd.—Old Court House Corner, Calcutta 1.

Tata Chemicals Ltd.—Mercantile Bldgs., 10, Lall Bazar, Calcutta.

Tata Engineering & Locomotive Co. Ltd. — 30, C. R. Avenue, Calcutta 12.

Tata Exports Ltd.—31, Chowringhee Road, Calcutta 16.
Tata Fison Industries Ltd.—10, Harrington Street, Calcutta 16.

Tata Iron & Steel Co. Ltd.—23-B, Netaji Subhas Road, Calcutta 1.

Tata Oil Mills Co. Ltd.—26, R. N. Mukherjee Road, Calcutta 1.

Tatanagar Foundry Co. Ltd.—51, Stephen House, 4, Dalhousie Square, Calcutta 1.

Tea Brokers Pvt. Ltd.—29, Ganesh Ch. Avenue, Calcutta 13.

Tecalemit (Hind) Ltd.—8/12, Chittaranjan Avenue, Calcutta 13.

Technical (India) Pvt. Ltd.—62-1, Joy Narain Babu & Ananda Dutta Lane, Howrah.

Technico Enterprises Pvt. Ltd.—P-22, Swallow Lane, Calcutta 1.

Textile Machinery Corpn. Ltd.—Belgharia, Calcutta 56.
Thacker Spink & Co.—(1933) Pvt. Ltd.—3, Esplanade
East, Calcutta 1.

Thacker's Press & Directories Ltd.—6, Bentinck Street, Calcutta 1.

Thisa (I) Pvt. Ltd.—1 & 3, Brabourne Road, Calcutta 1. Thomas J. & Co., Pvt. Ltd.—11, R. N. Mukherjee Road, —Calcutta 1.

Thomas Mouget & Co. (India) Ltd.—135, Canning Street, Calcutta 1.

Tideman & Co. (India) Pvt. Ltd.—64/65, Stephen House, 4, Dalhousie Square East, Calcutta 1.

Tide Water Oil Co. (India) Ltd.—8, Clive Row, Calcutta 1. Times of India—13/1 & 13/2, Govt. Place East, Calcutta 1. Tinplate Co. of India Ltd.—4, Bankshall Street, Calcutta 1.

Toshniwal Bros. (Pvt.) Ltd.—85A, Sarat Bose Road, Calcutta 26.

Tractors (India) Ltd.—1, Taratolla Road, Garden Reach, Calcutta 24.

Trade Link (India) Ltd.—20, Netaji Subhas Road, Cal-

cutta 1.
Traders Cartel Pvt. Ltd.—285-H, Bowbazar Street,

Calcutta 12.

Traders' International Mercantile Agency Pyt. Ltd.—

Shakespeare Sarani, Calcutta 16.
 Tribeni Tissues Pvt. Ltd.—3, Middleton Street, Calcutta 16.

Turner Hoare & Co. Pvt. Ltd.—P29, Mission Row Extension, Calcutta 13.

Turner Morrison & Co. Ltd.—6, Lyons Range, Calcutta 1. Uberoi Ltd.—22-1, Chowringhee Road, Calcutta 13.

Union Carbide India Ltd.—Jeevandeer, 1, Middleton Street, Calcutta 16.

Union Tools & Agencies Pvt. Ltd.—Brabourne Court, 1, Chandni Chowk, Calcutta 13.

United Commercial and Industrial Co. Pvt. Ltd.—96/6/1, Dharamtolla Road, Salkia, Calcutta.

United Commercial Trading Corpn. Ltd.—138, BRBB Road, Calcutta 1.

United Equipment & Stores Pvt. Ltd.—53, Radhabazar \_ Lane, Calcutta 1.

United Flashlights Industries Pvt. Ltd.—14/2, Old China Bazar Street, Calcutta 1.

United Liner Agencies of India Pvt. Ltd.—17, Brabourne Road, Calcutta 1.

United Provinces Commercial Corporation Pvt. Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.

United Steel Companies (India) Pvt. Ltd.—23, Ganesh Chandra Avenue, Calcutta 13.

United Supply Agency Pvt. Ltd.—38, Strand Road, Calcutta 1.

Usha Automobile & Engineering Pvt. Ltd.—14, Princep Street, Calcutta 13.

Usha Martin Block (Wire Ropes) Ltd.—14, Princep Street, Calcutta 13.

Usha Telehoist Ltd.—14, Princep Street, Calcutta 13.
V. D. Swami & Co. Pvt. Ltd.—8, Ritchie Road, Calcutta 19.

Veegal Engines & Engg. Ltd.—31, Chittaranjan Avenue, Calcutta 12.

Vinar Ltd.—2-A, Shakespeare Sarani, Calcutta 16.

Virehand Panachand & Co. (Calcutta) Pvt. Ltd.—37, BRBB Road, Calcutta 1.

Voltas Ltd.-8, Netaji Subhas Road, Calcutta 1.

Vulubhdass Kalyanjee & Co. Pvt. Ltd.—134-A, Brabourne Road, Calcutta 1.

Walter Bushnell Pvt. Ltd.—18/2, Chowringhee Road, Calcutta 13.

Water Supply Specialists Pvt. Ltd.—Gujarat Mansions, Mission Row Extn., Calcutta 1.

Waxpol Industries Ltd.—9, Mitra House, 71, Ganesh Chandra Avenue, Calcutta 13. Weddel India Ltd.-103, Park Street, Calcutta 16.

Wellman Incandescent India Ltd.—8, Harrington Street, Calcutta 16.

Wesman Engineering Co. Pvt. Ltd.—1/2, Allenby Road, Calcutta 20.

West Bengal Dairy & Poultry Development Corpn. Pvt. Ltd.—105, Park Street, Calcutta 16.

West Bengal Safe Deposit Vault Ltd.—5, Clive Row, Calcutta 1.

West End Trading Co. Ltd.—91, Netaji Subhas Road, Calcutta 1.

Western India Match Co. Ltd.—Wellesley House, 7, Wellesley Place, Calcutta 1.

Western Mechanical Industries Pvt. Ltd.—10, Middleton Row, Calcutta 16.

Western Oxy-Acetylene & Electric Welding Co., Pvt. Ltd. —2/7, Sarat Bose Road, Calcutta 20.

Westinghouse Saxby Farmer Pvt. Ltd.—17, Convent Road, Entally, Calcutta 14.

Westrex Co.—Lighthouse Cinema Bldg., 2, Humayan Place, Calcutta 13.

W.H. Harton & Co. Ltd.—8, Dalhousie Sq. East, Calcutta 1.
 Wharton H. W. & Co. Ltd.—12, Brabourne Road, Calcutta 1.

Wheeler A. H. & Co., Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

William Jacks & Co. P. Ltd.—16, Netaji Subhas Road, Calcutta 1.

Williamson Magor & Co. Ltd.—4, Mangoe Lane, Calcutta 1.
Williamsons (India) Pvt. Ltd.—8, Netaji Subhas Road,
Calcutta 1.

W. Newman & Co. Ltd.—3, Old Court House Street, Calcutta 1.

Wood Craft Products Ltd.—P46A, Radha Bazar Lane, Calcutta 1.

Woolcombers of India Ltd.—31, Netaji Subhas Road, Calcutta 1.

Wren D. & Co.—Warley House, 25, Swallow Lane, Calcutta I.

W. S. Atkins & Partners (I) Ltd.—27, Free School Street, Calcutta 16.

W. S. Cresswell & Co. Pvt. Ltd.—3, Clive Row, Calcutta 1.
Zenith Distributors & Agents Ltd.—15, India Exchange Place, Calcutta 1.

## CLASSIFIED LIST OF TRADES AND PROFESSIONS

#### **ABRASIVES**

Carborundum Universal Ltd.—50, Syed Amir Ali Avenue, Calcutta 17.

Grindwell Abrasives Pvt. Ltd.—23, Ganesh Ch. Avenue, Calcutta 13.

Industrial Abrasives Co-op. Society Ltd.—36, Chittaranjan Avenue, Calcutta 12.

International Trading Co. (Engineers).—22, N. Subhas Road, Calcutta 1.

John Oakey & Mohan Ltd.—P-16, C.I.T. Road, Sch: 52, Calcutta 14.

Krishnalal Kedia.-25-A, Swallow Lane, Calcutta 1.

Ramawtar Rupnarayan.—224/5, Bidhan Sarani, Calcutta 12.

# ACCOUNTING, ADDING, ADDRESSING & STATISTICAL MACHINES, CALCULATORS, DUPLICATORS, ETC.

Adding Machines (India) Pvt. Ltd.—29, Ezra Mansions, 10, Govt. Place East, Calcutta 1.

Bradma of India Ltd.—20-B, Park Street, Calcutta 16. Gestetner Duplicators Ltd.—9-A, Esplanade East, Calcutta 1.

IBM World Trade Corpn.—Mackinnon Mackenzie Bldg. 16/18, Strand Road, Calcutta 1.

International Computers & Tabulators (I) Pvt. Ltd.—17, C. R. Avenue, Calcutta 13.

National Cash Register Co.—4-D, Dalhousie Sqr., Calcutta 1.

Typewriter & Stationery Corpn. Ltd.—12, N. Subhas Road, Calcutta 1.

### **ADHESIVES**

Adhesives & Allied Products.—12, N. Subhas Road, Calcutta 1.

Chandras Chemical Enterprises.—P-24, C. I. T. Road, Calcutta 14.

D. Wren & Co.-25, Swallow Lane, Calcutta 1.

Dinils Adhesives Pvt. Ltd.—8/1-B, J. M. Avenue, Calcutta 6.

Indian Eyelets Industries.—33, N. Subhas Road, Calcutta 1.

Industrial Chemicals & Adhesives.—11/45, Panditia Road, Calcutta 29.

National Adhesives.—38/49, S. K. Deb Road, Calcutta 48. People's Enterprises Pvt. Ltd.—16/1, Ganesh Ch. Avenue, Calcutta 13.

Sulekha Works Pvt. Ltd.-Sulekha Park, Calcutta 32.

## ADVERTISING & PUBLICITY AGENTS & CONSULTANTS

Advertising & Sales Promotion Co.—P-35, India Exchange Extension, Calcutta 1.

Ajanta Advertising.—24-B, Park Street, Calcutta 16.

Alpha Advertising Service.—Marble House, 5/2, Garstin Place, Calcutta 1.

Associated Advertisers & Printers Ltd.—1/1, Meredith Street, Calcutta 13.

Blaze Advertising Pvt. Ltd.—16, Theatre Road, Calcutta 16.

Calcutta Advertising Agency.—3, Kedarnath Bhattacharjee Lane, Calcutta 36.

Clarion McCann Advertising Services Ltd.—55-B, Free School Street, Calcutta 16.

Everest Advertising Pvt. Ltd.—27, Motilal Nehru Road, Calcutta 29.

Grant Advertising India Ltd.—16, Shakespeare Sarani, Calcutta 16.

Hindusthan Thompson Associates Ltd.—30, Bondel Road, Calcutta 31.

Ideal Advertising Agency.—54, College Street, Calcutta 12. India-International News Service.—12, India Exchange Place, Calcutta 1.

Indian Publicity Bureau Pvt. Ltd.—6/2, Madan Street, Calcutta 13.

Kalpana Advertising & Public Relations.—16, Harrington Mansions, 8, Harrington Street, Calcutta 16.

LPE-Aiyars Pvt. Ltd.—6, Little Russell Street, Calcutta 16.

National Advertising Agency.—P-360, Keyatolla St., Calcutta 29.

National Advertising Service Pvt. Ltd.—21, Princep Street, Calcutta 13.

Press & Publicity Syndicate Pvt. Ltd.—53, Radha Bazar Lane, Calcutta 1.

Press Syndicate Ltd.—91A, Park Street, Calcutta 16.

Progressive Publicity Service.—16-3, Gariahat Road, Calcutta 19.

Publicity Forum.—16, Rajendranath Mookerjee Road, Calcutta 1.

Sekai Pvt. Ltd.—13, India Exchange Place, Calcutta 1.

## AGRICULTURAL MACHINERY AND IMPLEMENTS

Agricultural Machinery Mfg. Corporation Ltd.—12B, Lower Chitpur Road, Calcutta 1.

Bharat Industries & Commercial Corpn.—Tower House, Chowringhee Square, Calcutta 1. Components and Machinery Corporation.—9/12, Lall Bazar Street, Calcutta 1.

East India Engg. & Agency Co. (Workshop).—63-1, Benaras Road, Calcutta 1.

Guchait, S. P. & Sons Pvt. Ltd.—15, Madhusudan Paul Chowdhury Lane, Calcutta 1.

Howrah Foundry Works Pvt. Ltd.—14/1/1A, Jackson Lane, Calcutta 1.

Industrial & Agricultural Engg. Co. (Calcutta) Ltd.—19, R. N. Mukherjee Road, Calcutta 1.

Larsen & Toubro Ltd.—Kanak Buildings, Chowringhee Road, Calcutta 16.

Marshall Sons & Co. (Manufacturing) Ltd.—33/1, Netaji Subbas Road, Calcutta I

Subhas Road, Calcutta 1.

Metal Craft (India) Ltd.—96, Garden Reach Road,

Calcutta 23.

Premier Irrigation Equipment Pvt. Ltd.—17/1C, Alipore Road, Calcutta 27.

Tractors (India) Ltd.—1, Taratolla Road, Garden Reach, Calcutta 24.

Voltas Ltd.—8, Netaji Subhas Road, Calcutta 1.

William Jacks & Co. India P. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## AIR CONDITIONING & REFRIGERATION

Air Conditioning Corpn, P. Ltd.—17, Taratolla Road, Calcutta 53.

American Refrigerator Co. Ltd.—13C, Russel Street, Calcutta 16.

Arya Refrigerator & Air-conditioning Corpn.—36, J. K. Paul Road, Calcutta 38.

Blue Star Engineering Co. Calcutta Pvt. Ltd.—7, Hare Street, Calcutta 1.

Calcutta Refrigerators Corpn.—4, Harrington Street, Calcutta 16.

Central Cooling Corporation.—61, Chittaranjan Avenue, Calcutta 12.

C. C. Saha Pvt. Ltd.—45, Moti Sil Street, Calcutta 13.

Century Refrigeration Co.—1/2C Kyd Street, Calcutta 16. Cooling Ventilating Co. Pvt. Ltd.—38, Russa Road, Calcutta 33.

Cumberland & Martin Pvt. Ltd.—51, Ripon Street, Calcutta 16.

Eastern Electric & Trading Co.—31, Chowringhee Road, Calcutta 16.

Fedders Lloyd Sales Corpn.—4A, Royd Street, Calcutta 16. Frigsales I. Pvt. Ltd.—2, Ganesh Ch. Avenue, Calcutta 13. Hatim & Co.—P39, Mission Row Extension, Calcutta 13. Hindustan Refrigerations Ltd.—9, Ezra Street, Calcutta 1.

International Refrigeration Engineering Co.—5/2, Ripon Street, Calcutta 16.

Keymer Bagshawe & Co. India Pvt. Ltd.—22, Strand Road, Calcutta 1.

Middleton Engineering Co.—12-F, West Galstaun Mansion, Calcutta 16.

National Refrigerators Ltd.—87, L. C. Road, Calcutta 16. New India Mercantile Co. Pvt. Ltd.—15, India Exchange Place, Calcutta 1.

Oriental Refrigeration Corporation.—17-A, Indian Mirror Street, Calcutta 13.

Refrige Pvt. Ltd.—16, Shakespeare Sarani, Calcutta 16. Refrigeration Equipment Ltd.—70, Diamond Harbour Road, Calcutta 23.

Refrigerators (I) Pvt. Ltd.—59C, Park Street, Calcutta 16.

Sur Industries Pvt. Ltd.—163, Acharya J. B. Road, Calcutta 14.

Universal Refrigeration Corpn. Pvt. Ltd.—47, Southern Avenue, Calcutta 29.

Voltas Ltd.-8, Netaji Subhas Road, Calcutta 1.

## **ALUMINIUM & ALUMINIUM PRODUCTS**

Alumilite Pvt. Ltd.—6A, Middleton Street, Calcutta 16. Aluminium Corporation of India Ltd.—7, Council House Street, Calcutta 1.

Aluminium Hindustan Pvt. Ltd.—2, Jessore Road, Calcutta 28.

Aluminium Industries Ltd.—20, British Indian Street, Calcutta 1.

Aluminium Manufacturing Co. Pvt. Ltd.—2, Jessore Road, Dum Dum, Calcutta 28.

Hindustan Aluminium Corporation Ltd.—27B, Carnac Street, Calcutta 17.

Indian Aluminium Co. Ltd.—1, Middleton Street, Calcutta 16.

L. Madanlal Aluminium Pvt. Ltd.—46, Strand Road, Calcutta 7.

Metalite Corporation.—166, Jessore Road, Calcutta 55.

Pressed Steel Co. Pvt. Ltd.—58, Old Mayor's Court,
Calcutta 5.

Ramchand Srinarayan.-1, Bonefield Lane, Calcutta 1.

#### **ASBESTOS**

Asbestos Cement Ltd.—Taratolla Road, G. R., Calcutta 24.
Asbestos Products Co.—71-A, N. Subhas Road, Calcutta 1.
Asbestos Magnesia & Friction Materials Ltd.—20/A,
Camac Street, Calcutta 16.

Hindustan Ferrodo Ltd.—20/A, Camac Street, Calcutta 16. Indian Asbestos Insulation Co.—28, Strand Road, Calcutta

J. D. Jones & Co. Ltd.—C/5, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

National Syndicate.-7, Hare Street, Calcutta 1.

Universal Asbestos Mfg. Co. Pvt. Ltd.—138, Canning Street, Calcutta 1.

Vinay Commercial Corporation.—23/A, N. Subhas Road, Calcutta 1.

## AUTOMOBILES & AUTOMOBILE PARTS & ACCESSORIES

Aeicorp Pvt. Ltd.—10, Lallbazar Street, Calcutta 1. Agency Services <sup>o</sup>Pvt. Ltd.—10/1, Princep Street,

Calcutta 13.
Alsales Ltd.—30, Bentinck Street, Calcutta 1.

Anand Motors.—24, Mangoe Lane, Calcutta 1.

Anglo American Autos Pvt. Ltd.—23, Ganesh Ch. Avenue, Calcutta 13.

Asbestos, Magnesia & Friction Materials Ltd.—20/A, Camac Street, Calcutta 16.

Associated Accessories Pvt. Ltd.—51, Ganesh Ch. Avenue, Calcutta 13.

Associated Automobiles.—P-39, Mission Row Extn., Calcutta 13.

Associated Indian Enterprises Pvt. Ltd.—225C, Acharya J. B. Road, Calcutta 17.

Austin Distributors Pvt. Ltd.—19, Chowringhee Road,

Auto Friends Pvt. Ltd.—P-74, Bentinck Street, Calcutta 1. Auto Industries of India.—7, Sooterkin Street, Calcutta 13.

0

Auto Sales Corporation.—10, Princep Street, Calcutta 13. Autocar Industries (Indis).—1, Gariahat Road, Calcutta 19. Automotive Agencies Pvt. Ltd.—Gujrat Mansion, 14, Bentinck Street, Calcutta 1.

Automotive Manufacturers Agencies (AM).—6, Saklat Place, Calcutta 13.

Automotive Rubber Co.—5, Sooterkin Street, Calcutta 13.
Bengal Auto Distributors.—57, Park Street, Calcutta 16.
Bharat Automobile Industries.—7, Ganesh Ch. Avenue,
Calcutta 13.

Bharat Industries & Commercial Corporation.—Tower House, Chowringhee Square, Calcutta 1.

Bhowanipur Motor Accessories Agency Pvt. Ltd.—23, Ganesh Ch. Avenue, Calcutta 13.

Bijay Automobiles.—10, Princep Street, Calcutta 13.

Calcutta Automobiles.—10, British Indian Street, Calcutta 1.

Calcutta Auto Enterprises.—7, British India Street, Calcutta 1.

Calcutta Auto Parts Co.—10B, Ashutosh Mukherjee Road, Calcutta 20.

Calcutta Motor Parts and Accessories Co. Pvt. Ltd.—19, Jatindra Mohan Lane, Calcutta 6.

Calcutta Pistons.—20, British Indian Street, Calcutta 1. Car Care Pvt. Ltd.—174, Mahatma Gandhi Rd., Calcutta 7. Central Automobiles.—17, Princep Street, Calcutta 13.

Central Motor Parts & Accessories Co. Pvt. Ltd.—20, Mangoe Lane, Calcutta 1.

Components & Machinery Corporation.—Mercantile Bldg., 9/12, Lal Bazar Street, Calcutta 1.

Cycle and Automobile Components Ltd.—4, Mission Row, Calcutta 1.

Daga Auto Service Pvt. Ltd.—Daga House, 8, Canning Street, Calcutta 1.

Daljit Motor Co.—P-34, Mission Row Extn., Calcutta 13. Dewar's Garage (India) Pvt. Ltd.—4, Council House Street, Calcutta 1.

Diesel Parts (India).—7, Sooterkin Street, Calcutta 13.
Dominion Distributors Pvt. Ltd.—11, British Indian Street, Calcutta 1.

East India Automobiles.—P-24, Mission Row Extn., Calcutta 13.

Eastern Automobiles.—P-74, Bentinck Street, Calcutta 1.
Eastern Auto Parts Co. (Calcutta) Ltd.—P21, Mission Row Extn., Calcutta 1.

Eastern Motors Pvt. Ltd.—75, Ganesh Ch. Avenue, Calcutta 13.

Fairways Industrial Corporation Pvt. Ltd.—12, Colootola Street, Calcutta 1.

French Motor Car Co. Ltd.—234/3, Lower Circular Road, Calcutta 20.

Fritz & Singh Pvt. Ltd.—227, N. S. C. Bose Road, Calcutta 47.

Gasper Automobiles Pvt. Ltd.—240E, Acharyya Jagdish Bose Road, Calcutta 20.

Hindustan Auto Suppliers.—P-50, Princep Street, Calcutta 13.

Hindustan Motors Ltd.—15, India Exchange Place, Calcutta 1.

Hindustan National Motor & Accessories Co.—181/7, Acharya Prafulla Ch. Road, Calcutta 1.

Hompaco Pvt. Ltd.—9, Mangoe Lane, Calcutta 1.

Howrah Motor Co. Pvt. Ltd.—16, R. N. Mukherjee Road, Calcutta 1. India Automobiles (1960) Ltd.—12, Govt. Place East, Calcutta 1.

Indo British Motor Industries.—157, Dharamtolla Street, Calcutta 13.

Industrial Accessories & Agency Pvt. Ltd.—6, Ashutosh Mukherjee Road, Calcutta 20.

International Tyres and Motors Pvt. Ltd.—2, Rowland Road, Calcutta 20.

Jaidka Motor Co. Ltd.—129, Park Street, Calcutta 16.

Jay Jay Automobiles Co. Pvt. Ltd.—P39, Mission Row Extn., Calcutta 1.

Kaybee & Co.—60/1, Chowringhee Road, Calcutta 20.
Lucas Indian Service Pvt. Ltd.—46, R. A. Kidwai Road, Calcutta 16.

Metal Specialities Pvt. Ltd.—6/1, Saklat Place, Calcutta 13.

Motor Fuel Stores Pvt. Ltd.—Mercantile Buildings,
Calcutta 1.

Northern Automobiles.—182/A, U. C. Road, Calcutta 4. Orient Motor Stores Pvt. Ltd.—P-62, Bentinck Street, Calcutta I.

Oriental Motor Accessories Agency Pvt. Ltd.—28, Chittaranjan Avenue, Calcutta 12.

P. K. Industries.—3/1, Mangoe Lane, Calcutta 1.

Pioneer Motors of India Pvt. Ltd.—5-A, Clive Ghat Street, Calcutta 1.

Poddar Automobiles Ltd.—36, Chowringhee Road, Calcutta.

Prabartak Motor Accessories Ltd.—18, Girish Avenue, Calcutta 3.

Sens Automobiles Pvt. Ltd.—2, Panditia Road, Calcutta 29.

Shados International Pvt. Ltd.—57, Ganesh Chandra Avenue, Calcutta 13.

Shah (I) Pvt. Ltd.—P-50, Princep Street, Calcutta 13.
 Standard Industries Corporation.—47, Netaji Subhas
 Ch. Bose Road, Tollygunje, Calcutta 40.

Star Automobile Co.—8/1, Princep Street, Calcutta 13.
Tracts Technic Corporation.—P-33, Mission Row Extension, Calcutta 13.

Unique Automobiles.—P-50, Princep Street, Calcutta 13.
 United Automobiles Pvt. Ltd.—51, Ganesh Chandra Avenue, Calcutta 13.

United Diesel Corporation.—3/1, Mangoe Lane, Calcutta 1.

United Motor Accessories Pvt. Ltd.—228/1, Acharya Jagdish Bose Road, Calcutta 20.

Universal Automobiles.—15, Princep Street, Calcutta 13. Walford Transport Ltd.—71, Park Street, Calcutta 16.

Western India Manufacturers Agency Pvt. Ltd.—159/E, Dharamtolla Street, Calcutta 13.

#### BALL & ROLLER BEARINGS

Ambica Mill Stores.—138, Canning Street, Calcutta 1.

Ashoka Industrial Corporation.—138, BRBB Road,
Calcutta 1.

Associated Bearing Co.—20, Netaji Subhas Road, Calcutta 1.

Associated Bearing Enterprises.—91, Netaji Subhas Road, Calcutta 1.

Auto Track (India).—20, Netaji Subhas Road, Calcutta 1.
Ball Bearing and Engineering Co.—52, Netaji Subhas Road, Calcutta 1.

Bearing Service Co.—138, Canning Street, Calcutta 1. Calcutta Bearing & Mill Stores.—10, Canning Street, Calcutta 1. Continental Bearing Agencies.—137, Canning Street, Calcutta 1.

East West Bearing Importers.—138, Canning Street, Calcutta 1.

General Ball Bearing Co.—133, BRBB Road, Calcutta 1. Hindustan Ball Bearing Corporation.—137, BRBB Road, Calcutta 1.

India Bearing Corporation.—P-25, Princep Street, Calcutta

Kemrub Pvt. Ltd.—14, Netaji Subhas Road, Calcutta 1. National Engineering Industries Ltd.—India Exchange Buildings, Calcutta 1.

Overseas Industrial Accessories.—38, Netaji Subhas Road, Calcutta 1.

Parry's Eastern Pvt. Ltd.—Standard Bldg., 32, Dalhousie Sqr. South, Calcutta 1.

Parsons Co.—18, Netaji Subhas Road, Calcutta 1.

Rex Corporation (India).—71/A, Netaji Subhas Road, Calcutta 1.

Shriram Bearings Ltd.—49/1, Gariahat Road, Calcutta 19.
S K F Ball Bearing Co. Pyt. Ltd.—11, Rajendra Nath Mukherji Road, Calcutta 1.

Sonees India Agencies.—138, Canning Street, Calcutta 1. Steelco Products.—26/1, Strand Road, Calcutta 1.

United Bearing Corporation.—P-7, Old China Bazar St., Calcutta 1.

William Jacks & Co. I. Pvt. Ltd.—16, Netaji Subhas Road, Calcutta 1.

Wren, D. & Co.—Wardley House, 25, Swallow Lane, Calcutta.

## BATTERY MANUFACTURERS & DEALERS

Associated Battery Makers (Eastern) Ltd.—59C, Chowringhee Road, Calcutta 20.

Acme Battery Mfg. Co.—8/1, Esplanade East, Calcutta I. Associated India Enterprises Pvt. Ltd.—225C, Acharya J. B. Road, Calcutta 17.

Barman & Co.—P-4, Puranchand Nahar Avenue, Calcutta 13.

Bharat Battery Mfg. Co. Pvt. Ltd.—238A, Acharya Jagdish Bose Road, Calcutta 20.

Chloride & Exide Batteries (Eastern) Pvt. Ltd.—Barlow House, 59, Chowringhee Road, Calcutta 20.

Dasapriya Auto Works.—115, Bidhan Sarani, Calcutta 4. Estrela Batteries Ltd.—22, BRBB Road, Calcutta 1.

Indian Battery Mfg. Co. Ltd.—1-A, "Mitar", Lower Circular Road, Calcutta 20.

Lucas Indian Service Pvt. Ltd.—46, R. A. Kidwai Road, Calcutta 16.

National Battery Co.—32, Gorachand Bose Road, Calcutta 6.

National Carbon Co. (India) Ltd.—18-A, Brabourne Road, Calcutta.

Oriental Battery Mfg. Co.—10, G. T. Roads, Howrah, Calcutta 1.

Sun Battery Co. Pvt. Ltd.—166, Upper Circular Road, Calcutta 4.

United Batteries Co.—24, Ganesh Ch. Avenue, Calcutta 13. V. N. Rajan & Co.—2/5/1, Hindustan Road, Calcutta 29.

## BELTING (LEATHER, HAIR & COTTON) & MECHANICAL LEATHERS AND BELT DRESSING

Asai Belting & Spinning Mills Ltd.—91, Netaji Subhas Road, Calcutta 1.

Bengal Belting Works Ltd.—2, Dalhousie Square East, Calcutta 1. Birkmyre Brothers Pvt. Ltd.—'Stephen House', 4, Dalhousie Square East, Calcutta 1.

D. Wren & Co.—Wardley House, 25, Swallow Lane, Calcutta 1.

Eastern Belting & Cotton Mills Pvt. Ltd.—20, N. S. Road, Calcutta 1.

E. B. Leather Mfg. Co.—76-A, Upper Circular Road, Calcutta.

Fenner, J. H., & Co. (India) Ltd.—56D, Free School Street, Calcutta 16.

F. Husain & Brothers.—28, Strand Road, Calcutta.

Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta 1. Hindusthan Belting & Spinning Mills Ltd.—174, Mahatma Gandhi Road, Calcutta 7.

India Belting & Cotton Mills Ltd.—7/G, Clive Row, Calcutta.

Indian Stores Supplying Co.—137, BRBB Road, Calcutta 1. Rostron & Co. Pvt. Ltd.—12-A, Ezra Mansion, 10, Govt. Place, East, Calcutta 1.

Serampore Belting Works Pvt. Ltd.—Serampore, Hooghly.

## **BISCUIT & CONFECTIONERY MANUFACTURERS**

Britannia Biscuit Co. Ltd.—15, Taratola Road, New Alipore, Calcutta 53.

C. E. Morton (I) Ltd.—2, Justice Chandra Madhab Road, Calcutta 20.

Kolay Biscuit Co. Pvt. Ltd.—100/A, Gharakdanga Road, Calcutta 10.

Kusum Products Ltd.—Bombay Mutual Building, 9, Brabourne Road, Calcutta 1.

Lily Biscuit Co. Pvt. Ltd.—3, Rama Kanta Sen Lane, Calcutta 4.

Santosh Biscuit Co. Pvt. Ltd.—179A, Manicktola Main Road, Calcutta 54.

## BOLT, NUT & RIVET MANUFACTURERS & DEALERS

Alliance Engineering Works.—71, Dharamtolla Street, Calcutta 13.

Aminchand Pyarelal Ltd.—15, Brabourne Road, Calcutta 1.

Associated Steel Products Corporation Private Ltd.—14, Chowringhee Road, Calcutta 16.

Bolts, Nuts & Forging Co.—47, Gaushala Road, Lilloah, (Dt. Howrah).

C. G. Engineering Works.—233, Belilios Road, Howrah. Eastern Industries.—25/27, N. Subhas Road, Calcutta 1. Ganesh Industries.—2, Haren Mukherji Road, Belurmath, Howrah.

Kasco Metal Products.—35, Bon Behari Rose Road, Calcutta 1.

King Engineering Co.-157, Belilios Road, Howrah.

Lyall, M. T. & Co. -36, Strand Road, Calcutta 1.

Mullick, S. N. & Co.—37, Netaji Subhas Road, Calcutta 1. National Machire Tools Co.—10/10, Brindaban Mullick Lane, Kadamtala, Howrah.

Nuts Mfg. Co.—85/1, Upper Chitpur Road, Calcutta 6.
Shalimar Iron Works.—62, College Ghat Road, Calcutta 3.
Standard Screws Industries.—34, N. Subhas Road, Calcutta 1.
Steel & Alfied Products Ltd.—6, Little Russell Street,

Calcutta 16.

Union Engineering Works.—4/1, Madan Street, Calcutta 13.

## **BOOKSELLERS, PRINTERS AND PUBLISHERS**

All India Publishing Co. Ltd.—30, Cornwallis Street, Calcutta 6.

Alpha Publishing Concern.—72, Mahatma Gandhi Road, Calcutta 9.

Aryan Publishing Co.—76, Bepin Behari Ganguli Street, Calcutta 12.

Asia Publishing Co.—A132/133, College Street, Market, Calcutta 12.

Asia Publishing House.—67, Ganesh Chandra Avenue, Calcutta 13.

Baikuntha Book House.—183, Cornwallis Street, Calcutta 6.

Banerjee Book Co.—10A, Gopal Banerjee Lane, Calcutta 26.

Bengal Publishers Pvt. Ltd.—14, Bankim Chatterjee Street, Calcutta 12.

Blackie & Son I. Ltd.—285/J, B. B. Ganguli Street, Calcutta 12.

Books of the World.—95, Keshab Chandra Sen Street, Calcutta 9.

Book Syndicate Pvt. Ltd.—2, Ramnath Biswas Lane, Calcutta 9.

Cambridge Book & Stationery Co.—20-D, Park Street, Calcutta 16.

Chuckerverty, Chatterjee & Co. Ltd.—15, College Square, Calcutta 12.

Das Gupta & Co. Pvt. Ltd.—54/3, College Street, Calcutta 12.

Delight Book Co.—173/3, Cornwallis Street, Calcutta 6.

Eastern Law House Pvt. Ltd.—54, Ganesh Chandra Avenue, Calcutta 13.

Mahnemann Publishing Co. Pvt. Ltd.—165, B.R.G. Street, Calcutta 12.

Indian Associated Publishing Co. Ltd.—93, M. G. Road, Calcutta 7.

Indian Progressive Publishing Co. Pvt. Ltd.—206, Cornwallis Street, Calcutta 6.
 K. C. Daw & Brothers Pvt. Ltd.—P247/8, Strand Bank

Road, Calcutta 1. Kothari Publications.—12, India Exchange Place, Cal-

cutta 1. M. C. Sarkar & Sons Pvt. Ltd.—14, Bankim Chatterji

Street, Calcutta 12.

Modern India Publications.—7, Nabin Kundu Lane,

Calcutta 9.

Mondal Brothers & Co. Pvt. Ltd.—54/8, College Street,

Calcutta 12.

National Book Agency Pvt. Ltd.—12, Bankim Chatterji

Street, Calcuta 12.

New Age Publishers Pvt. Ltd.—12, Bankim Chatterji Street, Calcutta 12.

Newman & Co. Ltd.—3, Old Court House Street, Calcutta 1.

Orient City Book Co. Pvt. Ltd.—12, Cornwallis Street, Calcutta 6.

Orient Longmans Pvt. Ltd.—17, Chittaranjan Avenue, Calcutta 13.

Oxford University Press.—P17, Mission Row Extn., Calcutta 1.

Prakash Mandir Pvt. Ltd.—3, College Row, Calcutta 9.
Pravat Book Co.—18B, Deshapran Sasmal Road, Calcutta 33.

Scientific Publishing Co.—85, Netaji Subhas Road, Calcutta 1.

Sri Aurobindo Books Distribution Agency Pvt. Ltd.—15, College Square, Calcutta 12. Standard Literature Co. Pvt. Ltd.—13/1, Old Court House Street, Calcutta 1.

Thacker Spink & Co. (1933) Ltd.—3, Esplanade East, Calcutta 1.

Vivekananda Book Agency.—71/2A, Cornwallis Street, Calcutta 6.

Wheelers Distributors Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

World Press Pvt. Ltd.—37, College Street, Calcutta 12.

## BRUSH MANUFACTURERS & DEALERS

Amherst Brush Factory.—12-B, Amherst Street, Calcutta 9.

B. C. Ghosh & Brothers.—44, Old China Bazar Street, Calcutta 1.

B. C. Mullick & Co.—25/A, Balaram Ghose Street, Calcutta 4.

Bengal Brush Factory.—20, Serpentine Lane, Calcutta 14. Bepin Pal Sons & Co.—174-A, Dharamtolla Street, Calcutta 13.

Bharat Industries Corpn. Pvt. Ltd.—88, Sambhu Halder Lane, Salkia.

Boseck & Boseck.—3, Prinsep Street, Calcutta 13.

Britannia Brush Works.—123-24, Canning Street, Calcutta 1.

Calcutta Brush & Fibre Co.—Barnagore, Calcutta 36.

Calcutta Carbon Brush Mfg. Co.—21, Parsee Church Street, Calcutta 16.

Caledonian Brush Works.—20-1, Manick Bose Ghat Street, Calcutta 6.

Climax Brush Works.—64-A, Mirzapur Street, Calcutta 9. Eagle Brush Mfg. Corporation.—10/1, Russa Road, Calcutta 33.

General Electric Trading Co.—52, Creek Row, Calcutta 14. India Brushware.—72 Canning Street, Calcutta 1.

India Carbon Brush Mfg. Co.—26, Pollock Street, Calcutta 1.

 National Brush Factory.—6, Pataldanga Street, Calcutta 9.
 P. D. Simpson & Co.—P. 33, Mission Row Extension, Calcutta 13.

Pioneer Brush Factory.—11, Amherst Street, Calcutta 9. Preston Electric Co. (I) Pvt. Ltd.—2, Madan Street, Calcutta 13.

Victor Works.—2, Parshi Bagan Lane, Calcutta 9.

Vulcan Brush Works.—1, Nabo Kumar Raha Lane,
 Calcutta 4.
 Western Brush Co.—18, Amherst Street, Calcutta 9.

## **BUCKET MANUFACTURERS**

Asian Industries.—9, Upper Chitpur Road, Calcutta 7.
Bengal Iron Trading Co.—227, Chotaylal Misra Lane,
Howrah.

Bharat Steel & Metal Industries.—14/2, Old China Bazar Street, Calcutta 1.

East India Metal Co. Pvt. Ltd.—41/1B, Ram Kant Bose Street, Calcutta 3.

Goodman & Co. (I) Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.

Hindustan Industrial Co.—192, Jamunalal Bazaz Street, Calcutta 7.

Metal & Alloy Corporation.—38-A, Belgachia Road, Calcutta 37.

Shree Hanuman Iron Works.-42/1 Road, Calcutta 1.

## CABLE & WIRE MANUFACTURERS & DEALERS

Aluminium Cable & Conductors (U.P.) Pvt. Ltd.—2A, Shakespeare Sarani, Calcutta 16.

Electrical Industries Corpn.—49/1, Gariahat Road, Post Box No. 10201, Calcutta 19.

Electrical Manufacturing Co. Ltd.—136, Jessore Road, Calcutta 55.

Empire Cable Co.-22, Brabourne Road, Calcutta 1.

Everlite Insulating Industries Ltd.—137, Biren Roy Road, West, Calcutta 8.

Fort Gloster Industries Ltd.—31, Chowringhee Road, Calcutta 16.

Hindustan Wire Products Ltd.—14, Netaji Subhas Road, Calcutta 1.

Indian Cable Co. Ltd.—P. O. Box No. 514, 9, Hare Street, Calcutta 1.

Indo-American Electricals Ltd.—21, Old Court House Street, Calcutta 1.

National Cable Works Ltd.—20, Goalpara Road, Behala, Calcutta 34.

National Insulated Cable Co. of India Ltd.—Nicco House, 2, Hare Street, Calcutta 1.

Power Cables Corporation.—20-A, Camac Street, Calcutta 16.

Universal Cables Ltd.—15, India Exchange Place, Calcutta 1.

## CARDBOARD BOX & CARTON MANUFACTURERS

Arun Corrugating & Packaging Industry.—36, Brabourne Road, Calcutta 1.

Associated Packaging Industries.—37, Canning Street, Calcutta 1.

Bengal Box Mfg. Co.—14, Raj Kumar Chatterjee Road, Cossipur, Calcutta 2.

Bengal Paper Tube & Box Mfg. Co.—18, Park Street, Calcutta 16.

Bharat Cardboard Industries & Printing Co.—277/5, Manicktala Main Road, Calcutta 11.

Board & Paper Converters.—152/6, Salkia School Road, Howrah.

Calcutta Paper Industries.—121, C. R. Avenue, Calcutta 7. Cardboard & Paper Products Co.—44, Lockgate Road, Calcutta 2.

Card Board Box Mfg. Co.—41, Chowringhee, Calcutta 16. Cardboard Materials & Printing Co. Pvt. Ltd.—7, Convent Road, Calcutta 14.

Central Card Board Box Mfg. Co.—25, Dr. Kartick Bose Street, Calcutta 9.

Diamond Products Ltd.—Rajabagal Alam Bazar,
\_\_Calcutta 35.

Krishna Card Board Box Mfg. Co.—58, Suren Sarkar Road, Calcutta 10.

Leonard Cardboard Box Factory Pvt. Ltd.—1/1, Galif Street, Calcutta 3.

Modern India Machine Tools Pvt. Ltd.—18-1-6, Canal West Road, Calcutta 9.

Packing & Printing Industries.—1, British Indian Street,
Calcutta 1.

Paper Industries.—32/14A, Beadon Street, Calcutta 6.

Profulla Box Mfg. Co. Pvt. Ltd.—80/2, Baithakhana Road, Calcutta 9.

Standard Cardboard Industries.—18, Belgaha Road, Calcutta 4.

Union Packaging Industries.—5, Burroshibtolla Main Road, Calcutta 38.

## CARPETS

Birla Jute Mfg. Co. Ltd.—8, Royal Exchange Place, Calcutta 1.Cosmo Trading Co.—98, Netaji Subhas Road, Calcutta 1. Eastern Carpets Pvt. Ltd.—20, Park Street, Calcutta 16. Indian Carpet Corporation.—30, Central Avenue, Calcutta 12.

Khardah Co. Ltd.—7, Wellesley Place, Calcutta 1.

Shree Hanuman Jute Mills.—8, D. Square East, Calcutta 1. Shroffs Carpets.—12, Chowringhee Road, Calcutta 13.

#### CHAINS

All India Chain Repairing & Mfg. Co.—29/B, Bentinck Street, Calcutta 1.

Arthur Bagree & Co. (India).—40, Strand Road, Calcutta 1.

Blue Star Corpn. (India).—16, Rupchand Roy Street, Calcutta 7.

Continental Tools & Machinery.—3, Saklat Place, Calcutta 13.

Eastern Commercial Corporation.—5/1, Clive Row, Calcutta 1.

Impex Sales Corporation.—37/A, Tarachand Dutt Street,
Calcutta 1.

Indian Chain Mfg. Co.—137, Canning Street, Calcutta 1.

R. B. Trading Co.—71-A, Netaji Subhas Road, Calcutta 1. R. N. Nundi & Co.—29-B, Bentinck Street, Calcutta 1.

S. A. Goolamally & Co.—77, Netaji Subhas Road, Calcutta 1.

Sanatan Iron & Steel Chain Mfg. Co. Pvt. Ltd.—29/B, Bentinck Street, Calcutta 1.

Victoria Corporation (India).—138, Canning Street, Calcutta 1.

## CHEMICALS MANUFACTURERS

Alkali & Chemical Corpn. of India Ltd.—I. C. I. House, 34, Chowringhee, Calcutta 16.

Allied Resins & Chemicals Pvt. Ltd.—13, Camac Street, Calcutta 16.

Basic Synthetics and Chemicals Pvt. Ltd.—25, East Road, Calcutta 32.

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.

Bengal Immunity Co. Ltd.—153, Dharamtolla Street, Calcutta 13.

Calcutta Chemical Co. Ltd.—35, Panditia Road, Calcutta 29.

Chemical Plant and Equipment Ltd.—66, Dharamtolla Street, Calcutta.

Dr. Paul Lohmann (I) Ltd.—East Anglia House, 3, Camac Street, Calcutta 16.

Durgapur Chemicals Ltd.—6, Little Russell Street, Calcutta 16.

East Anglia Plastics (India) Ltd.—East Anglia House, 3, Camac Street, Calcutta 16.

East India Pharmaceutical Works Ltd.—6, Little Russell Street, Calcutta 16.

Glaconate Ltd. -23, Camac Street, Calcutta 16.

Henry S. Clerk & Co.—Kent House, P-23, Mission Row Extension, Calcutta 13.

Hindustan Gas & Industries Ltd.—"Industry House", 18th Floor, 10, Camac Street, Calcutta 16.

Hindustan Heavy Chemicals Ltd.—14, Radha Bazar Lane, Calcutta 1.

Indian Oxygen Ltd.—Oxygen House, P-34, Taratala Road, Calcutta 53.

Jay Shree Chemicals & Fertilizers.—Industry House, 10, Camac Street, Calcutta 16.

Neo Chemical and Engineering Industries.—38, Pratapadiya Place, Calcutta 26.

a

Phosphate Co. Ltd.—14, Netaji Subhas Road, Calcutta 1. Seth Chemical Works.—160, Jamunalal Bajaj Street, Calcutta 7.

Shroff Chemicals Pvt. Ltd.—3, Rafi Ahmed Kidwai Road, Calcutta 13.

## CHEMICALS, DRUGS AND PHARMACEUTICAL PRODUCTS

Adeco Ltd.—2, Jawaharlal Nehru Road, Calcutta 13.

Antibiotics Stores Pvt. Ltd.—55, Canning Street, Western Block, 2nd Floor, Calcutta 1.

Asia Drugs Co., Ltd.—29, Strand Road, Calcutta 1.

Atlantis (East) Ltd.—41, Chowringhee Road, Calcutta 16.

Bathgate & Co. Ltd.—2, Dalhousie Square East,
Calcutta 1.

B. A. Brothers (Eastern) Pvt. Ltd.—6, Clive Street, Calcutta 1.

Bengal Acid & Chemical Manufacturing Co.—27-A, Acharya Prafulla Chandra Road, Calcutta 9.

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.

Bengal Drugs & Pharmaceutical Works.—Lakshmibilas House, 11, Raj Narayan Street, Calcutta 9.

Bengal Immunity Co. Ltd.—67, Southern Avenue, Calcutta 29.

Bharat Laboratory & Chemical Works Ltd.—18, Zalaria Street, Calcutta 1.

Bio-Drug Laboratories Pvt. Ltd.—348, Maharaja Nanda K. Road, Calcutta 35.

Biological Evans Ltd.—21, B. B. G. Street, Calcutta 12.
British Medicine & Pharmaceutical Co.—44, Ezra Street,
Post Box No. 2635, Calcutta 1.

Calcutta Industrial Chemicals & Minerals Co. Ltd.—43, Dharamtolla Street, Calcutta 13.

Calcutta Soap Works Ltd.—70, N. S. Road, Calcutta 1.
Charak Chemical Works Ltd.—161-1/1, M. G. Road, Calcutta 7.

Chemical & Surgical Works Ltd.—186, BBG Street, Calcutta 12.

Ciba Industries Ltd.—59-D, Chowringhee, Calcutta 20.

Dey's Medical Stores Mfg. Pvt. Ltd.—6/2B, Lindsay Street, Calcutta 16.

East India Pharmaceutical Works Ltd.—102, Syamprosad Mukherji Road, Calcutta 26.

Frank Rose & Co. Ltd.—15/7, Chowringhee, Calcutta 13. Glaxo Laboratories (I) Ltd.—50, Hide Road, Calcutta 27. Grimault Ltd.—Laboratories.—40/B, Princep Street, Calcutta 13.

Hindusthan Scientific Chemical Industries Pvt. Ltd.—6, Mangoe Lane, Calcutta 1.

Hoechst Pharmaceuticals Pvt. Ltd.—4, Govt. Place North, Calcutta 1.

Imperial Chemical Industries (I) Ltd.—34, Chowringhee, Calcutta 1.

Indian National Drug Co. Pvt. Ltd.—5/2, Beliaghata Main Road, Calcutta 10.

Indo-British Chemical Co.—32-2, Murari Pookur Road, Calcutta 4.

International Chemical Industries.—1038, U. C. Road, Calcutta 9.

Kanoria Chemicals & Industries Ltd.—9, Brabourne Road, Calcutta 1.

Kemp & Co. Ltd.—32/C, C. R. Avenue Road, Calcutta 12.
Lyndon Chemical Industries Ltd.—4, Rifle Road, Park Circus, Calcutta 17.

Martin & Harris Pvt. Ltd.-Mercantile Bldg., Lall Bazar, Calcutta 1.

May & Baker (India) Ltd .- 7, Old Court House Street, Calcutta 1.

National Carbon Co.-5, Rustomjee Parsi Road, Calcutta 2.

Organon (India) Ltd.—Himalava House, 38, Chowringhee

Road, Calcutta 16. Oriental Research & Chemical Laboratory Ltd.—61, Shree Aravinda Road, Calcutta 6.

Sandoz India Ltd.—3A, Shakespeare Sarani, Calcutta 16. Sen's Chemical Works Pvt. Ltd.-271, Chittaranjan Avenue, Calcutta 6.

Shalimar Chemical Works Pvt. Ltd.-1, Chetla Central Road, Calcutta 27.

Shaw Wallace & Co.-4, Bankshall St., Calcutta 1.

Smith Stanistreet & Co. Ltd .- 18, Convent Road, Entally, Calcutta 14.

Stadmed Pvt. Ltd.—18, Chowringhee Road, Calcutta 20. Standard Industrial & Commercial Corpn. Ltd.-24,

Chittaranjan Avenue, Calcutta 12. Standard Pharmaceuticals Ltd.-67, Dr. Suresh Sarkar Road, Calcutta 14.

Sterling Pharma Products Co. Ltd.—72-2, Sambhunath Pandit Street, Calcutta 25.

Union Carbide India Ltd.-1, Middleton Street, Calcutta 16. Universal Drug House Pvt. Ltd.-10, Bonfield Row, Calcutta 27.

## CONDUIT PIPES

Great Eastern Pipe Works.—24C, Nimtolla Ghat Street,

International Wire Nail Mfg. Co.-106, Andul Road, Sakli, Howrah.

Kamala Street Metal Industries Pvt. Ltd.—98 & 99, Beliaghat, Main Road, Calcutta 10.

Kedernath Parsotamdas & Co. Pvt. Ltd.—37, Netaji Subhas Road, Calcutta 1.

S. D. Trading Co.-62, Netaji Subhas Road, Calcutta 1. S. N. Sen & Co.-18/1, Shib Narayan Das Lane, Calcutta 6.

## CYCLES & MOTOR CYCLE MANUFACTURERS & DEALERS

Hindustan Bicycle Mfg. & Industrial Corpn. Ltd.-28, Bepin Pal Road, Calcutta 26.

International Engineering Co.—17, Rafi Ahmed Kidwai Road, Calcutta 13.

Sen-Raleigh Ltd.-1, Middleton Street, Calcutta 16.

#### **DIE-CASTINGS**

Ahuja & Co.-82, Chetla Road, Calcutta 27.

Hind Die-Castings Pvt. Ltd.—23/24, Radha Bazar Street, Calcutta 1.

Basant Tools Pvt. Ltd.—3, Burtolla Street, Calcutta 7. Precision Products of India.-10A, Creek Lane,

Calcutta 14.

## **DIESEL ENGINES & PARTS**

Blackwood Hodge (India) Pvt. Ltd.-139, Beliaghata Road, Calcutta 15.

Components & Machinery Corpn.-9/12, Lall Bazar Street, Calcutta 1.

Edward & Co.-35, Chittaranjan Avenue, Calcutta 12. General Trading Co.-138, BRBB Road, Calcutta 1. G. M. C. Brothers & Co.-2, Meredith Street, Calcutta 13. Indian National Diesel Engines Co. Ltd.—Hal & Anderson Bldg., Park Street, Calcutta 16.

Industrial Gases Ltd.-15, Ganesh Chandra Avenue, Calcutta 13.

Kilburn & Co. Pvt. Ltd .- 2, Fairlie Place, Calcutta 1.

Laxmi Machinery Store .- 10, Canning Street, Calcutta 1. Modern Engineering Co.-138, Canning Street, Calcutta 1. Sigil India Services Pvt. Ltd.-26/1, Strand Road, Calcutta 1.

S. K. Bhattacharjee & Co.-18, N. Subhas Road, Calcutta 1.

United Provinces Commercial Corporation, The .- 4, Princep Street, Calcutta 13.

Voltas Ltd.—8, Netaji Subhash Road, Calcutta.

## DRAWING & SURVEYING INSTRUMENTS

Adair Dutt & Co. India Pvt. Ltd.—5, Dalhousie Square East, Calcutta 1.

B. Kelley & Sons.—27/1B, Simla Road, Calcutta 6.

East End Engineers .- 52, Bhopendra Bose Avenue, Calcutta 4.

Eastern Distributing Co. of India.—14/2, Old China Bazar Street, Calcutta 1.

J. Sur & Co.-10, Old Court House, Street, Calcutta 1. Kilburn & Co. Ltd .-- 2, Fairlie Place, Calcutta 1.

Killearn & Co.—106/C, Raja Dinendra Street, Calcutta 4. National Instruments Ltd.—Raja Subodh Mullick Road,

Products India Ltd.—114, Stephen House, Dalhousie Square, Calcutta 1.

Scientific Miscellany Co.-16, Pasupati Bose Lane,

Simco.—2A, Kedar Dutt Lane, Calcutta 6.

Standard Trading Co.-43, Ezra Street, Calcutta 1.

Survey Industries .- 2A, Congress Exhibition Road, Calcutta 17.

## DRUMS & CONTAINERS

Bhagat Trading Syndicate .- 7, Vivekananda Road, Calcutta 7.

Dhur Galvanising Works (1955), Ltd.—92, Ultadanga Main Road, Calcutta 4.

Kamala Factory.—13/3, Pathuriaghata Street, Calcutta 6. Laxmi Trading Co.—192, Cross Street, Calcutta 7.

Metal Products & Engg. Co.—124, M. Gandhi Road, Calcutta 7.

M. L. Day & Co.—57-B, Chittaranjan Avenue, Calcutta 12. Metal Container Co .- P-2, Mission Row Extn., Calcutta 1.

## EARTHMOVING MACHINERY & EQUIPMENT

Amalgamated Universal Agencies.—71, Canning Street, Calcutta 1.

Amrit Auto Stores.—19, Goabagan Street, Calcutta 6., Arora Trading Corporation.—10/1, Princep Street,

Calcutta 13.

Ashoka Engineering Works.—4, Chandni Chowk Street, Calcutta 13.

Associated Automobiles .- P-39, Mission Row Extn., Calcutta 13.

Bahri & Co. Pvt. Ltd.—P-39, Mission Row Extn., Calcutta 13.

Bhogilal Vora.—5, Mullick Street, Calcutta 7.

Blackwood Hodge (India) Pvt. Ltd.—139, Beliaghata Road, Calcutta 15.

Components & Machinery Corpn.—9/12, Lal Bazar Street, Calcutta 1.

D. M. Shah & Co.-7, Sooterkin Street, Calcutta 13. D. P. Varma & Co.—10/1, Princep Street, Calcutta 13. Edward & Co.-35, Chittaranjan Avenue, Calcutta 12.

Equipment. - 10/1, Princep Street, Calcutta 13.

Heavy Spares Corporation.—15, Ganesh Chandra Avenue, Calcutta 13.

Hindustan Engineering Co.-138, Canning Street, Calcutta 1.

Indersons Corporation.—10/1, Princep Street, Calcutta 13. India Diesels Services .- 4, Ganesh Chandra Avenue, Calcutta 13.

Indo Trading Enterprises.—20, Netaji Subhas Road,

Calcutta 1. Industrial & Agricultural Co.-P-50, P.incep Street, Calcutta 13.

Jayanti Engineering Co.—14, Princep Street, Calcutta 13. Kohinoor Engineering Co.—P-27, Princep Calcutta 13.

Machinery Spares Corporation.-1, Chandni Chawk Street, Calcutta 13.

Marshall Sons & Co. (India) Ltd.—33/1, Netaji Subhas Road, Calcutta 1.

Pioneer Construction & Equipment Co.-4, Chandni Chawk Street, Calcutta 13.

P. L. Khanna & Co.—7, Sooterkin Street, Calcutta 13.

P. N. Engineering Corporation.—105, Sovabazar Street, Calcutta 5.

Shados International Pvt. Ltd.-57, Ganesh Chandra Avenue, Calcutta 13.

Spares India.—P-50, Princep Street, Calcutta 13.

Standard Engineering Corporation .- P-50, Princep Street, Calcutta 13.

Star Trading Agency.—42, Ganesh Chandra Avenue, Calcutta 13.

Tracon Engineers Pvt. Ltd.—217, Lower Circular Road, Calcutta 17.

Tractors (India) Ltd.-1, Taratolla Road, Garden Reach, Calcutta 24.

Tractor Spares Pvt. Ltd.—8-B, Lalbazar Street, Calcutta 1. Tracto Shovel Corporation .- 4, Chandni Chawk Street, Calcutta 13.

Tracto Technic Corporation .- 17, Ganesh Chandra Avenue, Calcutta 13.

Traxon's.—15, Ganesh Chandra Avenue, Calcutta 13. Voltas Ltd.—8, Netaji Subhas Road, Calcutta 1.

William Jacks & Co. India Private Ltd .-- 16, Netaji Subhas Road, Calcutta 1.

## **ELECTRIC FANS**

Aero Flow Co.-16, Mondal Temple Road, Calcutta 53. Calcutta Fan Works Pvt. Ltd.-30, Jawaharlal Nehru Road, Calcutta 16.

Caravan Industries.—252, Picnic Garden Road, Calcutta 39. Clyde Fan Co. Ltd. -21/2, Chowringhee Road, Calcutta 13. Engineering Works of India Pvt. Ltd.—104, S. P. Mukherjee Road, Calcutta 26.

General Electric Co. of India Pvt. Ltd.-6, Chittaranjan Avenue, Calcutta 13.

India Electric Works Ltd.—D. H. Road, Calcutta 34.

India Reconstruction Corpn. Ltd.-21-A, Gour Laha Street, Calcutta.

Jay Engineering Works Ltd.—183-A, Prince Anwar Shah Road, Calcutta 31.

Keymer Bagshawe & Co. (India) Pvt. Ltd.—22, Strand Road, Calcutta.

Marconi Electric Corporation Pvt. Ltd.-117, Keshab Sen Street, Calcutta 9.

PR/BE/T/E-1/89



Manufactured by BHARAT ELECTRICAL INDUSTRIES LTD. Calcutta-1.

Bombay Branch: 11, Bank Street, Fort, Bombay-1. Agents: THE ORIENTAL MERCANTILE CO. LTD.

Nistarini Electric Co. Pvt. Ltd.—20A, N. Subhas Road, Calcutta 1.

Orient General Industries Ltd.—6, Ghore Bibi Lane, Calcutta 11.

Panday Industries Pvt. Ltd.—202/2, Netaji Subhas Chandra Bose Road, Calcutta 47.

# **ELECTRIC MOTORS, GENERATORS & SETS**

Allied Electrical Corporation Pvt. Ltd.—13, Canning Street, Calcutta 17.

British India Electric Construction Co. Ltd.—14, Mayurbhanj Road, Calcutta 23.

Dassani Engg. Co. & Agencies—16, Ganesh Ch. Avenue, Calcutta 13.

Deepak Engg. Co.—37, Canning Street, Calcutta 1.

General Machinery Corpn.—67, Ganesh Ch. Avenue, Calcutta 13.

Herald Corporation.—1, Chandni Chowk Street, Calcutta 13.

India Electric Works Ltd.—Diamond Harbour Road, Calcutta 34.

Motor and Machinery Manufacturers Ltd.—3/1, Krishna Behari Sen Road, Calcutta 7.

Motor & Pumps Syndicate.—2, Kapalitola Lane, Calcutta 12.

Power and Machinery (India) Ltd.—3, Mangoe Lane, Calcutta 1.

Eastern Electric Co.—41, Dharamtolla Street, Calcutta 13.
Eastern Electric & Training Co.—31, Chowringhee Road,
Calcutta 16.

## **ELECTRICAL GOODS & APPLIANCES**

Associated Electrical Industries India Ltd.—13, R. N. Mukherjee Road, Calcutta 1.

Associated Electro Mechanical Engineers Pvt. Ltd.—7, Lower Chitpore Road, Calcutta 1.

Bagchi Electric Co.—262, Upper Circular Road, Calcutta 6. Bajaj Electricals Ltd.—10, Ganesh Ch. Avenue, Calcutta 13. Bells Electrical Corporation Pvt. Ltd.—P-36, India Exchange Place, Calcutta 1.

Bengal Electrical Industries.—16, India Exchange Place, Calcutta 1.

Bharat Electrical Industries Ltd.—5, Mission Row, Calcutta 1.

Brentford Electric (I) Ltd.—P-25, Transport Depot Road, Calcutta 27.

British Engineering Corpn.—3, Baretto Lane, Calcutta 1. British India Electric Construction Co. Ltd.—14, Mayurbhanj Road, Calcutta 23.

Casting Corpn. (India) Ltd.—45, Madhusudan Pal Choudhary Lane, Howrah.

Cleco Pvt. Ltd.—2/1, Barrackpore Trunk Road, Baranagore, Calcutta 50.

Cyma Electric Works.—12, Chapel Road, Hastings, Calcutta 22.

Deep Sun Industrial Corporation.—36, Ezra Street, 3rd Floor, Calcutta 1.

Durga Engineering Works.—145, Dharamtolla Street, Calcutta 13.

Electric Construction & Equipment Co., Ltd.—9, Kaliprasanna Singhee Road, Calcutta 2.

Electrical Industries Corpn.—20, Ballygunge Park Road, Calcutta 19.

Electrical Mfg. Co. Ltd.—EMC Gardens, 136, Jessore Road, Calcutta 28. English Electric Co. of India Pvt. Ltd.—D-3, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Everlite Insulating Industries Pvt. Ltd.—137, Biren Roy Road, West, Calcutta 8.

Flash Lights India Pvt. Ltd.—135, Princep Street, Calcutta 13.

General Electric Co. of India Pvt. Ltd.—6, Chittaranjan Avenue, Calcutta 13.

Hindustan Electric Co. Ltd.—184, J. N. Mukherjee Road, Salkia, Howrah.

Hindustan General Electrical Corpn. Ltd.—25, Brabourne Road, Calcutta 1.

India Electric Works Ltd.—Diamond Harbour Road, Calcutta 34.

Indo-American Electricals Ltd.—21, Old Court House Street, Calcutta 1.

Jay Engineering Works Ltd.—183-A, Prince Anwar Shah Road, Dhakuria, Calcutta 31.

J. Stone & Co. (India) Pvt. Ltd.—16, Taratalla Road, Calcutta 53.

Kalinga Industries Ltd.—33, Chittaranjan Avenue, Calcutta 12.

Luz Electricals Pvt. Ltd.—30, Chittaranjan Avenue, Calcutta 12.

Malik Electricals Pvt. Ltd.—P-34, C.I.T. Road Calcutta 14.

Motor & Machinery Mfrs. Ltd.—3/1, Krishna Behari Sen Street, Calcutta 7.

Mullick, B. C. & Co.—25-A, Balaram Ghose Street, Calcutta 4.

National Conduits.—15, Ganesh Chandra Avenue, Calcutta 13.

Orient General Industries Ltd.—111/1, B. T. Road, Calcutta 35.

Philips India Ltd.—Philips House, 7, J. C. Madhab Road, Calcutta 20.

Power Transmission & Construction Co.—91, Netaji Subhas Road, Calcutta 1.

Sett & De.—16, Ganesh Ch. Avenue, Calcutta 13.

Suburban Electrical Engineering Co. Pvt. Ltd.—34-A, Ananda Palit Road, Calcutta 14.

United Flash Light Industries Pvt. Ltd.—46, Muraripukur Road, Calcutta 11.

#### **ENGINEERING**

Abrasive & Castings Ltd.—Avenue House, 1, Chowringhee Square, Calcutta 1.

ACC-Vickers Babcock Ltd.—I & 3, Brabourne Road, Calcutta 1.

Acme Mfg. Co.—8/1, Esplanade East, Calcutta 1.

Agarwal Hardware Works Pvt. Ltd.—10, Stark Road, Liluah, Howrah.

Agrind Fabrications Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.

Ajay Industries Ltd.—23/24, Radhabazar Street, Calcutta 1.

Ancillary Industries Cranks Pvt. Ltd.—Mercantile Bldgs., 9 Lall Bazar, Calcutta 1.

Andrew Yule & Co. Ltd.—8, Clive Row, Calcutta 1.

Apeejay Structurals Ltd.—15, Brabourne Road, Calcutta 1.

Arim Metal Industries Pvt. Ltd.—23, Convent Road, Calcutta 14.

Arvind Engg. Works Pvt. Ltd.—P-12/3, Taratolla Road, Calcutta 53.

Asia Engineering Supply Stores Pvt. Ltd.—P15, Bentinck Street, Calcutta 1. Asiatic Wires Ltd.—P-23/24, Radhabazar Street, Calcutta 1.

Associated Aesby Industries Pvt. Ltd.—22, Strand Road, Calcutta 1.

Atlas Works Pvt. Ltd.—119, Ripon Street, Calcutta 16. Avery Co. of India Pvt. Ltd.—28-2, Waterloo Street, Calcutta 6.

B. R. Herman & Mohatta (India) P. Ltd.—16, British Indian Street, Calcutta.

Babcock & Wilcox of India Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta 1.

Bagri Steel Industries Pvt. Ltd.—138, Canning Street, Calcutta 1.

Belliss & Morcom (India) Ltd.—6, Little Russell Street, Calcutta 16.

Bengal Industries.—23A, N. S. Road, Calcutta 1.

Bengal Ingot Co. Ltd.-5, Hide Road, Calcutta 43.

Bengal Rolling Mills Ltd.—67B, Netaji Subhas Road, Calcutta.

Bertrams-Scott (India) Ltd.—1/1, Kimber Street, Calcutta 17.

Bestobell India Pvt. Ltd.—24, Chittaranjan Avenue, Calcutta 12.

Bharat Barrel & Drum Mfg. Co. Ltd.—2, Garstin Place, Calcutta 2.

Bhartia Electric Steel Co. Ltd.—8, Swinhoe Street, Ballingunge, Calcutta 19.

Blackwood Hodge (India) Pvt. Ltd.—103, Park Street, Calcutta 16.

B. N. Steel Industries Pvt. Ltd.—29, Strand Road, Calcutta 1.

Bombay Safe & Steel Works Pvt. Ltd.—56, Netaji Subhas Road, Calcutta 1.

Bose Industries Pvt. Ltd.—32, Shib Chandra Chatterjee Street, Belur, Howrah.

Braithwaite & Co. (India) Ltd.—Hide Road, Kidderpore, Calcutta 43.

Braithwaite Burn & Jessop Construction Co. Ltd., P-13, Mission Row Extension, Calcutta 1.

Britannia Building & Iron Co. Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta 1.

Britannia Engg. Co. Ltd.—3, Netaji Subhas Road, Calcutta 1.

British India Electric Construction Co. Ltd.—14, Mayurbhanj Road, Calcutta 23.

Burn & Co. Ltd.—12, Mission Row, Calcutta 1.

Calcutta Expanded Metal Mfg. Co. Pvt. Ltd.—P-16, Kalakar Street, Calcutta 7.

Calcutta Steel Co. Ltd.—4, Old Court House Street, Calcutta 1.

Carter Pooler & Co. Pvt. Ltd.—1, K. N. Dutta Road, Calcutta 36.

Castal Corporation Pvt. Ltd.—7, Old Court House Corner, Calcutta 1.

Coventry Spring & Engineering Co. Pvt. Ltd.—23, Ganesh Chandra Avente, Calcutta 13.

Crompton Greaves Ltd.—21, Rajendra Nath Mukherjee Road, Calcutta 1.

Damodar Enterprises Ltd.—1-A, Vansittart Row, Calcutta 1.

Davidson of India Pvt. Ltd.—10, Middleton Road, Calcutta 16.

Davy & United Engineering Co. Ltd.—6A, Middleton Street, Calcutta 16.

Delta Engineering & Foundry Works.—195A, Muktaram Babu Street, Calcutta 7. Dewrance Macneill & Co. Ltd.—2, Fairlie Place, Calcutta 1.
Diana Rolling Shutters & Engineering Works.—114,
Princep Street, Calcutta 13.

Dies & Tools Ltd.—11, Rajendra Nath Mukherjee Road, Calcutta 1.

D. K. Das & Co. Ltd.—Howrah Amta Road, Baltikari, Howrah.

Dorman Long & Co. Ltd.—32, Jagat Banerjee Ghat, Calcutta 2.

Eastern Commercial Corpn. Pvt. Ltd.—P-16, Bentinek Street, Calcutta 1.

Eastern Equipment & Sales Ltd.—24B, Park Street, Calcutta 16.

Electric Construction & Equipment Co. Ltd.—9, Kaliprasanna Singhee Road, Calcutta 2.

Ensign India Pvt. Ltd.—261/276/277/5/1, G. T. Road, North, Salkia, Howrah 6.

Eyre Smelting Pvt. Ltd.—5, Hide Road, Calcutta 43.

Fritz & Singh Pvt. Ltd.—227, Netaji Subhas Ch. Bose Road, Calcutta 47.

Godrej & Boyce Mfg. Co. Ltd.—23A, N. S. Road, Calcutta 1.

Golden Steel Corporation Pvt. Ltd.—64, G. T. Road, Lillooah, Howrah.

Genterman Peipers (I) Ltd.—Mitter House, 71, Ganesh Chandra Avenue, Calcutta.

Goodman & Co. (I) Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.

Graphite India Ltd.—14, Netaji Subhas Road, Calcutta 1.
Grant James Pvt. Ltd.—11, Hungerford Street, Calcutta 16.

Greaves Cotton & Crompton Parkinson Pvt. Ltd.—171/1, ALC Road, Calcutta 14.

Greaves Foseco Ltd.—Taratalla Road, Calcutta 53.

Gresham & Craven of India Pvt. Ltd.—22, Gobra Road, South Entally, Calcutta 14.

Guest, Keen, Williams Ltd.—7, Belvedere Court, Calcutta 27.

Head Wrightson India Ltd.—6A, Middleton Street, Calcutta 16.

Heatly & Gresham Ltd.—31, Chittaranjan Avenue, Calcutta 12.

Hein Lehmann (India) Ltd.—16, Hare Street, Calcutta 1.
 Hind Dye Casting Pvt. Ltd.—P23-24, Radha Bazar Street, Calcutta 1.

Hind Galvanizing & Engg. Co. Pvt. Ltd.—11, Goho Road, Howrah.

Hind Tin Industries.—107A, Raja Dinendra Street, Calcutta 6.

Hindustan Development Corpn. Ltd.—27, Sir R. N. Mukherjee Road, Calcutta 1.

Hindusthan Gas & Industries Ltd.—36, Ganesh Chandra Avenue, Calcutta 13.

Hindustan General Trading Co. Pvt. Ltd.—208, Mahatma Gandhi Road, Calcutta 7.

Hindusthan Iron & Steel Co.—8, Rajendra Deb Road, Calcutta 7.

Hoare Miller & Co. Ltd.-5, Fairlie Place, Calcutta 1.

Holman-Climax Manufacturing Ltd.—Chartered Bank Bldgs., Calcutta 1.

Hooghly Docking & Engineering Co. Ltd.—12, Mission Row, Calcutta 1.

Hope's Metal Windows India Ltd.—21, Netaji Subhas Road, Calcutta 1.

Imperial Engineering Works.—122, Belilios Road, Howrah,

India Hard Metals Pvt. Ltd.-58, Motilal Gupta Road, Calcutta 8.

India Industrial Works Pvt. Ltd.-55/1, Dharamtolla Road, Salkia, Howrah.

Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta 1. Indian Mechanisation & Allied Products Ltd.-6, Hastings Street, Calcutta 1.

Indian Metal Industries.—9, Bonfield Lane, Calcutta 1. Indian National Diesel Engine Co. Ltd.-31, Chowrirghee

Road, Calcutta 16.

Indian Oxygen Ltd.—Oxygen House, P-34, Taratalla Road, Calcutta 53.

Indian Pin Mfg. Co. Pvt. Ltd.-14/1/B, Ezra Street, Calcutta 1.

Indian Standard Wagon Co. Ltd.-12, Mission Row, Calcutta 1.

Indo Japan Steels Ltd.-11, Government Place East, Calcutta 1.

Indo-Japanese Industries Ltd.-15, Dharamtolla Street, Calcutta 13.

Industrial Containers Ltd. -21, Netaji Subhas Road, Calcutta 1.

Industrial Engg. & Construction Co.—16, Canning Street, Calcutta.

Industrial Plants Ltd.-36, Ganesh Chandra Avenue, Calcutta 13.

International Combustion (India) Pvt. Ltd.—101, Park Street, Calcutta 16.

James Warren & Co. (India) Ltd.-31, Chowringhee Road, Calcutta 16.

Jay Engineering Works Ltd.—Prince Anwarshah Road,

Jessop & Co. Ltd.—63, Netaji Subhas Road, Calcutta 1. Jewell Filter Co. Ltd.—28, C. R. Avenue Road, Calcutta 12. Jindal India Pvt. Ltd.—161/1, Mahatma Gandhi Road,

Calcutta 7. J. J. H. Industries Pvt. Ltd .- 9, Transport Depot Road, Calcutta 27.

K. T. Steel Industries Pvt. Ltd.—20, Maharshi Debendra Road, Calcutta 7.

Kamani Engineering Corpn. Ltd.-6/2, Moura Street, Calcutta 16.

Kesoram Engineering Industries.-6, Little Russel Street, Calcutta 16.

Krabs (India) Pvt. Ltd.—1, Kushthia Road, Calcutta 39. Krishnalal Thirani & Co. Ltd.—125, B. T. Road, Calcutta 35.

Kuljian Corporation (India) Pvt. Ltd. -24B, Park Street, Calcutta 16.

Kumar Narayan Pvt. Ltd.-28, Southern Avenue, Calcutta 26.

Lagan Jute Machinery Co. Pvt. Ltd.-24B, Park Street, Calcutta 16.

Lynx Machinery Ltd.—23/A, N. S. Road, Calcutta 1. Mahindra Engineering Co. Ltd.-5, Hide Road, Calcutta 43.

Marcandy Prasad Radhakrishna Prasad Pvt. Ltd.-65, B. T. Road, (North) Salkia, Howrah.

M. C. Mowjee & Co. Pvt. Ltd.—46, Ezra Street, Calcutta 1. Marshall Sons & Co. (India) Ltd.—33-1, Netaji Subhas Road, Calcutta 1.

Martin Burn Ltd.—12, Mission Row, Calcutta 1.

Metal Box Co. of India Ltd.—Barlow House, Chowringhee Road, Calcutta 20.

Metal Craft Corporation.—32, Cossipore Road, Calcutta 2. Metal Engineering Industries .- India Exchange, Calcutta 1.

Metal Perforation Pvt. Ltd.-177/1, Dum Dum Road. Calcutta.

Metal Press Works Ltd.—156, Victoria Road, Baranagar, Calcutta 36. Metal Products & Eng. Co.—124, Mahatma Gandhi Road.

Calcutta 7. Metro Industrial Works .- 94, Baburam Ghosh Road.

Tollygunge, Calcutta 40. Metropolitan Enterprises Pvt. Ltd.—28, B. T. Road, Calcutta 2.

Mine Safety Appliances Ltd.—Suite No. 2, Fourth Floor, 9, Sayed Amir Ali Avenue, Calcutta 17.

Molins of India Ltd.—1C, Middleton Row, Calcutta 16.

Mukand Iron & Steel Co. Ltd.—3A, Chowringhee Place,

Calcutta 13.

National Iron & Steel Co. Ltd.-51, Stephen House, 4, Dalhousie Square (East), Calcutta.

National Steel Corporation Ltd.-138, BRBB Road, Calcutta 1.

New Allenbury Works.—62, Hazra Road, Calcutta 19.

New Satgram Engineering Works.-F-2, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Ofu-Lynx Ltd .- P-43 and 44, Block 'H', New Alipore, Calcutta 53.

Orient General Industries Ltd .- 6, Ghore Bibi Lane, Calcutta 11.

Orient Industrial Engg. Co. Pvt. Ltd.-P-16, Kalakar Street, Calcutta 7.

Oriental Metal Inds. Pvt. Ltd.-67, BBG Street, Calcutta 12.

Otis Elevator Co. (India) Ltd .- 1, Middleton Street, Calcutta 16.

Panama Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1. Parry & Co. Ltd.—32, Chowringhee, Calcutta 16.

Paterson Engineering Co. (India) Pvt. Ltd.—28, Chittaranjan Avenue, Calcutta 12.

Primacons.—20A, Camac Street, Calcutta 16.

Raja Industrial Corpn. Pvt. Ltd.—Olympia House, 18, Ganesh Chandra Avenue, Calcutta 13.

Ramkrishna Iron Works Pvt. Ltd.—56, Sri Ramkrishna Mandir Path, North Bantra, Howrah.

R. C. Engineering Works.—96/98/1, Narasingha Dutta Road, Howrah.

Reckitt & Colman of India Ltd.—41, Chowringhee Road, Calcutta 16.

Robert Hudson (I) Ltd.—12, Mission Row, Calcutta 1. Shalimar Industries Pvt. Ltd.-25, Ganesh Chandra Avenue, Calcutta 13.

Shanker Industries Ltd.—192, Cross Street, Calcutta 7. Ship Repairers Ltd.—P9, Taratalla Road, Calcutta 24.

Simplex Concrete Piles (India) Pvt. Ltd.—"Simplex House", Transport Depot Road, Calcutta 27.

Shree Engineering Products Ltd.—21-A, Canning Street, Calcutta 1.

Shree Laxmi Industries.—46, Strand Road, Calcutta 7. SIBCO Industries Pvt. Ltd.—134/1, Mahatma Gandhi Road, Calcutta 7.

S. K. B. Industries.—140-B, Dharamtola Street, Calcutta 13.

Special Engineering Services Pvt. Ltd.-16, Cossipore Road, Calcutta 2.

Soorajmull Baijnath Inds. Pvt. Ltd.—138, Canning Street, Calcutta 1.

Spence Ltd.—P-38, Mission Row Extension, Calcutta 13. S. P. Manufacturing Co.—22, Brabourne Road, Calcutta 1.

Spinning Accessories Pvt. Ltd.—Laha Paint House, 7, Chittaranjan Avenue, Calcutta 13.

Spinwell Pvt. Ltd.—6, Nawab Dilarjang Road, Cossipore, Calcutta 2.

Steel & Allied Products Ltd.—2/1, Hussain Shah Road, Calcutta 23.

Stewarts & Lloyds of India Ltd.—41, Chowringhee Road, Calcutta 16.

Stone, J. & Co. I. Pvt. Ltd.—6, Taratalla Road, Calcutta 53.

Tatanagar Foundry Co. Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta 1.

Tata Iron & Steel Co. Ltd.—23-B, Netaji Subhas Road, Calcutta 1.

Teamco Pvt. Ltd.—188, Manicktola Main Road, Calcutta 54.

Technic (India).-7, Swallow Lane, Calcutta 1.

Textile Machinery Corpn., Ltd.—Belgharia, Calcutta 56.

Texwell Pvt. Ltd.—28, B. T. Road, Calcutta 2.

Thomas Mouget & Co. (India) Ltd.—15, Brabourne Road, Calcutta 1.

Tinplate Co. of India Pvt. Ltd.—4, Bankshall Street, Calcutta 1.

United Commercial Industries Co. Pvt. Ltd.—192, Cross Street, Calcutta.

United Engineering (Eastern) Corpn.—22, BRBB Road, Calcutta 1.

United Indian Engineers Pvt. Ltd.—1-B, Convent Road, Calcutta 14.

Usha Telehoist Ltd.—14, Princep Street, Calcutta 13.

Variety Industrial Works Pvt. Ltd.—P-16, Kalakar Street, Calcutta 7.

Vijay Shree Commercial Co. Pvt. Ltd.—23-A, Netaji Subhas Road, Calcutta I.

Vinar Ltd.—2A, Theatre Road, Calcutta 16.

Vikrama Engineering Pvt. Ltd.—2, Wellesley Place, Calcutta 1.

Wesman Engg. Co. Pvt. Ltd.—1/2, Allenby Road, Calcutta 20.

Western India Erectors Pvt. Ltd.—20, N. Subhas Road, Calcutta 1.

Wolverhampton Iron & Steel Co.—137, BRBB Road, Calcutta I.

## **FERTILISERS**

Assam Bengal Fertilisers Syndicate.—15-A, Clive Row, Calcutta 1.

Assam Fertilisers Pvt. Ltd.—12, Burdwan Road, Calcutta. Associated Industries (Assam) Ltd.—18, Netaji Subhas Road, Calcutta 1.

A. Talukdar & Co. (Fertilisers) Pvt. Ltd.—15, Clive Row, Calcutta 1.

B. C. Paul & Co.—18, Netaji Subhas Road, Calcutta 1. Beegos Manure Works.—21, Barwaritola Road, Calcutta 10.

Bhagirathi Fertiliser Co.—122-A, Maharshi Debendra Road, Calcutta 5.

Brahmaputra Fertilisers & Distributors Pvt. Ltd.—2, Church Lane, Calcutta.

Harshad Ray Pvt. Ltd.—23, Brabourne Road, Calcutta 1. Imperial Chemical Industries (I) Pvt. Ltd.—18, Strand Road, Calcutta 1.

Jalan Industries Pvt. Ltd.—62, Ballygunge Circular Road, Calcutta 19.

Jardine Henderson Ltd.-4, Clive Row, Calcutta 1.

Jay Shree Chemicals & Fertilisers,—India Exchange, Calcutta 1.

Khaitan Sons & Co. (Manure) Ltd.—26, Chittaranjan Avenue, Calcutta 12.

Kuljian Corporation (India) Pvt. Ltd.—24, Park Street, Calcutta 16.

Phosphate Co. Ltd.—14, Netaji Subhas Road, Calcutta 1. R. C. Mitter & Sons.—54, Ramakanto Bose Street, Calcutta 3.

R. N. Chatterjee & Co.—135, Canning Street, Calcutta 1. Shaw Wallace & Co. Ltd.—4/5, Banshall Street, Calcutta 1.

#### FILTER AND FILTER INSTALLATIONS

Calcutta Filter Mfg. Co.—62/1A, Netaji Subhas Road, Calcutta 1.

Crystal Filter Co.—33/1/1, Natabar Paul Lane, Howrah. Fritz & Singh Pvt. Ltd.—227, N. S. C. Bose Road, Calcutta 47.

Gour Mohan Das & Co.—233, Old China Bazar Street, Calcutta 1.

India Potteries Ltd.—91, Dharamtala Street, Calcutta 13.
 Jewell Filter Co.—28, Chittaranjan Avenue, Calcutta 12.
 John Fowler (India) Ltd.—136-A, Rash Behari Avenue, Calcutta 29.

S. M. Dey & Co.—51/3D, Strand Road, Calcutta 7. Sparkler Mfg. Co.—35, Chittaranjan Avenue, Calcutta 12.

### FIRE FIGHTING EQUIPMENTS

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chunder Avenue, Calcutta 13.

Fire & Safety Equipments.—40, Strand Road, Calcutta 1.

Minimax Ltd.—Mercantile Bldgs., Lall Bazar Street,
Calcutta 1.

Roberts McLean & Co. Ltd.—27-B, Camac Street, Calcutta 16.

Royson Fire Engineers Pvt. Ltd.—55, Gariahat Road, Calcutta 19.

Sur Ensmel & Stamping Works Pvt. Ltd.—24, Middle Road, Entally, Calcutta 14.

Technico (I).—3, B. B. Ganguli Street, Calcutta 12.

William Jacks & Co. I. Pvt. Ltd.—16, N. Subhas Road, Calcutta 1.

Zenith Industrial Equipments.—14/1/1A, Jackson Lane, Calcutta 1.

#### **GLASS & GLASSWARE**

Annapurna Glass Works Pvt. Ltd.—3C, Mullick Road, Jadavpur, Calcutta 32.

Ashok Glass Works.—9, Ezra Street, Calcutta 1.

Belur Glass Works Ltd.—203/1, Mahatma Gandhi Road, Calcutta 7.

Bengal Electric Lamp Works Ltd.—126, Mollapara Road, Jadavpur Colony, Calcutta 32.

Bharat Glass Works Pvt. Ltd.—Belghurria, Calcutta 56. B. K. Shaw Industries Pvt. Ltd.—13/B, Dun Dun Road, Calcutta 30.

Calcutta Glass & Silicate Works (1936) Pvt. Ltd.—9, Kundu Lane, Belgachia, Calcutta 37.

D. P. S. Glass Industries.—Rabindrapalli, Nimta, Birati, Calcutta 49.

Fotic Lall Seal & Sons Pvt. Ltd.—10, Swallow Lane, Calcutta 1.

Geeta Glass Works Pvt. Ltd.—59, Bahir Sura Road, Calcutta 10.

Glass Syndicate Pvt. Ltd.—30/1, Grey Street, Calcutta 5.

Hindustan Glass Mfg. Co. Ltd.—2, Wellesley Place, Calcutta 1.

Hindusthan Pilkington Glass Works Ltd.—Hindusthan Bldgs., 4, Chittaranjan Avenue, Calcutta 13.

Hindustan National Glass Manufacturing Co. Ltd.—2, Wellesley Place, Calcutta 1.

Hindustan Safety Glass Works Pvt. Ltd.—2, St. George Gate Road, Calcutta 22.

Hirji & Co. Pvt. Ltd.—20, Pollock Street, Calcutta 1.

Indo Asahi Glass Co. Ltd.—30, Chittaranjan Avenue, Calcutta 12.

Krishna Silicate & Glass Works Ltd.—Raja S. C. Mullick Road, Calcutta 32.

Metro Glass Works Pvt. Ltd.—20, Netaji Subhas Road, Calcutta 1.

New India Glass Works (Calcutta) Pvt. Ltd.—7, Rawdon Street, Calcutta 16.

Premier Scientific Glass Co.—26/2A, Prasanna Kumar Tagore Street, Calcutta 6.

Scientific Glass Works.—35, Gopal Chatterjee Road, Calcutta 2.

Scientific Indian Glass Co. Pvt. Ltd.—98, Christopher Road, Calcutta 14.

Shiva Glass Works Co. Ltd. (Factory No. 1).—Sethia House, 23/24, Radhabazar Street, Calcutta 1.

Shree Govinddeo Glass Works Ltd.—9, Ezra Street, Calcutta I.

Somany Glass Works.—66, G. T. Road, Lillooah, Howrah. Victoria Glass Works Pvt. Ltd.—10, Clive Row, Calcutta 1. Window Glass Ltd.—B-5, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

#### HARDWARE MANUFACTURERS

Assam Bengal Hardwares Pvt. Ltd.—113, N. Subhas Road, Calcutta 7.

Bharat Hardware Industries.—14, N. Subhas Road, Calcutta 1.

C. D. Industries.—33, Dharamtolla Street, Calcutta 13.

Daw & Brothers.—14, Raja Woodmunt Street, Calcutta 1. Diamond Steel Corporation.—244, Upper Chitpore Road, Calcutta 3.

Gobindo Sheet Metal Works & Foundry.—210, M. Gandhi Road, Calcutta 7.

Golden Steel Corporation.—64, G. T. Road, Lillooah, Howrah.

Lahiri Architectural Industries Pvt. Ltd.—12/2, Clive Row, Calcutta.

M. C. Mowjee & Co.—46, Ezra Street, Calcutta 1.

Purushottam Ramji & Sons Pvt. Ltd.—12, Raja Woodmunt Street, Calcutta.

Rana Engg. & Foundry Works.—67-B, Netaji Subhas Road, Room No. 1, Calcutta 1.

Shanker Industries.—192, J. L. Bazaz Street, Calcutta 7.

## INK MANUFACTURERS

Bagchi, P. M. & Co. Ltd.—19, Gulu Ostagar Lane, Calcutta 6.

Chemproducts Co.—12, Tamer Lane, Calcutta 9.

Ganges Printing Ink Factory Ltd.—Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Gripex (India) Ltd.—C6, Gillander House, 8, Netaji Subhas Road, Calcutta 1.

Hooghly Ink Co. Pvt. Ltd.—67/A, Ballygunge Circular Road, Calcutta 19. J. B. A. Printing Inks Pvt. Ltd.—P-12/3, Taratalla Road, Calcutta 53.

Lily Chemical Works.—3, Ramkanta Sen Lane, Calcutta 4.

Mohan Trading Co.—11-A, Ramesh Dutta Street, Calcutta 6.

Rainbow Industries Pvt. Ltd.—2/2A, Armenian Street, Calcutta 1.

Rapidol Industries Co.—24-E, Sura 3rd Lane, Beliagatta, Calcutta 10.

Sulekha Works Ltd.—Sulekha Park, Calcutta 32.

Super Toilet & Chemical Co. Pvt. Ltd.—80, Cornwallis Street, Calcutta 6.

True Ink Mfg. Co.—79, R. A. K. Road, Calcutta 13. Unita Trading Co.—76, Acharya J. B. Road, Calcutta 14.

#### INSULATION

Anudyog.—24-A, Rai Bahadur Road, Calcutta 34. A. P. Banerjee & Co.—71-A, N. Subhas Road, Calcutta 1.

Dutt Bros. & Co.-34, N. Subhas Road, Calcutta 1.

Esarbi Enterprises.—12-A, N. Subhas Road, Calcutta 1. Industrial Minerals & Mill Stores Traders.—Mercantile Bldgs., Lall Bazar Street, Calcutta 1.

Lloyd Insulations (India).—27-A, Camac Street, Calcutta 16.

Newkem Insulations (Calcutta).—4, Chandni Chowk Street, Calcutta 13.

## LEATHER & LEATHER PRODUCTS

Bata Shoe Co. Pvt. Ltd.—30, Shakespeare Sarani, Calcutta 17.

Bengal Mill Stores Co.—2, Kanai Seal Street, Calcutta 1.
Calcutta Tanneries (1944) Ltd.—96, G. R. Road, Calcutta 23.

E. B. Leather Mfg. Co.—76-A, Upper Circular Road, Calcutta 9.

Glace Kid (India) Pvt. Ltd.—75, Ganesh Chandra Avenue, Calcutta 13.

Hindustan Tannery.—129, South Tangra Road, Calcutta 15.

Industrial Leather & Rubber Works.—10, Canning Street, Calcutta 1.

Industrial Leathers Co.—3-1, Indra Roy Road, Calcutta 25.

Jardine Henderson Ltd.-4, Clive Row, Calcutta 1.

J. N. Bhattacharjee & Co.—24, N. Subhas Road, Calcutta 1.

Kohinoor Leather Co. Pvt. Ltd.—14, Bentinck Street,
Calcutta 1.

Leather Chemicals & Industries Ltd.—9, Muraripukur Road, Calcutta 4.

National Chamois Works.—6, Mangoe Lane, Calcutta 1.
National Tannery Co. Ltd.—Canal South Road, Calcutta 15.

U. P. Leather Co.—10, Sreenath Babu Lane, Calcutta 12. Victory Leather Works.—32, Dalhous's Square (East), Calcutta 1.

# LOCK AND SAFE MANUFACTURERS & DEALERS

Bengal Iron Safe & Lock Works.—120, Sovabazar Street, Calcutta 5.

Bombay Safe & Steel Works Pvt. Ltd.—56, N. Subhas Bose Road, Calcutta 1.

Das Lock Safe Mfg. Co. Ltd.—77/B, Rashbehari Avenue, Calcutta 19.

De' Lock Industries.—31, Haripada Dutta Lane, Calcutta 33.

Economic Tanks Supply Co.—100, M. G. Road, Calcutta 7. Godrej & Boyce Mfg. Co. Pvt. Ltd.—23A, N. S. Road, Calcutta 1.

Orient Safe & Cabinet Mfg. Co. Pvt. Ltd.—133, Canning Street, Calcutta 1.

Sanial & Co.—22, BRBB Road, Calcutta 1.

W. Bengal Lock Mfg. Co.-5, N. Subhas Road, Calcutta 1.

## MACHINE TOOLS

Alfred Herbert (India) Pvt. Ltd.—13-3, Strand Road, Calcutta 1.

Armstrong Smith Ltd.—Faraday House, P-17, Mission Row Extn., Calcutta 1.

Associated British Machine Tool Markers (India) Ltd.—21, Camac Street, Calcutta 16.

Bengal Iron & Steel Works.—8, Canning Street, Calcutta 1.

Bengal Tools Ltd.—Todi Mansion, P-15, India Exchange Place Extn., Calcutta 1.

Bharatiya Machine Tools Co. Ltd.—370, Upper Chitpur Road, Calcutta 6.

Biyani & Sons Pvt. Ltd.—25, Ganesh Chandra Avenue, Calcutta 13.

B. S. Machine Tools Corporation.—435, Jessore Road, Calcutta 28.

Calcutta Machine Tools Corpn.—10, Clive Row, Calcutta 1.

Dutson Engineering Corporation Pvt. Ltd.—5, Mahendra Chandra Garden Road, Dum Dum, Calcutta 30.

Eastern Machinery Corporation.—28, Strand Road, Calcutta 1.

Engel India Machines & Tools Ltd.—6, Old P. O. Street, Calcutta 1.

Gupta Machine Tools Pvt. Ltd.—50-B, Gariahat Road, Calcutta 19.

Heatly & Gresham Ltd.—31, Chittaranjan Avenue, Calcutta 7.

Hindusthan Machine Tools Corporation.—35, Netaji Subhas Road, Calcutta.

India Machinery Co. Ltd.—Dasnagar House, Calcutta 5.
Industrial Gases Ltd.—15, Ganesh Chandra Avenue, Calcutta 13.

Industrial Plants Ltd.—Industry House, 10, Camac Street, Calcutta 16.

Jayems Engineering Co.—22, Brabourne Road, Calcutta 1. K. R. Paul & Co.—127, Belilios Road, Howrah.

Luxmi Engineering Co. Pvt. Ltd.—123, Narasingha Dutta Road, Howrah.

Machine Tools (I) Pvt. Ltd.—Wimet House, Russell Street, Calcutta 16.

Machine Tools (Sales) India.—35, Chittaranjan Avenue, Calcutta 12.

Machine Tools Traders.—25, Ganesh Ch. Avenue, Calgutta 13.

Metal & Alloy Corpn.—38A, Belgachia Road, Calcutta 37.
 Modern India Machine Tools Pvt. Ltd.—18/1/6, Canal West Road, Calcutta 9.

National Machine Tools Co.—10-10, Brindaban Mullick Lane, Howrah.

New India Tools Mfg. Co.—Singhi Park, 48, Gariahat Road, Calcutta 19.

Noakhali Machine Tools Ltd.—1, Middleton Street, Calcutta 1.

Calcutta 1.
Power Tools & Appliances Co.—2, Dalhousie Square
East, Calcutta 1.

Prafulla Narayan Engineering Co.—P-14, Mission Row Extn., Calcutta 1.

0

Reliable Machine Tools Co.—31, Canning Street, Calcutta 1. Republic Traders Corpn.—25, R. N. Mukherjee Road, Calcutta 1.

Salkia Industrial Works.—195-1, Grand Trunk Road, 25, R. N. Mukherjee Road, Howrah.

Small Tools Mfg. Co. of India Ltd.—Faraday House, P/17, Mission Row Extension, Calcutta 13.

Super Crafts Pvt. Ltd.—163, Kasba Road, Calcutta 42.

Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.

Vulcan Machine & Tool Co.—218, Manicktalla Mani Road, Calcutta 11.

William Jacks & Co. India P. Ltd.—16, Netaji Subhas Road, Calcutta 1.

#### MACHINERY

Bengal Hardware & Tin Seal Manufacturing Co.—70, Netaji Subhas Road, Calcutta 1.

Bengal Machinery Co. Pvt. Ltd.—9A, New Tangra Road, Calcutta 46.

Calcutta Engineering & Mfg. Co.—108-1, Benaras Road, Howrah 6.

Eastern Industrial Corporation.—142/1, Radhabazar Street, Calcutta 1.

Howrah City Engineering Co. Pvt. Ltd.—Deshpran Sasmal Road, Howrah 1.

India Machinery Co. Ltd.—29, Strand Road, Calcutta 1.
Kanubhai Engineers Pvt. Ltd.—3, Mangole Lane, Calcutta 1.

KCB Cranes & Heavy Machines Pvt. Ltd.—30, Ganesh Ch. Avenue, Calcutta 13.

Kusum Engineering Co. Ltd.—25, Swallow Lane, Calcutta 1.

Machinery Manufacturers Corpn. Ltd.—31, Chowringhee Road, Calcutta 16.

Modern India Machine Tools Pvt. Ltd.—18-1-6, Canal West Road, Calcutta 9.

Motor & Machinery Manufacturers Ltd.—31, Chittaranjan Avenue, Calcutta 12. Oriental Electrical & Engg. Co. Ltd.—1 & 2, Old Court

House Corner, Calcutta 1.
Precision Industries Pvt. Ltd.—Pashupati Bhattacharya

Road, Behala, Calcutta 41.

Process Machinery & Equipments Pvt. Ltd.—144, Ashutosh Mukherjee Road, Calcutta 25.

Rockfield Corporation.—40B, Princep Street, Calcutta 13.
Small Machineries Manufacturing Co.—22, R. G. Kar
Road, Calcutta 4.

Standard Machinery Co.—67-B, Netaji Subhas Road, Calcutta 1.

Vulcan Machine & Tool Co.—218, Manicktalla Main Road, Calcutta 11.

Wire Machinery Mfg. Corpn. Pvt. Ltd.—1/A, Vansittart Row, Calcutta 1.

# MATERIAL AND MECHANICAL HANDLING EQUIPMENTS

Boyd Smiths Pvt. Ltd.—Gillander House, N. Subhas Road, Calcutta 1.

Escal India Pvt. Ltd.—P-34, C. I. T. Road, Calcutta 14. Hindustan Sheet & Metal Co. Pvt. Ltd.—P-34, C. I. T. Road, Calcutta 14.

Mechanical Handling Equipments Pvt. Ltd.—33, C. R. Avenue, Calcutta 12.

Meson Engineering Works.—6, Canal Road, Calcutta 53.

Nav Bharat Vanijaya Ltd.—18, Rabindra Sarani, Calcutta 1.

United Indian Engineers Pvt. Ltd.—1/B, Convent Road, Calcutta 14.

Vishwa Engg. Works.—62A, Hazra Road, Calcutta 19.

#### **METALLIZING**

Calcutta Engineering Works.—9A, Dalhousie Square East, Calcutta 1.

Calcutta Metallizing Co.—Post Box No. 2354, Calcutta 1.
Eastern Metallizing Co. Pvt. Ltd.—2, India Exchange Place, Calcutta 1.

Industrial Accessories Supply Corpn.—47, Kalidas Patitundi Lane, Calcutta 26.

Metallizing Corpn. Pvt. Ltd.—9, Waterloo Street, Calcutta 1.

National Metallizing & Engg. Co.—8, R. N. Mookerji Road, Calcutta 1.

Western India Trading Co.-2, Mission Row, Calcutta 1.

## **NON-FERROUS METALS**

Aluminium Corpn. of India Ltd.—7, Council House Street, Calcutta 1.

Ashok Metal Industries Ltd.—157, Netaji Subhas Road, Calcutta 1.

Bengal Ingot Co. Ltd.—5, Hide Road, Calcutta 43.

Binani Metal Works (Pvt.) Ltd.—38, Strand Road, Calcutta 1.

British Metal Corpn. (I) Pvt. Ltd.—22, Chittaranjan Avenue, Calcutta 13.

Eyre Smelting Pvt. Ltd.—5, Hide Road, Kidderpore, Calcutta 43.

Ganga Metal Refining Co. Ltd.—43, Strand Road, Calcutta 7.

Hindustan Metal Works.—48, Dum Dum Road, Calcutta 30.

Indian Aluminium Co. Ltd.—1, Middleton Street, Calcutta 16.

Indian Cable Co. Ltd.—9, Hare Street, Calcutta 1.

Indian Oxygen Ltd.—48/1, Diamond Harbour Road, Calcutta 27.

Jai Tube Mfg. Co.—75, N. Subhas Road, Calcutta 1. Kamani Metals & Alloys Ltd.—6/2, Moira Street, Cal-

Kedia Commercial Co.—P3, Kalakar Street, Calcutta 7.

Metal Corpn. of India Ltd.—135, Canning Street, Calcutta 1.

Metals & Ores Co.—Transport Depot Road, Alipore, Calcutta 27.

National Pipes & Tubes Co. Ltd.—2, Hare Street, Calcutta 1.

Non-Ferrous Metal Industries Pvt. Ltd.—42/1, Strand Road, Calcutta 7.

Orient Traders.-42/1, Strand Road, Calcutta 7.

Robsan & Co. Pvt. Ltd.—P-14, Mission Row Fxtn., Calcutta 1.

Saru Smelting & Refining Corpn. Pvt. Ltd.—161/1, Harison Road, Calcutta 7.

# PAINTS, COLOURS, ENAMELS & VARNISHES ETC.

Aditya Paint Colour & Varnish Co.—110, Narkeldanga Main Road, Calcutta 11.

Asiatic Paints & Chemicals.—3, Commercial Building, Netaji Subhas Road, Calcutta 1.

Associated Pigments Ltd.—14, Netaji Subhas Road, Calcutta 1.

Aukhoy Kumar Laha.—1, Dharamtolla Street, Calcutta 1. Bengal Paint Supply Co.—16, Bonfield Lane, Calcutta 1. British Paints (India) Ltd.—32, Chowringhee Road, Calcutta 16.

Century Paint & Varnish Works.—8/3, Canal Street, Calcutta 14.

Chandi Charan Nayak Pvt. Ltd.—124/1, Bowbazar Street, Calcutta 12.

Eagle Paint & Pigment (Industries), Pvt. Ltd.—135, BRBB Road, Calcutta 1.

East India Paint & Chemical Works Ltd.—21, Gopal Chandra Bose Lane, Calcutta 50.

Empire Chemical Co.-5, Kustia Road, Calcutta 39.

Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta 1. Hindustan Paint, Colour and Varnish Co.—Strand Warehouse, Calcutta 1.

Hindustan Paint Supply Co.—190, Lower Circular Road, Calcutta 17.

Hoyle's Paints Ltd.—18, Rabindra Sarani, Calcutta 1. India Paint, Colour & Varnish Co. Ltd.—14, Netaji

Subhas Road, Calcutta 1.
International Chemical Industries.—52, Central Avenue

Road, Calcutta 32.

Jenson & Nicholson (India) Ltd.—225, Acharya Jagadish

Road, Calcutta 20. Leather Chemical & Industries Ltd.—9, Muraripukar

Road, Calcutta 4.

London Varnish & Enamel Co. Ltd.—112A, Trivoli Court, Calcutta 16.

Macfarlane & Co. Ltd.—18, Radhanath Chowdhury Road, Calcutta 15.

Murarka Paint & Varnish Works Pvt. Ltd.—4E, Dalhousie Square East, Calcutta 1.

Napier Paint Works Pvt. Ltd.—3, Moti Sil Street, Calcutta 13.

Narayan Chowdhury Bros. Pvt. Ltd.—4, Jahura Bazar Lane, Calcutta 42.

N. Haldar & Co. Pvt. Ltd.—21/D, Sudhir Chatterjee Street, Calcutta 6.

Nilsin Co.—37, Armenian Street, Calcutta 1.

Olpherts Ltd.-Moti Sil Street, Calcutta 13.

Paints & Lacquers.—11B, Surendranath Banerjee Road, Calcutta 13.

P. C. Chanda & Co. Ltd.—P-2, Mission Row Extension, Calcutta 1.

Pigments & Chemical Industries Pvt. Ltd.—32, Armenian Street, Calcutta 1.

Protective Lacquer Industries.—46, Jamunalal Bazar Street, Calcutta 7.

Ruby Paint & Varnish Works Pvt. Ltd.—96, Mahatma Gandhi Road, Calcutta 7.

Salkia Paint Mfg. Co.—40/1, Strand Road, Calcutta 1. Shalimar Paints Ltd.—13, Camac Street, Calcutta 16.

Solar Paint & Varnish Mfg. Co.—Barrackpore Trunk Road, Belgharia P.O., 24 Parganas Dist.

Tropic Paint Works Pvt. Ltd.—7, Chiataranjan Avenue, Calcutta 13.

Waxpol Industries Ltd.—16-A, Lake View Road, Calcutta 29.

Xanthic Industries.—28, Strand Road, Calcutta 1.

## PAPER MILLS

Ballarpur Paper & Straw Board Mills Ltc —25, Brabourne Road, Calcutta 1.

Bengal Paper Mill Co., Ltd.—14, Netaji Subhas Road, Calcutta 1. Eastend Paper Industries Ltd.—32-A, Brabourne Road, Calcutta 1.

Eastern Paper Mills Ltd.—2, Dakshindari Road, Calcutta 48.

Himalay Paper & Board Mills Pvt. Ltd.—20, Seven Tanks Lane, Calcutta 30.

Indian Cardboard Industries Ltd.—18, Netaji Subhas Road, Calcutta 1.

India Paper Pulp Co., Ltd.—8, Clive Row, Calcutta 1. J. K. Paper Mills.—2, Mangoe Lane, Calcutta.

Orient Paper Mills Ltd.—15, India Exchange Place, Calcutta 1.

Rohtas Industries Ltd.—11, Clive Row, Calcutta 1.

Shree Gopal Paper Mills Ltd.—25, Brabourne Road, Calcutta 1.

Sirpur Paper Mills Ltd.—15, India Exchange Place, Calcutta 1.

Star Paper Mills Ltd.—27, Brabourne Road, Calcutta. Straw Products Ltd.—18, Rabindra Sarani, Calcutta 1. Titaghur Paper Mills Co. Ltd.—Chartered Bank Buildings,

Titaghur Paper Mills Co. Ltd.—Chartered Bank Buildings, Calcutta 1. Union Paper & Board Mills Ltd.—18, Netaji Subhas

Road, Calcutta 7.

#### PAPER, PAPER BOARDS & PAPER PRODUCTS

Bengal Miscellany Ltd.—174, Manicktalla Main Road, Calcutta 11.

Bengal Paper Tube & Box Mfg. Co.—18, Park Street, Calcutta 16.

India Paper Corporation.—24, Brabourne Road, Calcutta 1.

Indian Cardboard Industries Ltd.—18, -N. S. Road, Calcutta 1.

Jindal Trading Co.—26, P. K. Tagore Street, Calcutta 6.
Kaushal International Traders (India).—Patel House,
5th Floor, 35, Ezra Street, Calcutta 1.

Mahabir Paper & Board Industries.—3, Canal Road, Tollygunge, Calcutta 33.

Paper Products Ltd.—7, Chittaranjan Avenue, Calcutta 13. Pioneer Paper & Pulp Ltd.—1/1, Umakanta Sen Lane, Paikpara, Calcutta 30.

Sunder Paper & Board Co.—13-A, Palit Street, Top Floor, Calcutta 19.

#### PIPES AND PIPE FITTINGS

Advance Engg. Corpn.—12B, Clive Row, Calcutta 1. Agarwal Hardware Industries Pvt. Ltd.—167, Chittaranjan Avenue, Calcutta 7.

American Pipe Co.—135, Brabourne Road, Calcutta 1. Aninchand Payare Lal.—135, Brabourne Road, Calcutta 1. Asia Pipe Traders.—1, Bonefield Lane, Calcutta 1. Asian Industries.—9, Upper Chitpur Road, Calcutta 7.

Bagri Iron Steel Co.—40/1, Shibtola Street, Calcutta 7.
Bengal Hardware Mart.—69-A, Netaji Subhas Road,
Calcutta 1.

Bengal Rolling Mills Ltd.—67-B. Netaji Subhas Road, Calcutta.

Bharat Iron & Steel Industry, 11/1 B. K. Paul Temple Road, Belur, Howrah.

Bharat Steel & Metal Industries.—14/2, Old China Bazar Street, Block, No. 169, Calcutta 1.

Calcutta Pipe Mgf. Co.—374, Upper Chitpur Road, Calcutta 7.

Castings Corporation India Pvt. Ltd.—45, Madhusudan Pal, Chowdhury Lane, Howrah 1.

Cyma Engineering Co.—223, Bellilios Road, Howrah.

D. C. De & Sons.—150, Narasingha Dutta Road, Howrah. Dev Brothers.—71-A, Netaji Subhas Road, Calcutta 1.

Great Eastern Mechanical Works Ltd.—Ichapore Road, Howrah.

Hindustan Industrial Co.—192, Janualal Bazar Street, Calcutta 7.

Howrah Engineering Concern Pvt. Ltd.—153/154, Madhusudan Balchowdhury Lane, Howrah.

Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta 1.
Indian Tube Co. Ltd.—41, Chowringhee Road, Calcutta 16.
International Pipe Works.—402, Upper Chitpur Road, Calcutta 7.

Jain Brothers.—29, Strand Road, Calcutta 1.

Kaiser Corporation.—135, Canning Street, Calcutta 1.

Kedar Engineering & Trading Co.—34, Strand Road, Calcutta 1.

Kesoram Spun Pipes & Foundries.—P-46/A, Radhabazar Lane, Calcutta I.

Laxmi Trading Co.-192, Cross Street, Calcutta 7.

Luxmi Engineering Co. Pvt. Ltd.—123, Narasingha Dutt Road, Howrah.

Machines Techno (Sales) Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1.

M. Chandra & Co.—12, Lower Chitpur Road, Calcutta 1. Metalo Engineering Works.—1, Bonefield Lane, Calcutta 1. Millman & Co.—24, N. Subhas Road, Calcutta 1.

National Pipes & Tubes Co. Ltd.—Nicco House, Hare Street, Calcutta 1.

National Pipe Bending Works.—3, Thakurdas Dutt 2nd Lane, Howrah.

Premier Iron and Steel Works Ltd.—North Bantra Belgachia Road, North, Howrah 5.

Ramkrishna Engineering Works.—132/A, A. M. Road, Calcutta 25.

Ramprasad Sagarmall.—34/2, Madhusudhan Pal Chowdhury Lane, Howrah 1.

Satish Chandra Karuri & Sons.—10-6, Brindabon Mulick Lane, Howrah 1.

S. Abbas & Co.-12-B, Clive Row, Calcutta 1.

Shree Ambica Iron Works.—83, Chakpara Road, Howrah 1.

Shree Dhakatia Industries,—138, Canning Street, Calcutta 1.

Shree Hanuman Steel Works, 21B, Canning Street, Calcutta 1.

Shree Luxmi Industries.—46, Strand Road, Calcutta 1.

Spun Casting & Engg. Co. Pvt. Ltd.—77/5, Banaras Road, Salkia, Howrah.

Tatanagar Foundry Co. Ltd.—4, Dalhousie Square East, Calcutta 1.

## PLASTIC PRODUCTS MANUFACTURERS

Ajanta Plastic Pvt. Ltd.—2, Kailash Bose Road, Calcutta 6.

Allied Resins & Chemicals Co. Ltd.—10/1, Elgin Road, Calcutta 20.

Ashok Plastics Pvt. Ltd.—116, BRBB Road, Calcutta 1.

Ashoke International Pvt. Ltd.—9, Rabindra Sarani,
Calcutta 1.

Asian Tools & Plastic Co., 1/4C, Khagendra Chatterjee Road, Calcutta 2.

Associated Plastic Corporation.—45/1, B. L. Shah Road, Calcutta 5. Atlas Industries Co.—Raja Rajkissen Street, Calcutta 6. Bajaj Industries Pvt. Ltd.—26/1, Brojodulal Street, Calcutta 6.

Bharat Industrial Corporation.—150/C, Ram Dulal Sircar Street, Calcutta 6.

Bihar Plastic Industries.—26, Rabindra Sarani, Calcutta 7. Binani Metal Works Pvt. Ltd.—38, Strand Road, Calcutta 1.

B. K. Plastic Industries, 33, Burtolla Street, Calcutta 7.
 Calcutta Plastic Works.—26, Rabindra Sarani, Calcutta 7.
 Caprihans (India) Pvt. Ltd.—8A, Rawdon Street, Calcutta 17.

Century Plastics Pvt. Ltd.—31, Biplabi Pulin Das Street, Calcutta 9.

Chemicals & Plastics (I) Ltd.—14/1B, Ezra Street, Calcutta 1.

Climax Plastic Udyog.—11, Pollock Street, Calcutta 1. Continental Plastic Works.—201-B, Mahatma Gandhi Road, Calcutta 7.

Crown Pen Industries.—90, Phears Lane, Calcutta 12. Dryden Pvt. Ltd.—23, Brabourne Road, Calcutta 1.

East Anglia Platics (India) Ltd.—13, Camac Street, Calcutta 16.

Emco General Industries.—P-16, New C.I.T. Road, Calcutta 12.

Engel India Machine & Tools Ltd.—6, Old Post Office Street, Calcutta 1.

Extrusions.—243, Chittaranjan Avenue, Calcutta 6.

General Extruders.—128, Hazra Road, Room No. 31, Calcutta 26.

Hind Plastic Works Ltd.—16, Pagevaputty Street, Calcutta 7.

Indar Plastic Works.—65A, Nimtolla Ghat Street, Calcutta 6.

Indian Plastic Moulding Co.—300, Bowbazar Street, Calcutta 12.

Industrial Plastic (India).—5, Russell Street, Calcutta 16.
Jaenbee Plastics.—221/1, Ballygunge Circular Road, Calcutta 19.

Jayshree Plastics Pvt. Ltd.—33, Burtolla Street, Calcutta 7.

K. N. Gupta & Co.—87, Khengraputty Street, Calcutta 7.
Madan & Co.—65-A, Nimtolla Ghat Street, Calcutta 6.

Mahabir Plastic Industries.—6, Canal Road, New Alipore, Calcutta 53.

National Moulding Co. Ltd.—26, Upper Chitpur Road, Calcutta 7.

Nav Bharat Plastic Udyog, 5/1, Clive Row, Calcutta 1. Oriental Traders.—12B, Lower Chitpur Road, Calcutta 1.

Orissa Plastics.—40, Strand Road, Room No. 13-A, Calcutta 1.

Peerless Plastics Industries Pvt. Ltd.—4, Upper Chitpur Road, Calcutta 7.

Pioneer Plastic Works Pvt. Ltd.—14/1B, Ezra Street, Calcutta 1.

Plastechnics.—25, Palit Street, Calcutta 19.

Plastic Corporation.—114, Princep Street, Calcutta 13.

Plastic Engineers.—95/2, Cossipore Road, Calcutta 2.

Plastic Enterprise, 38, Strand Road, Calcutta 1.

Plastic Craft Industries.—180, Mahatma Gandhi Road, Calcutta 7.

Plastics Moulders Pvt. Ltd.—38, Strand Road, Calcutta 1. Plastic Moulding & Allied Industries.—135, Park Street, Calcutta 17. Plasto-Iron (India) Ltd.—157, Jessore Road, Dum Dum, Calcutta 28.

Poly Craft Industries.—23, Rajendra Mullick Street, Calcutta 7.

Polymers (India) Pvt. Ltd.—10, Mall Road, Dum Dum, Calcutta 28.

Polythene Traders.—243, Chittaranjan Avenue, Calcutta 6.

Prachi Industries Pvt. Ltd.—Room No. 34, 4th Floor, 24, Netaji Subhas Road, Calcutta 1.

Radheshyam Plastic Industries.—65A, Nimtolla Ghat Street, Calcutta 6.

Ratan Plastics Pvt. Ltd.—43/1, Strand Road, Calcutta 1. Saigal Commercial Co.—1, Sun-Yet-Sen Street, Calcutta 1. Sree Prabhat Products.—99/B, Garpar Road, Calcutta 9. Shree Hind Trading Corporation.—P-36, India Exchange Place, Calcutta 1.

Shri Krishna Plastic Co.—7, Lyons Range, Calcutta 1. Synthetic Moulders Ltd.—5, Synagogue Street, Calcutta 1. Tekno Rubber & Plastic Works.—14, Chandni Chowk, Calcutta 13.

Teko Pen Industries.—90, Phears Lane, Calcutta 12.

Unique Plastic Industries.—4, Canal Road, New Alipore, Calcutta 53.

United Industries.—6, Canal Road, Tollygunge, Calcutta 33.

Universal Mculders.—4, Canal Road, New Alipore, Calcutta 53.

Vijay Plastic Industries.—2, Tarapa Ghat Road, Calcutta 3.

West Bengal Plastic (Pvt.) Ltd.—4, Duffers Lillooah, Howrah.

Western Plastic Company.—9, Gurusaday Road, Ballygunge, Calcutta 19.

#### **PUMPS & PUMPING SETS**

American Electricals and Pump Distributors.—4, Mission Row, Calcutta 1.

Asea United Traders & Industries Pvt. Ltd.—10-B, Kapalitola Lane, Calcutta 12.

Associated Electrical Industries (India) Pvt. Ltd.—13, Rajendra Nath Mukherjee Road, Calcutta 1.

Bengal Iron Works Pvt. Ltd.—65, Ganesh Ch. Avenue, Calcutta 13.

Bombay Engineering Works.—238, Bellilios Road, How-

British Electrical and Pumps Pvt. Ltd.—1/1B, Mission Row, Calcutta 1.

British Standard Pumps & Co.—35P/14, N. S. Road, Calcutta 1.

Century Engineering Co.—P-40, Mission Row Extn., Calcutta 13.

Continental Plant Machinery Co. Pvt. Ltd.—16, Hare Street, Calcutta 1.

East India Engg. & Agency Co.—63, Benaras Road, Howrah, Calcutta 1.

Ebrahimji Hassanbhoy & Sons.—30, Strand Road, Calcutta 1.

Electric Construction and Equipment Co. Ltd.—27/B, Camac Street, Calcutta 16.

Electrical & Mechanical Equipment Corpn.—17, Dass Lane, Calcutta 12.

Engineering Enterprise.—10-B, Kapalitola Lane, Calcutta 12.

F. Husain & Brothers.—28, Strand Road, Calcutta 1.

Great Eastern Foundry, Works.—76/12, Banaras Road, Howrah, Calcutta 1.

Hindustan Electric & Engg. Co.—Beadon Street, Calcutta 6.

Hindustan Machine Pumps.—17, Dass Lane, Calcutta 12. Howrah Light Casting Co. Pvt. Ltd.—213, M. Gandhi Road, Calcutta 7.

IMC-Vogel Industries Pvt. Ltd.—10/1, Princep Street, Calcutta 13.

International Combustion I. Pvt. Ltd.—101, Park Street, Calcutta 16.

Johnston Pumps India Ltd.—2, Fairlie Place, Calcutta 1. Kundlia Industrial Corporation.—23, Canning Street, Calcutta 7.

Laxmi Engineering Co. Pvt. Ltd.—123, Narsingha Dutt Road, Howrah.

Marshall, Sons & Co. Mfg.—33/1, Netaji Subhas Road, Calcutta 1.

Maya Engineering Work Pvt. Ltd.—200A, S. P. Mukherji Road, Calcutta 26.

M. N. Chatterji & Co.—P-48, Banaras Road, Howrah 5.
Motor & Pumps Syndicate.—2, Kapalitola Lane, Calcutta
12.

Natwarlall Pvt. Ltd.—24, Netaji Subhas Road, Calcutta 1. Power & Machinery India Ltd.—3, Mangoe Lane, Calcutta 1.

Precivac Engg. Co.-G.P.O. Box 544, Calcutta 1.

Republic Traders Corporation.—26, R. N. Mukherjee Road, Calcutta 1.

Roger Engineering Works.—23A, Netaji Subhas Road, Calcutta 1.

Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.

United Provinces Commercial Corpn.—4, Princep Street, Calcutta 13.

Varat Pump & Machinery Pvt. Ltd.—20, Netaji Subhas Road, Calcutta 1.

Venus Pump & Engg. Works.—40, Strand Road, Calcutta I.

Water Supply Specialists Pvt. Ltd.—Gujarat Mansion, Mission Row Extension, Calcutta 1.

Western India Industries Pvt. Ltd.—10, Clive Row, Calcutta 1.

William Jacks & Co. I. Pvt. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## RADIO MANUFACTURERS & DEALERS

Allied Radio Industries.—153A, Vivekananda Road, Calcutta.

Associated Electronics.—10, Prinsep Street, Calcutta 13. Bhatia Radio Corporation.—3, Saklat Place, Calcutta 13. Britannia Talking Machine Co. (Cal.).—184, Dharamtolla Street, Calcutta 13.

Calcutta Radio Service Pvt. Ltd.—34, Ganesh Chandra Avenue, Calcutta 13.

Central Radio Service Pvt. Ltd.—25/A, Chittaranjan Avenue, Calcutta 13.

Debsons Pvt. Ltd.—2, Madan Street, Calcutta 13.

Eastern Electric & Trading Co.—Hall Anderson Bldg., 31, Chowringhee Road, Calcutta 16.

Electronic Radio & Sound Agencies.—18, Chandni Chowk Street, Calcutta 13.

Flashlight (L) Ltd.—135, Princep Street, Calcutta 13.

General Radio & Appliance Ltd.—3, Madan Street, Calcutta 13.

General Radio Co.-6, Madan Street, Calcutta 13.

Hindustan General Electric Corpn. Ltd.—Thapar House, 25, Brabourne Road, Calcutta 1.

Hindustan Musical Products Ltd.—6/1, Akrur Dutt Lane, Calcutta 12.

India Radio Mfg. Co.—18, Chandni Chowk Street, Calcutta 13.

International Radio Emporium Pvt. Ltd.—3, Madan Street, Calcutta 13.

Modi Radio Co.-129/7, Harrison Road, Calcutta 7.

Philips India Ltd.—7, Justice Chandra Madhab Road, Calcutta 20.

Radio & Accessories (India) Pvt. Ltd.—3, Madan Street, Calcutta 13.

Radio Distributing Co.-1, C.R. Avenue, Calcutta 1.

Radios (India) Ltd.—Lindsay Street, Calcutta 16.

Senola Musical Products Co.—11, Esplanade East, Calcutta 1.

Singh Radio & Sound Engineering.—9, Chowringhee Road, Calcutta 13.

Southern Engineering Co., Ltd.—54, Bentinck Street, Calcutta 1.

Standard Radio & Winding House Pvt. Ltd.—1, Chandani Chowk Street, Calcutta 13.

Thunderson Electronics and National Instruments Pvt. Ltd.—13, Suren Sarkar Road, Calcutta 10.

United Agency Co.—18A, Syamaprasad Mukherjee Road, Calcutta.

Utility Radio Co.—82/3, B, Bidhan Sarani, Calcutta 16.

#### RAZOR BLADES

Harbans Lal Malhotra & Sons Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

National Razors & Blades Pvt. Ltd.— 35, Stephen House, 4, Dalhousie Square East, Calcutta 1.

Panama Pvt. Ltd.- 18, Netaji Subhas Road, Calcutta 1.

## ROLLING SHUTTERS

Bibhuti Bhusan Paul.—89, N. Subhas Road, Calcutta 1. Bihar Aluminium Works.—24, R. N. Mukerjee Road, Calcutta 1.

Calcutta Industries.—2, Kirtybash Mukherjee Road, Calcutta 4.

Chatterjee Engg. Co.—113, Dharamtola Street, Calcutta 13.

Commercial Medium Pvt. Ltd.—51, C. R. Avenue, Calcutta 12.

Debendra Nath Paul & Co.—32/2, Nirmal Chunder Street, Calcutta 12.

Dhariwal Rolling Shutters & Engg. Works.—109, Netaji Subhas Road, Calcutta I.

Diana Rolling Shutters & Engg. Works.—8, Stephen House, Dalhousie Sq. East, Calcutta 1.

M. P. Corporation.—54/1, Surjya Sen Street, Calcutta 9.

#### RUBBER GOODS

American Rubber Mfg. Co.—40, Strand Road, Calcutta 1.
Asian Industries.—27, Tollygunge Circular Road, Calcutta 53.

Asiatic Rubber Works Ltd.—54-10, Chingrihatta Road, Calcutta 15.

Associated Rubber & Plastic Works.—1, M. M. Ghosh Road, Calcutta 28. Bengal Waterproof Works (1940) Ltd.—41, Shakespeare Sarani, Calcutta 7.

Bharat Rubber Industries.—17, Paymental Garden Lane, Calcutta.

Bhattacharya Rubber Works Pvt. Ltd.—174, Jessore Road, Calcutta 28.

Calcutta Rubber Mfg. Co.—Narkeldanga Main Road, Calcutta 1.

Cosmos India Rubber Works Pvt. Ltd.—7, Waterloo Street, Calcutta 1.

Dunlop India Ltd.— Dunlop House, Free School Street, Calcutta 16.

D. Wren & Co.- 25, Swallow Lane, Calcutta 1.

East India Rubber Works Pvt. Ltd.—161, Chittaranjan Avenue, Calcutta 7.

Everest Rubber Works.—2, Kalibari Road, Dum Dum Junction, Calcutta 30.

Firestone Tyre & Rubber Co. of India Pvt. Ltd.—18, Camac Street, Calcutta 16.

Ganesh Commercial Co.—Ltd.—2, Miajan Lane, Tangra, Calcutta 46.

George Spencer Moulton & Co. (India) Ltd.—118/2, Explanade Mansion, Calcutta 1.

Goodyear India Ltd.—225, C. Acharya Road, Calcutta 20. Hind Rubber Works.—17, Bibi Bagan Lane, Calcutta 15.

Hindustan Rubber Works Ltd.—14, Ballygunge, Station Road, Calcutta 19.

Ind Com Ltd.-P-16, Kalakar Street, Calcutta 7.

India Rubber Goods Mfg. Co.—30-H-2, Canal East Road, Calcutta 11.

India Tyre and Rubber Co. Pvt. Ltd.—1, Waterloo Street, Calcutta 1.

Indian Rubber Manufacturers Ltd.—4, Lyons Range, Calcutta 1.

International Rubber Mfg. Co.—51, Radhanath Chowdhry Road, Calcutta 15.

Jai Bharat Industries.—32, Debendra Chandra De Road, Calcutta 15.

Kadar Rubber Manufacturing Co. Pvt. Ltd.—46-B, Shakespeare Sarani, Calcutta 16.

Kohinoor Rubber Works, Pvt. Ltd.—46/6, Canal East Road, Calcutta 11.

M. S. Rubber Co.—18/A, Manicktolla Street, Calcutta 11.
Modern Rubber Mfrs.—Pvt. Ltd.—12/1/B, Lindsay Street, Calcutta 16.

National Rubber Mfrs. Ltd.—19, Jawaharlal Nehru Road, Calcutta 13.

National Rubber Works.—171/A Mahatma Gandhi Road, Calcutta 7.

National Tyre & Rubber Co. India Ltd.—6, Rowland Road, Calcutta 20.

New India Rubber Works (Pvt.) Ltd.—34-A, Debendra Chandra Dey Road, Calcutta 15.

Olympia Rubber Works.—10, Paymental Garden Lane, Calcutta 15.

Oriental Rubber Works.—171-A, Mahatma Gandhi Road, Calcutta 7.

Popular Rubber Works Pvt. Ltd.—20, N. Subhas Road, Calcutta 1.

Prankrishna Industries Pvt. Ltd.—40, Strand Road, Calcutta I.

R.B.S. Rubber Mills Pvt. Ltd.—Jawala Prasad Lane, Liluah, Howrah.

Rubber & Allied Products.—26, Madhusudan Palchoudhury Lane, Howrah. Rubber Equipment & Engineering Co. Pvt. Ltd.—4-C, Garstin Place, Calcutta 1.

Rubbertex.-21, Kumartuli Street, Calcutta 5.

Rubber Products & Moulding Co.—9-A, Bechanlal Road, Calcutta 46.

S. G. R. Industries Pvt Ltd.—10, The Mall, Dum Dum, Calcutta 28.

Shree Krishna Rubber Works Pvt.—Ltd.—5, Mission Row, Calcutta 1.

Tropical Rubber Co.-1, Barreto's Lane, Calcutta 1.

United Tyres .- 59-B. Chowringhee Road, Calcutta 20.

## SANITARY APPLIANCES

Advance Engineering Corporation.—12B, Clive Row, Calcutta.

Asoka Trading Corporation.—46, Dharamtolla Street, Calcutta 13.

Britania Building & Iron Co. Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta.

Calcutta Constructors Pvt. Ltd.—34, Strand Road, Calcutta I.

Emporia of Commercial Stores.—22, Netaji Subhas Road, Calcutta 1.

National Planning & Construction Ltd.—16, Ganesh Ch. Avenue, Calcutta 13.

Robsan & Co. Pvt. Ltd.—P-14, Mission Row Extension, Calcutta 1.

Sanitary & Plumbing Stores Pvt. Ltd.—146, Shyama Prosad Mookerie Road, Calcutta 26.

S.D.M. Syndicate.—27, Madan Boral Lane, Calcutta 12.Soor Neogi Coomar & Co. Pvt. Ltd. —39, College Street, Calcutta 12.

Thakurdas Surekha.—40, College Street, Calcutta 12.

# SCIENTIFIC & SURGICAL APPARATUS & INSTRUMENTS MANUFACTURERS & DEALERS

Adair Dutt & Co. (India) Pvt. Ltd.—5, Dalhousie Square East, Calcutta 1.

Alcock W. J. & Co. Pvt. Ltd.—7, Hastings Street, Calcutta 1.

Anglo-Swiss Watch Co.—6, Dalhousie Square East, Calcutta.

Associated Elec. Industries (India) Ltd.—13, R. N. Mukherjee Road, Calcutta 1.

Automatic Scientific Supply.—149/1, Beliaghata Main Road, Calcutta 10.

Bajaj Electricals Ltd.—10, Ganesh Ch. Avenue, Calcutta 31.

Basmall & Co. (India) Pvt. Ltd.—Basmall House, Bangur Avenue, Calcutta 28.

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.

Bengal Scientific & Chemical Supply Co.—100, Keshab Ch. Sen Street, Calcutta 9.

Bengal Scientific & Technical Works Pvt. Ltd.—20-3, Ashwini Dutt Road, Calcutta 29.

Bestobell India Ltd.—24, Chittaranjan Avenue, Calcutta 12.

Bombay Surgico Medical Agency Pvt. Ltd.—113, Chittaranjan Avenue, Calcutta 12.

Calcutta Metallic Co.—11, Harish Mukherji Road, Calcutta 1.

Chemicals & Scientific Instruments Mfg. Co. 208, Bowbazar Street, Calcutta 12.

Chemical & Surgical Works Ltd.—186, BBBG Street, Calcutta 12.

Cirugia De Lux (Pvt.) Ltd.—24, Chowrangee Road, Calcutta 13.

Darbara Singh & Sons.—14, Bow Bazar Street, Calcutta 12. Deformity Appliances and Hospital Stores.—112, Amherst Street, Calcutta 9.

Doshi Brothers.—1, Portuguese Church Street, Calcutta 1. Eastern Scientific Co.—3-A, Beliaghata Main Road, Calcutta 10.

Electro Science Corpn. (Pvt.) Ltd.—7, Waterloo Street, Calcutta 1.

Geologists' Syndicate Ltd.—BRBB Road, Calcutta 1.

Gharpure & Co.—P/36, Royal Exchange Place Extension, Calcutta.

Gordhandas Desai Pvt. Ltd.—P-7, Mission Road, Extension, Calcutta 1.

Hospital Supply Co.—111, Chittaranjan Avenue, Calcutta 12.

Indian Chemicals & Scientific Instrument Works, 208, Bepin Behari Ganguli Street, Calcutta 12.

Indian Oxygen Ltd.—48-1, Diamond Harbour Road, Calcutta 27.

Industrial Instrument Co.—P-34, Mission Road, Calcutta 13.

James Murray & Co. Pvt. Ltd.—5, Old Court House Street, Calcutta 1.

Jenny Christensen (Service Apartments) Pvt. Ltd.—7, Pretoria Street, Calcutta 16.

Kay Orr Brothers.—P-36, Royal Exchange Place Extn., Calcutta 1.

Mahindra Engg. Co. Pvt. Ltd.—31, Chowringhee, Calcutta 16.

Mansfield Oil Gas Co. Ltd.—16, Radhanath Choudhury Road, Calcutta 15.

New Indian Scientific Apparatus Co.—20, Radha Kanto Jew Street, Calcutta 4.

O. Sicerin & Biva.—85, C. Jatindra Avenue, Mohan Nivas, Calcutta 5.

Overseas Trade Corporation.—133, Canning Street, Calcutta 1.

Pharma Ortho Surgicals.—33, College Street, Calcutta 12.
Philips India Pvt. Ltd.—7, Justice Chandra Madhab
Road, Calcutta 20.

Precision Instrument Corpn. (India) Pvt. Ltd.—46, Dharamtolla Street, Calcutta 13.

Process Control Equipment Co.—55, Joy Mitter Street, Calcutta 5.

Purban Pvt. Ltd.—37, Dharamtolla Street, Calcutta 13. Rimco.—15-B, Nalin Sircar Street, Calcutta 4.

Scientific and Surgical Corporation, 71, Canning Street, 3rd floor, Calcutta 1.

Scientific & Surgical Equipment Pvt. Ltd.—112, Chittaranjan Avenue, Calcutta 7.

Scientific Glass Apparatus Mfg. Co.—11-2, Hari Nath Dey Road, Calcutta 9.

Scientific Repairs & Trading Co. Pvt. Ltd.—27, Benaipukur Road, Calcutta 14.

Sett & De.—16, Ganesh Chandra Avenue, Calcutta 13.

S. Sircar & Co. Pvt. Ltd.—10, Phears Lane, Calcutta 12. Tamania Traders.—4, Jagmohan Mullick Lane, Calcutta 7. Technological Equipment Co. Pvt. Ltd.—E-8, Industrial

Estate, Calcutta 35.
Technotrade Engg. Co.—235-E, Bow Bazar Street, Cal-

cutta 12.
Toshniwal Brothers Pvt. Ltd.—85A, Sarat Bose Road, Calcutta<sub>c</sub>26.

Uday Scientific Industries Pvt. Ltd.—6/A, Bhabanath Sen Street, Calcutta 4.

Villait Electronic Industries Pvt. Ltd.—33/2A, Sankaritolla Street, Calcutta 14.

#### SCREWS

Associated Industrial Corpn.—85, N. Subhas Road, Calcutta 1.

Associated Mfrs. (India).—Brojanath Lahiri Lane, Santragachi, Howrah 4.

Bengal Screw Mfg. Co.-2, Clive Row, Calcutta 1.

Mundra Brothers.—113, Monohardas Chowk, Calcutta 7.
Standard Screws Industries.—34, N. Subhas Road, Calcutta 1.

#### SPRING MANUFACTURERS

All India Spring Mfg. Co.—135, N. Subhas Road, Calcutta 1.

Asia Spring Mfg. Co.—21-A, Canning Street, Calcutta 1. Avon Springs & Accessories Pvt. Ltd.—12, India Exchange Place, Calcutta 1.

B. B. M. Engineering Co.—5/IB, Ismail Street, Calcutta 14.
Bharat Commercial Enterprises.—26, C. R. Avenue, Calcutta 13.

Bharat Spring Mfg. Co.—115, N. Subhas Road, Calcutta 1. Chatterjee Engg. Co.—113, Dharamtala Street, Calcutta 13.

Chicago Spring Mfg. Co.—71-A, N. Subhas Road, Calcutta

Eastend Industries.—98, Middle Road, Calcutta 14. Indian Spring Mfg. Co.—79, Deshpran Sasmal Road, Howrah.

Industrial Commercial Corporation.—P-38, Mission Row Extension, Calcutta 13.

Luxmi Industrial Works.—Jalan House, 4, Panchi Dhobani Lane, Calcutta 7.

Metal Reform & Co.—1-C, Tangra 2nd Lane, Calcutta 46. Navin Industries.—20, Netaji Subhas Road, Calcutta 1. New Dominion Engg. Works, 1-B, Pottery Road, Calcutta

15. Pioneer Spring & Steel Concern Pvt. Ltd.—20, British Indian Street, Calcutta 1.

Precision Engg. Works.—7B, Kamardanga Road, Calcutta 46.

Regular Spring Mfg. Co.—113/G, N. Subhas Road, Calcutta 1.

Reliable Spring Mfg. Co.—91, N. Subhas Road, Calcutta 1. Sankar Spring & Steel Co.—40, Strand Road, Calcutta 1. Sheffield Spring & Steel Co.—135-A, Biplabi Rashbehari Road, Calcutta 1.

Spring Manufacturers (India).—132, Beliaghata Road, Calcutta 15.

Swami (Spring Mfg.) Co.—40/1, Strand Road, Calcutta 1. Victor Industries.—4E, Latafat Hossain Lane, Calcutta 10.

## TARPAULIN AND CANVAS

Bengal Canvas Goods Mfg. Co.—2B, St. George Terrace, Calcutta 22.

Benraj Girdharmull.—56, Netaji Subhas Road, Calcutta 1. Calcutta Proofing & Paulin Mfg. Co. Pvt. Ltd.—62, Alipore Road, Calcutta 27.

Chandi Charan Nayak Pvt. Ltd.—124-1, BBG Street, Calcutta 12.

F. Harley & Co.—5, Delhi Serampore Road, Calcutta 14. Goyalka Brothers.—P-4, New Howrah Bridge Approach Road, Calcutta 1. Kilburn & Co. Ltd .-- 2, Fairlie Place, Calcutta 1.

Madhoprasad Mahabirprasad.—9, Parsee Church Street, Calcutta 1.

New India Mercantile Co. Pvt. Ltd.—15, India Exchange Place, Calcutta 1.

New India Proofing Co.—Calso Park, Calcutta 39.

Premier Canvas Co.-28, N. S. Bose Road, Calcutta 1.

Railway Supply Corpn. Pvt. Ltd.—10, Ganesh Chandra Avenue, Calcutta 13.

Shew Prosad Bishnu Prosad.—11, Dinu Rakhit Lane, Calcutta 5.

Sircar Bros. Ltd.—26-1, S. N. Roy Road, Calcutta 38. Soobashah & Co.—12, Zakaria Street, Calcutta 1.

Tarachand Gupta & Co.—24, Burtolia Street, Calcutta 7. Textile Waste Co.—113C, Netaji Subhas Road, Calcutta 7-

## TEXTILE MILLS

Anantapur Textiles Ltd.—161, Netaji Subhas Road, Calcutta 1.

Assam Cotton Mills.—9, Parsee Church Street, Calcutta 1.

Basanti Cotton Mills Ltd.—18, Netaji Subhas Road,
Calcutta 1.

Bengal Fine Spg. & Wvg. Mills Ltd.—7, Bepin Behari Ganguli Street, Calcutta 12.

Bengal Luxmi Cotton Mills Ltd.—7, Jawaharlal Nehru Road, Calcutta 13.

Bengal Textile Mills Ltd.—Mercantile Buildings, 1st floor, 9, Lallbazar Street, Calcutta 1.

Bhagyalaxmi Cotton Mills Ltd.—2, Brabourne Road, Calcutta 1.

Bhaskar Textile Mills Ltd.—2, Brabourne Road, Calcutta 1.

Bowreah Cotton Mills Co. Ltd.—21, Strand Road, Calcutta 1.

Calcutta Woollen & Silk Mills Ltd.—191, Mahatma Gandhi Road, Calcutta 7.

Central Cotton Mills Ltd.—9, Brabourne Road, Calcutta 1. Dunbar Mills Ltd.—21, Strand Road, Calcutta 1.

Eastern Spinning Mills Ltd.—P-46A, C. I. T. Scheme XLV, Radhabazar Lane, Calcutta 1.

General Industrial Society Ltd.—15, India Exchange Place, Calcutta 1.

Hada Textiles Industries Ltd.—4, Government Place, (North), Calcutta 1.

Hindustan Cotton Mills Ltd.—5, Clive Row, Calcutta 1.

India Jute Co. Ltd.—16, Strand Road, Calcutta 1.

Jatia Cotton Mills Ltd.—18, Netaji Subhash Road,
Calcutta 1.

Jaya Shree Textiles & Industries Ltd.—46, Radhabazar Street, Calcutta I.

Jyoti Weaving Factory Pvt. Ltd.—P-11, New Howrah Bridge Appr. Road, Calcutta 1.

Kesoram Ind. & Cotton Mills Ltd.—15, India Exchange Place, Calcutta 1.

Madura Mills Co. Ltd.—Serampore, Hooghly.

Mayurakshi Cotton Mills Ltd.—44, Dr. Sundari Mohan Avenue, Calcutta 14.

Mohini Mills Ltd. No. 2.—22, Biplabi Rashbehari Basu Road, Calcutta 1.

Orissa Textile Mills Ltd.—33, Chittaranjan Avenue, Calcutta 12.

Pioneer Knitting Mills Ltd.—6/1A, Prannath Soor Lane, Calcutta 2.

Poddar Projects Ltd.-11, Rabindra Sarani, Calcutta 1.

Rampooria Cotton Mills Ltd.—8-B, Lall Bazar Street, Calcutta 1.

Shaktigarh Textiles & Ind. Ltd.—4, Government Place, North, Calcutta 1.

Shree Hanuman Cotton Mills Ltd.—46, Strand Road, Calcutta 1.

Shree Mahalaxmi Cotton Mills.—68, Nalini Sett Road, Calcutta 7.

Sri Annapurna Cotton Mills Ltd.—P-10, New Howrah Bridge Appr. Road, Calcutta 1.

Sri Durga Cotton Spg. & Wvg. Mills Ltd.—135, Biplabi Rashbehari Basu Road, Calcutta 1.

Victoria Cotton Mills Ltd.—15, India Exchange Place, Calcutta 1.

Vidyasagar Cotton Mills Ltd.—11, Colootolla Street, Calcutta 12.

## TRANSFORMERS

Associated Electrical Industries India, Ltd.—13, R. N. Mukherjee Road, Calcutta 1.

Associated Traders.—1, Chandni Chowk Street, Calcutta 13.

Electric Construction & Equipment Co. Ltd.—27B, Carnac Street, Calcutta 16.

Elvoc Pvt. Ltd.—36, Panditia Road, Calcutta 29.

E. S. & E. Co. Pvt. Ltd.—59/6, Christopher Road, Calcutta 46.

Esdee Engg. Works.—50-A, Kankurgachi Road, Calcutta 54.

General Electric Co. of India Pvt. Ltd.—Magnet House, Chittaranjan Ave., Calcutta 13.

Gupta Engineering Co.—32, Ganesh Ch. Avenue, Calcutta 13.

Hindusthan Electric Co. Ltd.—184, J. N. Mukherjee Road, Salkia, Howrah 6.

India Electric Works Ltd.—Diamond Harbour Road, Calcutta 34.

India Radio Manufacturing Co.—18, Chandni Chowk Street, Calcutta 13.

Indian Electric & Transformers Co.—7, Waterloo Street, Calcutta 1.

Marsons.-4, Chandni Chowk Street, Calcutta 13.

## VALVES AND COCKS

A. Banerji & Co.—32E, Jackson Lane, Calcutta 1.

Ajanta Valves & Rubber Industries.—11, Pollock Street, Calcutta 1.

Anis Enterprise.—79, N. Subhas Road, Calcutta 1.

Annapurna Metal Works.—99/4, Ballygunge Place, Calcutta 19.

Arkay Supply Syndicate.—24, Khetra Mitra Lane, Salkia, Howrah.

Bhutoria Engg. Works.—8, Lindsay Street, Calcutta d6.
Calcutta Commercial Co.—37, Strand Road, Calcutta 1.
City Engineering Co.—18, Raja Woodmunt Street,
Calcutta 1.

Govardhan Das, P. A.—32, Netaji Subhas Road, Calcutta 1. Hindustan Metal Industries.—137, Canning Street, Calcutta 1.

Howrah Foundry Works Pvt. Ltd.—14/1/1A, Jackson Lane, Calcutta 1.

Howrah Light Casting Co. Pvt. Ltd.—27/2C, Strand Road, Calcutta 1.

Indian Valve Co.-4, Fairlie Place, Calcutta 1.

Iron & Metal Traders Pvt. Ltd.—33, Chittaranjan Avenue, Calcutta 12. Lakshmi Engg. Works.—14, Asu Bose Lane, Howrah 1. M. N. Chatterjee & Co.—P-42, Banaras Road, Howrah. Pelican Valves & Engg. Works.—57/2, Q Road, Howrah. Shiva Engg. Works.—2, India Exchange Place, Calcutta 1. S. P. Gupta & Co.—12, Rajendra Deb Road, Calcutta 7. Swastika Enterprises.—P-7, Old China Bazar Street, Calcutta 1.

Upadhya Brothers & Co.—23-A, N. Subhas Road, Calcutta 1.

Victor Corporation, 113/B, Manohardas Chowk, Calcutta 7.

## WATER METERS

Capstan Meters I. Ltd.—144, Cotton Street, Calcutta 7. Goverdhandas P. A.—32, N. Subhas Road, Calcutta 1. International Stores.—73, N. Subhas Road, Calcutta 1. Kaycee Industries Ltd.—2, Woodburn Court, 10, Elgin Road, Calcutta 20.

Moscow Meters.- 11, Pollock Street, Calcutta 1.

Rajkamal Water Meter Mfg. Co.— 75, N. Subhas Road, Calcutta 1.

## WATERPROOF AND WATERPROOFING PRODUCTS

Chemico Cement Waterproofing Industries Pvt. Ltd.—16, India Exchange Place, Calcutta 1.

India Waterproof Ltd.—13, Brabourne Road, Calcutta 1.
 Lloyd Bitumen Products.—4-A, Royd Street, Calcutta 16.
 Structural Waterproofing Co. Pvt. Ltd.—21/1, Dover Road, Calcutta 19.

## WATER WORKS ACCESSORIES

Annapurna Metal Works.—Near Bondel Road, Railway Crossing, Tilagala, Calcutta 39.

Associated Water Softeners.—4, Princep Street, Calcutta 13.

Bengal Machine Tool Works.—112, Narasingha Dutta Road, Howrah I.

B. N. Panchal & Sons Pvt. Ltd.—48, Kaliprasad Banerjee Lane 5, Bantra, Howrah 1.

Garg & Sons.—15, Ganesh Chandra Avenue, Calcutta 13. Industrial Engineering Works.—149, Belilios Road, Howrah.

Reliance Engineering Works.—233, Belilios Road, Howrah 1.

# WELDING SETS & ACCESSORIES

Associated Electrical Industries (India) Ltd.—13, R. N. Mukherjee Road, Calcutta 1.

Bhabataran Sarkar & Sons.—62/1/A, N. Subhas Road, Calcutta 1.

Bosco.—36, Strand Road, Calcutta 1.

Calcutta Wire Works.—6, Tiljala Road, Calcutta 46.

H. C. Giddings Pvt. Ltd.—C. C. R. Avenue, Calcutta 13.

Hend Enterprises.—8, Dalhousie Square East, Calcutta 1. Indian Oxygen Ltd.—48-1, Diamond Harbour Road, Calcutta 27.

Industrial Gases Ltd.—15, Ganesh Chandra Avenue, Calcutta 13.

Jai Hanuman Industrial Corpn.—1, Bonfield Lane, Calcutta 1.

J. N. Samanto & Co. Pvt. Ltd.—4/5, Grand Trunk Road, Howrah.

Philips India Ltd.—7, Justice Chandra Madhab Road, Calcutta 20.

Pioneer Engineering Stores.—18, Raja Woodmunt Street, Calcutta 1. Poonam Trading Co.—133/C, Dharamtolla Street, Calcutta 13.

Reliable Trading Agency.—23, Canning St., Calcutta 1. Saru Smelting & Refining Corpn. Pvt. Ltd.—161/1,

Mahatma Gandhi Road, Calcutta 7.

Sur Iron & Steel Co. Pvt. Ltd.—15, Convent Road, Calcutta 14.

Vishwa Bharati Trading Co.—R-24, 2, Mullick Street, Calcutta 7.

## **WEIGHING MACHINES & SCALES**

Asiatic Machinery Corpn. Pvt. Ltd.—10-1, Kailash Chandra Lane, Howrah 4.

Avery India Ltd.—28/2, Waterloo Street, Calcutta 1. Bharat Weighing Scales and Engineering Syndicate.—75-1, Kala Chand Nundy Lane, Bantra, Howrah.

Bharati Scales & Engineering Co.—4-1, Haldarpara Lane, Howrah.

Eastern Scales Pvt. Ltd.—12, Guru Saday Road, Calcutta
19.

Hindustan Scale Corporation.—56, Netaji Subhas Road, Calcutta 1.

India Machinery Co. Ltd.—29, Strand Road, Calcutta 1.

K. P. Das & Co. Pvt. Ltd.—163, N. S. Road, Howrah. Manufacturer & Service Syndicate.—96, Belgachia Main Road, Calcutta 10.

N. C. Das & Brothers.— 10/13, Brindaban Mullick Lane, Howrah.

Raman Industries.—216, N. Subhas Road, Howrah 4. Satish Chandra Das & Co.—113, Khangrapatti Street,

Calcutta 7.
Shah Engg. Works.—Post Bag No. 2, Howrah 1.

Sujauddin & Co.—75, N. Subhas Road, Calcutta 1. Tulsi Trading Co.—67B, N. Subhas Road, Calcutta 1.

W. B. Scale & Co. Pvt. Ltd.—10, Kailash Ch. Chandra Lane, Santragachi, Howrah.

Woomacharan Karmakar.—161, N. S. Road, Calcutta 7.

## WIRE & WIRE PRODUCTS

Arun Wire Industries.—181A, Chittaranjan Avenue, Calcutta 7.

Asoke Wire Products Pvt. Ltd.—54, Bentinck Street, Calcutta 1.

Associated Enterprisers.—161, Netaji Subhas Road, Calcutta 1.

Bamangachi Engineering & Wire Products.—137, Canning Street, Calcutta 1.

Bengal Steel Metal Works.—19/B, B.B.G. Street, Calcutta 12.

Bengal Wire Mfg. Co.—8, Brojodayal Sahu Row, Calcutta 2.

Bengal Wire Syndicate.—20, Maharshi Debendra Road, Calcutta 7.

Benimadhab Sett Satyacharan Sett.—D-4, Juggernath Ghat, Lohapatty, Barabazar, Calcutta 7.

Bharat Steel and Wire Agency.—57, Clive Street, Calcutta
7.

Binani Commercial Corporation.—115, Netaji Subhas Road, Calcutta 1.

Bindawalia Industries Corpn.—6, Hanspukur 1st Lane, Calcutta 7.

Calcutta Wire & Nail Products.—9, Armenian Street, Calcutta 1. Calcutta Wire Works.—6, Tiljala Road, Calcutta 4. Chalina Rolling Mills Pvt. Ltd.—5, Mission Row, Calcutta 1.

Dayal Commercial Co. Pvt. Ltd.—8/5, Rupchand Roy Street, Calcutta 7.

Dinodiya Engineering Works.—15, Noormal Lohia Lane, Calcutta 7.

East India Wire Industries.—178, Mahatma Gandhi Road, Calcutta 7.

Engineering Industries Corporation.—222, Rabindra Sarani, Calcutta 7.

Golden Steel Corpn. Pvt. Ltd.—15, G. T. Road, Lilooah, Howrah.

Hind Engineering & Wire Products.—14/1, Kundan Lane, Lilooah, Howrah.

Hind Wire Craft Industries.—156, Jamunalal Bajaj Street, Calcutta 7.

Hind Wire Industries Ltd.—P16, Kalakar Street, Calcutta 17.

Hindusthan Wire & Metal Products Ltd.—Nicco House, 1 & 2, Hare Street, Calcutta 1.

Hindustan Wire Industries.—92, Jamunalal Bajaj Street, Calcutta 7.

Howrah Wire Industries.—59, Canning Street, Calcutta 1. India Commerce & Industries Corporation.—82, Armenian Street, Calcutta 1.

Indian Steel and Wire Products Ltd.—7, Wellesley Place, Calcutta.

India Woven Wire Manufacturing Co.—66, N. S. Road, Calcutta 1.

Industrial Association (Wire Products) Pvt. Ltd.—33, Brabourne Road, Calcutta 1.

International Wire Nail Mfg. Co. Ltd.—196-B, Chittaranjan Avenue, Calcutta 7.

Kanj Pannachand Pvt. Ltd.—33, Armenian Street, Calcutta 1.

Linkers Corporation.—15, Ashutosh Mukherjee Road, Belur, Howrah.

Mathew & Co.—5, Kashinath Dutt Road, Barangore, Calcutta 36.

Mitter Mfg. Pvt. Ltd.—71, Ganesh Ch. Avenue, Calcutta 13. M. Paul Wire Products.—95, Chakpara Road, Howrah.

M. S. Industries.—P-10, New Howrah Bridge Approach Road, Calcutta 1.

National Screw & Wire Products Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta 1.

National Steel & Wire Industries.—72, G. T. Road (North) Lilooah, Howrah.

National Wire & Steel Works.—76, Cotton Street, Calcutta 1.

Nippon Steel Products Ltd.—181-B, Chittaranjan Avenue, Calcutta 6.

Non-Ferrous Metal Industries Pvt. Ltd.—42/1, Strand Road, Calcutta 1.

Novelty Engineering Works.—Brojonath Lahiri Lane, P. O. Santragachi, Howrah.

Orient Steel & Wire Industries Pvt. Ltd.—2, Brabourne Road, Calcutta 1.

Pioneer Wire Industries.—B. T. Road, Khardah, Calcutta. Shiva Wire & Steel Products Ltd.—21, Jatindra Mohan Avenue, Calcutta 6.

Shree Mahabir Industries.—37-A, Tarachand Dutta Street, Calcutta.

Sonthalia & Co.—71, Seth Jamunalal Bajaj Street, Calcutta 7.

Standard Metal Co.—101, Netaji Subhas Road, Calcutta 1. Steel & Wire Products (India).—P-108, B. K. Paul Avenue, Calcutta 5.

Sterling Products Co.—5, Clive Row, 2nd Floor, Room No. 41, Calcutta 1.

Ultra Engineering Co.—172-8, Madhusudan Pal Choudhury Lane, Howrah.

Variety Industrial Works Pvt. Ltd.—Kumarprasad Road, Lillooah, Howrah.

Vijoy Industries.—28, Strand Road, Calcutta 1.

## WIRE NETTING (WELDED MESH)

Addison Wire Products Corporation.—71-A, Netaji Subhas Road, Calcutta 1.

Asian Agencies.—91, N. Subhas Road, Calcutta 1.

Bengal Wire Netting Syndicate.—121, N. Subhas Road, Calcutta 1.

Bharat Engineers & Traders.—65/1, Maharshi Debendra Road, Calcutta 6.

Bharat Wire Netting Factory.—113, Netaji Subhas Road, Calcutta 1.

Birani & Co.—89, Netaji Subhas Road, Calcutta 1.

Calcutta Netting Works.—123 & 124, Chandni Chowk, Calcutta 13.

Debendra Nath Paul & Co.—32/2, Nirmal Chunder Street, Calcutta 12.

Dey Roy & Co.—68-B, N. Subhas Road, Calcutta 1. G. C. Sen & Co.—2, India Exchange Place, Calcutta 1.

Indian Steel & Wire Products Ltd.—7, Wellesley Place, Calcutta 1.

International Wire Netting Stores.—62, Netaji Subhas Road, Calcutta 1.

Jain Wire Netting Stores.—62, Netaji Subhas Road, Calcutta 1.

Jeetmull Jaichandlal.—109, N. Subhas Road, Calcutta 1. Jibon Krishna Dey & Brothers.—103, Netaji Subhas Road, Calcutta 1.

Kiran Wire-Netting Co.—18, Raja Woodmunt Street, Calcutta 1.

Motiram Agarwal & Co. Ltd.—137, Canning Street, Calcutta 1.

Naik & Co.—68-A, Netaji Subhas Road, Calcutta 1.

R. P. Biswas & Sons.—1/10, Barwaritala Road, Calcutta 10.

Spinning Accessories Pvt. Ltd.—34, Baranashi Ghosh Street, Calcutta 7.

Standard Metal Co.—101, N. Subhas Road, Calcutta 1. Wire Products Agency.—109, N. Subhas Road, Calcutta 1.

#### WIRE ROPES

Fort William Co. Ltd. (Steel Wire & Ropes Divn.).—14, Netaji Subhas Road, Calcutta 1.

J. K. Steel & Industries Ltd.—18, Rabindra Sarani, Calcutta 1.

Kalinga Industrial Co.—83, N. Subhas Road, Calcutta 1. National Rolling & Steel Ropes Ltd.—Nicco House, 2, Hare Street, Calcutta 1.

Usha Martin Black (Wire Ropes) Ltd.—14, Princep Street, Calcutta 13.

# WHO'S WHO IN INDIA

ABDULLAH, Sheikh Mohamad, ex-Prime Minister, Jammu and Kashmir. b. 1905, in Soura, near Srinagar; Educ.: Srinagar; Lahore; M.Sc., Aligarh Univ. Campaigned for responsible Government and formed the Kashmir Muslim Conference which later became the National Conference in 1938; launched the 'Quit Kashmir' movement, 1946, for the complete democratisation of Kashmir; was put in prison; elected Pres., All-India States Peoples' Conference; released, 1947; was the Head of the Emergency Administration, Kashmir; member, Kashmir Delegation from India to the U.N.O.; M.P. for Kashmir till 1952; was detained, 1953-58; detained again, April 29, 1958 under the Preventive Det. Act; released on April 8, 1964; placed under restricted movements within the municipal limits of Ootacamund under the Defence of India Rules for his anti-national activities outside India, May 1965; released Dec. 25, 1967. Address: C/o Soura, P.O. Noushera, Srinagar.

ABID Ali, M.P., Ex-President, INTUC. b. 1899. Joined N.C. Movement and Khilafat 1921; actively participated in India's freedom struggle; jailed 12 times; M.L.C. Bombay, 1949-52; member, Rajya Sabha since 1952; Dy. Labour Minister, Govt. of India 1952-62; Founder member, INTUC, 1947; Pres., Bombay Pradesh INTUC, 1948-51; Indian workers' representative at International Conferences: Geneva 1963-46, Tokyo 1968, etc.; International representative of INTUC since 1963; etc.; International representative of INTUC since 1963; Pres., ILO Conference, 1967; member, ICFTU Exec. Board, since 1965; Leader: Indian Delegation to ILO Conference, Geneva, 1953 and 1961; Asian Regional Conferences: Tokyo 1953; Delhi 1957; widely travelled all over the world. Publications: Mazdoor Se Minister. Address: Bombay-26.

ACHARYA, H.E. Mr. Bejoy Krizhna, B.A. (Hons.) (Econ.) (Calcutta), Indian High Commissioner to Pakistan, since Feb. 1969. b. May 1, 1912; Educ.: Calcutta and London Univs. Joined I.C.S., 1936; held charge of important Bengal dists. like Howrah, 24 Parganas, Bakarganj & Darjeeling; Dewan of Tripura & Dy. Chief Commr., Himachal Pradesh; Dy. Indian High Commr. at Dacca; Indian Minister in Cambodia; Jt. Secy., Min. of Ext. Affairs; Amb. to: Czechoslovakia & Rumania, 1959-62; Morocco & Tunisia, 1962-64; High Commr. to Canada, 1964-66; Ambassador to Brazil and Venezuela, 1966-68; Leader: Indian, Delegation to U. N. Seminar on Apartheid, Brazil, Aug-Sept. 1966; member, Indian Delegation to the Annual I. M. F. and I.B.R.D. Confee., Rio de Janeiro, Sept. 1967. Address: C/o External Affairs Ministry, New Delhi.

ADARKAR, Vishnu Namdeo, G. D. Art (Ptg.), Life Fellow, Central Inst. of Art and Design, Lond. ("Honoris Causa"), 1947; I.S.A. Award (1962), Padma Shri (1965), J. P., (1966); Adviser, Industrial Design Centre, I.I.T. Bombay, since 1969, b. Aug. 23, 1908; Educ.: Sir J. J. School of Art, Bombay. Dy. Dir., Sir J. J. School of Art, 1939-40 and 1942-48; Supdt. and Head of the Dept. of Applied Art, Sir J. J. School of Art, 1948-58; Prof., Principal and Dean, Sir J. J. Inst. of Applied Art; Dir. of Art, Maharashtra State, 1965-68; Chairman: All India Board of Tech, Stüdies in Applied Art, Govt. of India; Printing Tech. Cttee., since 1958; Industrial Design Cttee., 1965; member: Philatelic Adv. Cttee., Govt. of India and the Gen. Council of the Lalit Kala Akademi, New Delhi, etc. Publications: Art Education; Industrial Design; India of

my Dreams (Gandhi Darshan, New Delhi, 1969-70). Address: 'Adari', 2, Kalanagar, Bandra East, Bombay 51.

ADITANAR, Si. Pa., M.A., Bar-at-Law, Minister for Co-operation, Govt. of Tamil Nadu, since Feb. 1969. b. Sept. 27, 1905; Educ.: High School, Srivaikuntam; St. Joseph's Coll., Tiruchirapalli; Middle Temple, London. Is a lawyer and journalist; founded the "DAILY THANTHI" group of newspapers; M.L.C., Madras, 1952-57; M.L.A., 1957-62 and since 1967 from the Srivaikuntam Constituency; was Speaker of the Assembly. Publications: Tamil Perarasu. Address: No. 1, Crescent Park Road, Adyar, Madras-20.

ADKE, Dr. Appasaheb, B.E. (Civil), Ph.D. (Tech.), M.I.E. (Ind.), Vice-Chancellor, Karnatak Univ., since Dec. 27, 1967. b. June 20, 1906; Educ.: Sangli & Poona. Served with the Bombay Govt. and Mysore Govt. in several capacities as Dist. Engineer, Dharwar, Executive Engineer, Miraj, Kolhapur & Sangli Divisions, Supdtg. Engr., Mangalore, etc., 1930-67; was member. Syndicate, Senate & Academic Council, Mysore Univ.; ex-Chairman, Mysore Univ. Affiliation Cttee.; is member: Syndicate, Senate & Academic Council, Karnatak Univ.; Governing Body, National Institute of Engg., Mysore; Southern Regional Council, All India Council for Tech. Edn., Madras; U.G.C. Address: Vice-Chancellor, Karnatak Univ., Dharwar 3.

AGERWALA, Prem Mahesh, M.B.E., M.I.E., Industrialist. b. Oct. 13, 1911, in Meerut; Educ.: D.C.E. Hons., Roorkee. Joined Tatas on Jan. 1, 1965 after 33 years in Govt. service, retiring as Member, Telecommunications Operations, P. & T. Board; Mg. Director, Tata Hydro-Electric Agencies Ltd.; Director: Tata Industries Pvt. Ltd.; Tata Hydro-Electric Power Supply Co. Ltd.; Andhra Valley Power Supply Co. Ltd.; Tata Power Co. Ltd., Indian Hotels Co. Ltd.; Tata-Merlin & Gerin Ltd.; Exec. Cttee. Member, Tata Consulting Engineers; Chairman, Tata Consultancy Services; Founder Member and Fellow, Institution of Tele-communication Engineers, India. Address, Residence: 11A, Meher Apartments, Altamount Road, Bombay 26; Office: Bombay House, Bruce Street, Bombay 1.

AGGARWAL, Satish Chandra, LL.B. (Bom.), Secretary, Dalmia Cement (Bharat) Ltd., New Delhi. b. April 10, 1925; Educ.: D. J. Sind Coll. and S. C. Shahani Law Coll., Karachi. Awarded I.L.O. Fellowship for study of industrial relations in U.K. and U.S.A., 1955. Attended: International Management Congress at New York, 1963; I.L.O. Seminar on 'Wages', Denmark, 1967; Pres.: Delhi Management Assoc., 1965-67, Institute of Office Management-India, 1968-69, member: Second Cement Wage Board, 1964-67; Governing Council, All India Management Assoc; National Productivity Council, E.S.I.C.; Central Apprenticeship Council; National Panel of Arbitrators of the American Arbitration Assoc. Address: 28, Alipur Road, Delhi-6.

AHMAD, Muzaffar, Member, Central Cttee. of C.P.I.(M) and of the West Bengal State Cttee., C.P.I.(M). b. 1889; Educ.: Naokhali Zilla School and Bangabasi Coll., Calcutta. Member, C.P.I. since its inception in India, 1922; State Prisoner, 1923-24; convicted in Kanpur Bolshevic Conspiracy Case, 1924; imprisoned in Meerut Communist Conspiracy Case (1929-33); dentention without trial for several terms under D.I.R., 1948-66. Publications: 'Qazi Nazrul Islam: Smriti Katha in Bengali (reminiscences); Amar Jivan O Bharater Communist Party,

1920-29 (Bengali); Myself and the Communist Party of India, 1920-29 (memoirs) and booklets both in Bengali and English; contributes articles to papers. Address: 33, Alimuddin Street, Calcutta 16.

AHMED, Fakhruddin Ali, B.A. (Cantab.), Barat-Law, Minister for Food & Agri., Govt. of India, since June 27, 1970; Member, Cong. Wkg. Cttee. and All India Parly. Board, since 1964. b. May 13, 1905; Educ.: Govt. High School and St. Stephen Coll., Delhi; History Tripos, Cambridge Univ., 1927; called to the Bar from the Inner Temple, London, 1928. Advocate, Punjab & Assam High Courts and Senior Advocate, Supreme Court of India; member: Indian National Cong., since 1928; courted jail in freedom struggle; M.L.A., Assam, 1937-45, 1957 & 1962; M.P., Rajya Sabha, 1954-57; member, Indian delegation to the U.N. Gen. Assembly, 1957; Min. for Fin., Assam State, 1958-66. Min. for Irrigation & Power, Govt. of India, 1966; Min. for Education, 1966-67; on official tour to U.A.R., Yugoslavia, Bulgaria, France, Britain, Czechoslovkaia and U.S.S.R., Sept. 12 to Oct. 12, 1967; elected to the Lok Sabha from Barpeta Constituency (Assam), 1967; Min. for Industrial Development, Company Affairs and Wakfs, Govt. of India, 1967-70 & Deptt. of Internal Trade, 1969-70. Address: New Delhi.

AJWANI, Lalsingh Hazarisingh, M.A., Ellis Scholar and Gangadas Scholar, Sindhi Writer; Retd. Principal and Professor of English, D. & H. National and W. A. Science Coll., Bombay. b. July 17, 1899; Educ.: D. J. Coll., Karachi; Bombay Univ.; first class first in B.A. in English, 1919. Professor of English for over 40 years; First Convener, Sindhi Advisory Board, Sahitya Akademi, Delhi. Publications: Immortal India; and Sindhi books Vichar, Uchhal, etc. Address: Nav Jivan Colony, Mahim, Bombay 16.

AKHTAR-UL-IMAM, M.A., Cine Writer & Poet. b. Nov. 12, 1915; Educ.: Delhi Coll. & Aligarh Univ. After graduation worked for a year as Editor of a literary magazine; was a clerk in Supply Deptt.; Staff Artist, A.I.R.; became a Cine Writer and Dialogue Writer; wrote short stories too; started writing poetry, 1933; joined Shalimar Pictures, Poona, 1944. Publications: Poems; Girdab, 1940; Tareek Sayyara, 1946; Sab Rang, 1947. Aab Joo, 1955; Yaden, 1963; Bint-e-Lamhat, 1963. Address: 55, Bandstand Bldg., Kane Rd., Bombay 50.

AKILANDAM, P. V. alias AKILON, Tamil Novelist and Short Story Writer. b. Feb. 7, 1923; Educ.: Maharajah's Coll.. Pudukkotai. Participated in the freedom movement, 1941 44; took to writing; a social worker; attends Coll. meetings as a speaker, etc.; broadcasts on radio; literary works are being filmed for the Tamil screen awarded first prize for his novel by the Tamil Academy; won the 1963 Sahitya Akademi Award for his novel Vengaiyin Maindhan and Tamil Nadu Govt's. Award for his novel Kalaivizhi (1968); Pres., Tamil Writers' Assoc., 1967. Publications: 36 books. Producer, Spoken-word, All-India Radio, Madras. Address: 171, Lloyds Road, Madras 14.

AL. Valliappa, Writer of children's books in Tamil; Member: Cttee. for the devpt. of children's literature, Tamil Nadu Govt.; Founder-Pres., Children's Writers' Assoc., Madras; Pres., Tamil Writers' Assoc. 1966. b. Nov. 7, 1922; Educ.: Pudukkottai, Tamil Nadu. Former Editor, Poonjolai, a monthly Tamil magazine for children; surveyed 'Juvenile Reading habits in Tamil, for the UNESCO; awarded a silver shield by Dr. Zakir Hussain, on behalf of Children's Writers' Asso., 1963. Publications:

Malarum Ullam (Central Govt. award and Madras State award 1957); Nalla Nanbarkal, 1955 (Mad. State award); Biographies: Periyor Vazhvile, Chinnanchiru Vayadil, 1958; Pillai Paruvathile, 1967. Novel: Manikku Mani; Burma Ramani, Poems: Malarum Ullam Vol. II; Pattile Gandhi Kathai; Nehruvum Kuzhanthaikalum (biography) and other 45 books. Address: 10, Vaidya-ramier Street, Madras 17.

ALI, Mr. Justice Syed Murtaza Fazl, B.A. (Hons.), B.L., Chief Justice, High Court, Jammu and Kashmir State, since Dec. 3, 1967. b. Dec. 20, 1920; Educ.: St. Joseph's Convent, Patna; Patna Univ., Patna; Muslim Univ., Aligarh. Advocate, Patna High Court, Nov. 7, 1944, and Federal Court, Dec. 1949; worked on the panel of lawyers for the State of Bihar in the Patna High Court, 1958-67. Publications: Ten Years' Questions and Answers of the Patna University on Hindu Law, Mohammadan Law, Contract Act, Torts and Criminal Law. Address: Chief Justice's Residence, Sonwar Bagh, Srinagar.

ALI YAVAR JUNG BAHADUR, Dr. Nawab (Mirza Ali Yar Khan), B. A., Hons. (Oxford), Doctor of Laws (Honoris Causa), Osmania Univ., 1956, Padma Bhushan (1959), Governor of Maharashtra, since February 26, 1970. b. Feb. 16, 1905; Educ.: Nizam Coll., Hyderabad; Queen's Coll., Oxford. Lecturer and then Reader, Modern History and Political Science, 1927-30; Prof., Modern History, Osmania Univ., 1930-35; Dir. of Information, Nizam's Govt. 1935-37; Secy.: Constitutional Affairs, Information and Broadcasting; 1937-1942; Home and Judicial, 1942-46; Vice-Chancellor: Osmania Univ., 1945-'46 & 1948-'52; Aligarh Muslim University, 1965-'68; Minister for Constl. Affairs, Education, Public Health and Local Govt., Nizam's Govt., 1946-'47; resigned, 1947; Indian delegate to the General Assembly, U.N., 1946, '50, '52, '53, '54, and '55; Dy. Chairman, Indian delegation to the General Assembly, 1956, '57, & '60; Leader, Indian delegation to the Economic and Social Council, 1953; Chairman, U.N. Ad Hoc Cttee. for SUN-FED, 1956; Amb. to: Argentina and Min. Pleni. to Lebanon and Libya, 1954-58; Yugoslavia, Greece and Min. Pleni. to Bulgaria, 1958-61; France, 1961-65; U.S.A., 1968-70; Member: U.G.C., 1966-68; Standing Cttee., Inter-Univ. Board & Academic Cttee., and Governing Board, School of International Studies, 1966-68; Chairman, Study Team on Defence, Administrative Reforms Commission, 1967-68; Publications: Hyderabad in Retrospect. Address: Raj Bhavan, Bombay-35.

ALKAZI, Ebrahim Hamed, Graduate of The Royal Academy of Dramatic Arts, London, Sangeet Natak Akademi Award as Best Producer of the year (1962); Padma Shri (1966), Dir., National School of Drama and Asian Theatre Inst., since 1962. b. Oct. 18, 1925; Educ.: The Royal Academy of Dramatic Arts, London. Associate, Drama Board of Great Britain; awarded the Starred Certificate for outstanding work, by the British Drama League; won the B.B.C. Broadcasting Award, 1950; First Pres., Theatre Group, Bombay, 1947; Founder, Theatre Unit's School of Dramatic Arts, Bombay; founder-Editor, Theatre Unit Bulletin: Principal, Natya Academy, Bombay, till June 1962. Address: Rabindra Bhavan, Ferozeshah Road, New Delhi-1.

ALVA, Joachim, B.A., LL.B., M.P. (Rajya Sabha), Journalist and Advocate. b. Jan. 21, 1907, at Udipi, Mysore; Educ.: St. Aloysius Coll., Mangalore; St. Xavier's, Elphinstone and Law Colls., Bombay. Imprisoned in freedom movement; started FORUM,

1943; member, Stg. Cttee., A.I.N.E.C.; Sheriff of Bombay, 1949; twice member, Exec. Cttee., Congress Parly. Party; Member, A.I.C.C., 1956-57, 1958, and 1969; member Parly. Consultative Cttees. of Ext. Affairs, Defence, Fin. and Atomic Energy, 1957-61; member: Prov. Parliament of India, 1950-52; Court of the Instt. of Sc.; IMMTS "Dufferin" Cttee. and Merchant Navy Board. M.P. (Lok Sabha), 1952-67; travelled extensively abroad; Indian Rep., Commonwealth Parliamentary Confee., 1966; Alternate Indian Delegate to the U.N. Assembly, 1967. Publications: Men and Supermen of Hindustan (Thackers). Address: "Forum," Bombay.

AMIN, Ramanbhai Bhailalbhai, Industrialist; Chairman, Alembic Group of Industries. b. May 19, 1913; Educ.: Mechanical Engg. in Germany. Chairman: Alembic Glass Industries Ltd., Baroda Industrial Devpt. Corpn. Ltd., Shreno Ltd., Light Publication Ltd., Panshak Ltd.; Dir.: Gujarat State Fertilizers Co. Ltd., Gujarat Machinery Mfrs. Ltd., etc.; Pres., Gujarat Flying Club; member, Exc. Cttee.: F.I.C.C. & I.; All India Organisation of Industrial Employers; Federation of Gujarat Mills and Industries; Member: Gujarat State Advisory Council of Industries; Indian Institute of Public Administration. Address: Alembic Chemical Works Co. Ltd., Alembic Road, Baroda 3.

ANAND, Mulk Raj, B.A. (Hon.), Ph.D., Padma Bhushan (1967), Author, Novelist and Critic; Editor, Marg Magazine. b. Dec. 12, 1905; Educ.: Punjab, London and Cambridge Universities. Sometime Tagore Prof. of Art and Literature, Chandigarh Univ., Punjab; Editor of various magazines; visiting Prof. of Art, Indian Institute of Advanced Study, Simla; member, Sahitya Akademi; Chairman, Lalit Kala Akademi, 1966-71. Publications: Seven Summers, Morning Face, The Sword and the Sickle, Across The Black Waters, The Village, Two Leaves And A Bud, Coolie, Untouchable, Apology for Heroism, Lines Written to an Indian Air, Hindu View of Art, Persian Painting, etc. Address: 25, Cuffe Parade, Colaba, Bombay 5.

ANASUYA DEVI, Smt. Avazarala, B.A., Musician and Cine Music Dir. b. May 12, 1923; Educ.: P. R. Coll., Kakinada. Member: Sangeet Natak Akademy, Andhra Pradesh, 1958-63; Central Audition Board for Sugam Sangeet, Madras, Vijayawada and Hyderabad; a pioneer music composer with spl. emphasis on light and folk music of Andhra; started composing light classic and folk tunes early in life; gave lyric and folk music concerts at Rashtrapathi Bhavan, 1953; UNESCO Seminar, New Delhi, 1956; Tata's Diamond Jubilee Celebrations, Jamshedpur, 1958; inauguration of Andhra Pradesh, Hyderabad, 1956, etc. Address: 32, Raman Street, T. Nagar, Madras 17.

ANGAMI, T. N., Minister for Public Works, Nagaland, since Feb. 1969. b. in Jotsoma village near Kohima. Is an active member in the political life of Nagaland from 1950; was an Exec. member of the Naga National Council; broke away from it in 1955 on the question of violence, and helped the formation of the Naga People's Convention; member: Select Cttee. since the inception of Naga People's Convention, 1957; Wkg. Cttee. of N.P.C.; Chairman, Interim Body, Nagaland, 1961-63; Speaker, Leg. Assembly, Nagaland, 1964-66; Chief Minister, Nagaland, 1966-69. Address: Kohima.

ANNAMALAI, Sathappa Annamalai Palaniappa, M.A., B.L., Editor, Kumudam (Tamil Weekly). b. Dec. 12, 1924; Educ.: Santhome High School, Loyola Coll. and Law Coll., Madras. Address: 83, Purasawalkam High Road, P.B. No. 1008, Madras 10.

ANTHONY, Frank Reginald, B.A., Nagpur Univ., M.P., Pres., Anglo-Indian Assoc.; member: National Defence Council; Viceroy's Gold Medallist in English, Univ. Prizeman and Scholar, Bar-at-Law of the Inner Temple, London. b. Sept. 25, 1908; Educ.: Nagpur Univ. and London. Leading criminal lawyer in M.P.; Pres.-in-Chief, Anglo-Indian and Domiciled European Assoc., All-India and Burma, 1942; nominated to the Central Leg., 1942 and 1946; one of India's Delegates to the U.N. Gen. Assembly, 1946; member, Constituent Assembly of India; nominated to the Lok Sabha since 1952; represented India at the Commonwealth Parly. Cfce., New Delhi, Dec. 1957; advocate, Supreme Court and the Delhi High Court, New Delhi. Address: The All India Anglo Indian Association, Bombay Life Bldg., Connaught Circus, New Delhi.

APPA RAO, Dr. Ponangi Sri Rama, M.A., Ph.D., National Award, 1961, Telugu Writer. b. July 21, 1923; Educ.: M.A., Andhra Univ.; Ph.D., Osmania Univ.; Govt. of India Research Scholar in Humanities, Osmania Univ., 1956-59; Officer-in-Charge of Nationalisation of Text-books in Andhra Pradesh, since 1959; Hon. Secy., A. P. Sangeeta Nataka Akademi, since 1961; recipient, National Award for his publication Natya Sastramu, 1961; Cultural Relations Officer, Govt. of A.P., since April, 1966. Publications: Tajmahal, Drama, 1942; Venuvu, Poetic Prose, 1952; Viswabharati, Novel, 1946; Natya Sastramu, 1959; Telugu Drama (Ph.D. Thesis), 1967; Bharata's Natya Sastra (English), 1967. Address: Special Officer, Telugu Akademi, Hyderabad 29.

ARUMUGHAM, Sivalingam, B.Com., Minister for Education and Food, Pondicherry, since April 1969. b. April 16, 1934; Educ.: Ramaswamy Chettiar Town High School, Chidambaram; Annamalai Univ., Chidambaram. Joined D.M.K., 1954; member of its General Council, since 1961; contested election to Pondicherry Assembly, 1959; elected M.L.A., March 1969. Address: Kalmandapam, Mannadipet, P.O. Pondicherry.

ARUNACHALAM, A. M. M., Industrialist; b. March 1918. Chairman: TI Miller Ltd., The Orient Tools & Gauges Ltd., Madras; Madras Regional Cttee., Engineering Export Promotion Council; Madras Chamber of Commerce and Industry; Dy. Chairman, Nagpal Ambadi Petro-Chem Refining Ltd., Bombay; Director: Tube Investments of India Ltd., Madras; Carborundum Universal Ltd., Madras; Ashok Leyland Ltd., New Great Insurance Co. of India Ltd., Commerce (1935) Ltd., Bombay, etc.; extensively toured the U.K. and the Continent, U.S.A. and Japan; Hony. Consul-General for Japan in Madras, 1962-65; awarded the Order of the Rising Sun by His Imperial Majesty, the Emperor of Japan; member, L. I. C.; Leader, Indian delegation to the 23rd Congress of the Federation of Commonwealth Chambers of Commerce, London. Address: "The Laurels" 3, Chittaranjan Road, Madras 18.

ARUNACHALAM, M. V., B.Sc. (Hons.) (Madras), Industrialist. b. July 1927. Managing Director, Carborundum Universal Ltd., Tube Investments of India Ltd.; Director: Straw Products Ltd.; Shamsher Sterling Cable Corpn. Ltd., etc.; visited U.S.A., U. K. and West Germany as member, N.P.C. delegation, 1959; Under Sheriff, Madras, 1956; Pres.: Madras Institute of Management; Southern India Chamber of Commerce, 1964; member, Cttee. of F.I.C.C. & I.; Chairman, Neyveli Lignite Corpn.; Rotary Governor for Rotary Dist.: 320 for 1970-71. Address: 9, Santhome High Road, Madras 4.

ATAL, H.E. Raja Jai Kumar, B.A. (Hons.) (Oxon), I.C.S., Indian Amb. to Italy, and High Commissioner to Malta, since July 1969. b. Jan. 19, 1914;

Educ.: Winchester and Balliol Coll., Oxford, B.A. (Hons.), 1935. Joined I.C.S., 1936; Dy. Commr., Yeotmal, Nagpur, Chanda and Saugor, 1937-46; Pvt. Secy. to Maulana Abul Kalam Azad, Dy. Secy., Ministries of Educ., Transport and Ext. Affairs, 1946-48; Dy. High Commr. to Pakistan, 1952-54; Min., Indian Embassy, Washington, 1954-56; Jt. Secy., Min. of Ext. Affairs, 1957-59; Amb.: Turkey, 1959-66; Ethiopia, 1963-66; Yugoslavia & Greece, 1966-69. Address: Atal Ban, Jaipur; C/o Ministry of External Affairs, New Delhi.

ATMA RAM, Dr., M.Sc. (Allahabad), D.Sc. (Allahabad), Padma Shri (1959), Secretary, Ministry of Educ., Govt. of India; Director General, Council of Scientific & Industrial Research, since Aug. 22, 1966. b. Oct. 12, 1908; Educ. : Allahabad. Officer-in-Charge, Joint Dir. and then Director, Central Glass & Ceramic Institute, Calcutta, 1952-66; awarded: Shanti Swarup Bhatnagar Medal (1959); U.P. Scientific Research Cttee. Gold Medal and Cash Award (1959), and the K. G. Naik Gold Medal of the M. S. Univ. of Baroda (1963); elected Hon. Fellow, Soc. of Glass Technology, Sheffield, 1966; Pres.: Indian Ceramic Society, 1952-53; Institution of Chemists, 1962-63; Indian Science News Assoc., since 1965; National Inst. of Sciences of India, since 1969; Indian Science Cong., 1967-68. Publications: Over sixty scientific and technical papers in the field of physical chemistry, glass and ceramics; History of Science, in Hindi; over sixty patents to his credit. Address: New Delhi.

ATREYA, Dr. Bhikhan Lal, M.A., D. Litt., Padma Bhushan, 1957, Knight Commander, Italy, 1949, etc., Philosopher and writer; Editor: Darshana International; Psychics International; Gaveshna (Hindi). b. Sept. 24, 1897; Educ.: Banaras Hindu Univ.; Coll. of Sc., Calcutta Univ. Prof., Banaras Hindu Univ., 1923-57; Birla Visiting Prof. of Indian Philosophy and Culture to Thailand, China, Japan, U.S.A., England, Poland, etc., 1948, 1951, 1952, 1954 and 1964; member: Editorial Board, Great English Indian Dictionary, etc. Publications: Shankar's Doctrine of Maya (Hindi); The Philosophy of Yogavasisha; Sri Vasisha Darshanam (Sanskrit); The Spirit of Indian Culture; An Intro. to Parapsychology; A History of Indian Ethics (Hindi), etc. Address: Atreya Niwas, P.O. Hindu University, Varanasi 5.

AURORA, Lt. Gen. Jagjit Singh, psc, ndc, Param Vishisht Seva Medal (1970), G.O.C. in C., Eastern Command, since June 8, 1969. b. Feb. 13, 1917; Educ. : Gordon Mission Coll., Rawalpindi; Indian Military Academy, Dehra Dun; Staff Coll., Quetta; National Defence Coll., New Delhi. Commissioned into 2nd Punjab Regt., 1939; saw action in Malaya and Singapore during Second World War; promoted Lt. Col., 1947; commanded 1st Bn., 2nd Punjab Regt. (Parachute) during operations in Jammu and Kashmir, 1947-48; mentioned in despatches; Instructor, Defence Services Staff College, Wellington, 1951-54; promoted Col., 1955; Dy. Commandant, Infantry School, Mhow, 1955-57; promoted Brigadier, Feb. 1957; Commanded a Brigade in J. & K., 1957-60; Brig. General, Staff A Corps, 1962-63; promoted Major-General, 1963; G.O.C., 2nd Mountain Divn., 1963-64; Dir., Military Trg., Army Hqrs., 1964-66; promoted Lt. General, June 1966; Dy. Chief, Army Staff, 1966-67; G.O.C., Corps, 1967-69; Colonel, Punjab Regt., since 1967. Address: Hqrs., Eastern Command, Fort William, Calcutta 21.

AZAD, Brajnandan, B.A. (Hons.), Editor, The Indian Nation (daily), Patna. b. April, 1908. Was a Reporter, The Searchlight, 1931-35; Sub-editor, The Searchlight, 1935-37; Reporter, The Indian Nation, 1937-44; Editor, The Aryavarta (Hindi daily), 1944-48; London

Correspondent of The Indian Nation & The Aryavarta, 1948-50; Editor, The Indian Nation Evening News, 1951-53; Jt. Editor, The Indian Nation, 1953-64; Associate Editor, The Indian Nation, 1965; has visited Western Europe, U.S.A., Japan, Burma etc. Address: Muzharul Haque Path, Patna.

AZNAM, His Excellency Raja Aznam bin Raja Haji Ahmed, B.A. (Hons.) in Geography, Malaysian High Commissioner in India. b. Jan. 21, 1928; Educ.: Univ. of Malaya, Singapore. Malayan Civil Service, 1953-56; Second Seey., Malaysian Embassy, Bangkok, 1957-59; His Malaysian Majesty's Consul, Songkhla, Thailand, 1958-60; Charge d'Affaires/First Seey., Embassy of Malaysia, Cairo, 1960-62; Principal Asstt. Seey. (Political), Min. of Foreign Affairs, Kuala Lumpur, 1962-65; Dy. Permanent Rep. for Malaysia to the U.N., New York, 1965-67. Address: High Commission for Malaysia in India, 3, Link Road, Jangpura, New Delhi-14.

BACHCHAN, Harbans Rai, M.A. (Alld.), Ph.D. (Cantab.), Soviet Land Nehru Award, 1966, Sahitya Academi Award, 1969, "Latus Prize" for 1970 by Literaturnaya Gazeta of Moscow; member, Rajya Sabha, since April, 1966, Hindi poet. b. Nov. 27, 1907; Educ.: Allahabad, Banaras and Cambridge. Producer, A.I.R., Allahabad, 1955; Officer on Special Duty (Hindi), External Affairs Ministry, New Delhi. 1955-65. Publications: Over 50. Madhushala, 1935, Khadi Ke Phul, 1948 Eng. Tr. The House of Wine, 1950; Jan-Gita; Tribhangima (Poems), 1961; Nai Purane Jharokhe (essays), 1962; Char Kheme Chaunsath Khunte (Poems), 1963; Do Chottamen, 1965; W. B. Yeats & Occultism (English), 1965; Katti Pratimaon Ki Aoaz (1968); Kya Bhulum Kya Yad Karum (Autobiography), 1969, etc. Address: 13, Willingdon Crescent, New Delhi 11.

BADAL, Prakash Singh, B.A., Chief Minister of Punjab since March 27, 1970. b. 1926; Educ. Forman Christian Coll., Lahore. Has been a close associate of Sant Fatch Singh; made his political debut in 1957 when he was elected to the Punjab Vidhan Sabha on Congress ticket in the general election from the Malout constituency; left the Congress and joined the Akali Dal; was returned to the Vidhan Sabha in the 1969 mid-term poll on Akali ticket; was a Cabinet Minister in the Gurnam Singh Ministry in charge of Comm. Development, Panchayati Raj, Animal Husbandry, Dairying and Fisheries. Address: Chandigarh.

BAHADUR, Raj, Ambassador to Nepal, since Jan. 1968. b. Aug. 21, 1912; Educ.: Bharatpur; Maharaja's High School and Maharaja's Coll., Jaipur; Agra Cell. and St. John's Coll., Agra. Jailed in the Quit India Movement; Vice-Pres., Bharatpur D.C.C.; travelled extensively abroad; elected to the Indian Constituent Assembly, 1948; Advocate, Supreme Court of India, 1949-51; Secy., Cong. Party in Parliament, 1950-52; member: Rajasthan P.C.C.; A.I.C.C.; Dy. Min. for Communications, 1951-56; Min. of State in the Min. of Communication, 1956; Min. of Transport and Communications, 1957-62; M.P., 1952-66; Min. for Shipping, 1962-63; Min. of Transport, Govt. of India, 1964-66; Min. of I. & B., 1966-67. Address: C/o External Affairs Ministry, New Delhi.

BAHADUR SINGH, Indar Jeet, M.A. Oxon., B. Litt. (Oxon), Dip. in Econ. and Pol. Sci. (Oxon), Bar-at-Law, Middle Temple, Indian Ambassdor to UAR, since Sept. 1969 with concurrent accreditation to Libya and Yemen. b. June 12, 1964; Educ.: Queen's Royal Coll., Trinidad; Oxford Univ. Dy. Secy., Ext. Affairs Min., 1949-50; First Secy. and later Counsellor, Indian Embassy, Washington, 1950-53; Ag. Indian Consul-Gen.,

New York, 1951; Pol. Adv. to the Indian Chairman, Neutral Nations' Repatriation Commission in Korea, 1953-54; Counsellor and Charge d'Affaires, Indian Embassy, Peking, 1955-58; Commr. for the Govt. of India in British East Africa, the Federation of Rhodesia and Nyasaland and Consul-Gen. of India in the Belgian Congo and Ruanda Urundi, 1958-61; Political Officer, Sikkim and Bhutan, 1961-63; Jt. Seey., Min. of Ext. Affairs, 1964-67; Indian Amb. to Italy with concurrent accreditation to Malta as High Comm., 1967-69; Seey. Gen., Ind. Del. to Second Afro-Asian Conference at Algiers, 1966. Address: C/o Min. of Ext. Affairs, New Delhi.

BAJAJ, Kamalnayan, Economic Tripos Pt. I, Cambridge Univ., Hindi Visharad, Prayag, M.P., business man and industrialist. b. Jan. 23, 1915; Educ.: Sabarmati Ashram, Gujarat Vidyapeeth, Ahmedabad, Satyagraha Ashram, Wardha, under Mahatma Gandhi and Acharya Vinoba Bhave; Colombo and Cambridge Univ., England. Chairman and Mg. Dir., Bachhraj & Co. Ltd.; Chairman: Mukand Iron & Steel Works Ltd.; Bajaj Electricals Ltd.; Bajaj Auto Ltd.; Dir.: several sugar, cement, and textile companies, etc.; Trustee, Gandhi Smarak Nidhi, etc.; Chairman, Blind Relief Assn., Bombay; Jamnalal Bajaj Seva Trust and Shiksha Mandal, Wardha; Treasurer, Indian Parly. Group. and Congress Party (O) in Parliament. Address: 51, Mahatma Gandhi Road, Bombay-1.

BAKHSHI GHULAM MOHAMMED, M.L.A. (Jammu & Kashmir), Ex-Prime Minister, Jammu and Kashmir. b. July 21, 1907. Began life as a school teacher; was imprisoned during the freedom movement in the State; worked underground during the movement for Responsible Govt. in Kashmir, 1938; organised the Peace Brigades and Border Scouts in Kashmir and Jammu during the tribal raids of 1947; Dy. Prime Minister in the Sheikh Abdulla Cabinet till Aug. 8, 1953; re-elected Leader, National Conference Parly. Party, after the General Elections in the State, 1957 and 1962; Prime Minister, J. & K. State, 1953-63; resigned under the "Kamaraj Plan" for Party Work, Sept. 1963; arrested and detained under D.I.R. on Sept. 22, 1964; released on health grounds, Dec. 1964; elected M.L.A., J. & K., on National Conference ticket, Feb. 1967. Address: Srinagar.

BALAMANI Amma, Smt. N., Writer & Poet. b. July 19, 1909; Educ.: Privately. Literary career: awarded 'Sahitya Nipuna' Medal instituted by the Maharaja of Cochin, Feb. 1963. Won the Kerala Sahitya Academy award, 1964 and Central Sahitya Academy award, 1966, for the book of Poems, Muthassi. Publications: Mother and 18 other books of poems. Address: C/o V. M. Nair, Mg. Editor, Mathrubhumi, Calicut, Kerala.

BALIGA, B. S. D., General Manager, Central Railway, since March 1, 1967. b. Sept. 29, 1914. Joined the East Indian Rly. as Asstt. Engineer, May 1937; worked in several responsible capacities such as Exec. Engineer, Officer on Special Duty (Regrouping) and Dy. Chief Engineer, Ganga Bridge Project; Divisional Supdt., 1958-59; visited the United Kingdom and France under U.N. Fellowship for the study of bridge engineering and modern railway track; appointed Engineer-in-Chief, North East Frontier Rly., March 20, 1959; later became Chief Engineer, D. B. K. Rly. Projects; Director, Research, Designs and Standards Organisation, 1962; Chief Engineer (Construction), Eastern Railway, 1962-65; Director, Civil Engineering, Railway Board, 1965-67; on deputation to U.S. on study tour, (June 17-Aug. 14, 1967). Address: General Manager, Central Railway, Bombay 1.

BALKRISHNA, N., B.Sc. (Engg.), M.I.E. (India), M.I.R.T.E. (England), M.I.R.T., J.P. & Hon. Presidency Magistrate, Technical Adviser-cum-Consultant, since July 1967. b. July 21, 1912, at Guruvayur; Educ.: Banaras Hindu Univ.; had training in the U.K. Joined the B.E.S.T., Bombay, 1934; rose to the position of Chief Engineer; Dy. Gen. Manager, 1957-59; Secy., Assoc. of Indian Automobile Manufacturers, 1959-67; Hon. Gen. Secy.: Indian Institute of Road Transport; All India Council of Safety First Assoc. of India; Secy., Maharashtra State Cttee.; member: Development Council for Automobiles, Automobile Ancillary Industries, etc., Govt. of India, Min. of Industrial Development; Road & Inland Water Transport Adv. Cttee., Govt. of India, Min. of Transport & Communications; Road Transport Devpt. Cttee.; Indian Roads Congress; and several other Cttees. of the Govts. of India and Maharashtra; Patron & Past Pres., Keraleeya Samaj, Bombay; Vice-Chairman, Kerala Devpt. Council, Bombay; is connected with several sports assocs. in Bombay. Address: Flat No. 1, Neel Tarang, 208-210, Veer Savarkar Marg, Mahim, Bombay 16.

BAMZAI, Kashi Nath, B.A., LL.B. Registrar of Newspapers for India, since July 1966. b. July 1, 1915; Educ.: Sri Pratap Coll., Srinagar; Lucknow Univ. Courted jail in Kashmir Bread Movement, 1932; Pres., Jammu & Kashmir Students Union, 1937-38; joined the editorial staff of the National Herald, 1939; Member, Working Cttee., All India Students Congress, 1941-42; started legal practice at Kashmir, 1943; enrolled as active member, Jammu & Kashmir National Conference; with the Daily National Standard, Bombay, 1944-45; Asst. Editor, Birtz and then its special correspondent at Delhi, 1946; Director of Information, Jammu & Kashmir Govt. at Delhi, 1948; Officer on Special Duty (Kashmir Publicity), Min. of I. & B., Govt. of India, 1949-65; Chief Press Adviser, 1965-66. Address: 91, Lodi Estate, New Delhi.

BANDODKAR, Dayanand B., Chief Minister, Goa, Daman & Diu. b. 1911. A staunch nationalist; participated in the Quit India Movement, 1942; was arrested by the Portuguese for his nationalistic activities, May 13, 1956 and imprisoned for three months; helped the underground workers during Goa's freedom struggle: a linguist, knowing Portuguese, French, Hindi, Konkani & Marathi; is connected with several social organisations and is a philanthropist; is a leading mine owner of Goa. Address: Panaji, Goa.

BANERJEE, Bhabendra Nath, B.Sc., LL.B., Cal., LL.M., London, Barrister-at-Law, Secy., Rajya Sabha, since Oct. 1963. b. Jan. 8, 1916; Educ.: Scottish Churches School and Coll.; Univ. Law Coll., Calcutta; London School of Economics; Inner Temple. Joined Bengal Judicial Service, 1942; Asstt. Solicitor, Min. of Law, Govt. of India, 1950-52; Asstt. Legal Adv. & Legal Adv. to the Indian High Commr. in London, 1952-55; Dy. Secy., Min. of Law, Govt. of India, 1956; Dy. Secy., Rajya Sabha Secretariat, 1956-59; Jt. Secy., Rajya Sabha Secretariat, 1956-59; Parliament House, New Delhi.

BANERJI, S. K., B.A., Seey. (E), Min. of External Affairs, since July 1970. b. Oct. 21, 1913; Educ.: Allahabad Univ. and New Coll., Oxford. Joined I.C.S., 1937; First Secy. and later, Charge d'Affairs, Indian Embassy, Tehran, 1947-49; Dy. Secy., Min. of Ext. Affairs, 1949-51; Indian Dy. High Commr., Lahore, 1951-54; Consul-Gen. of India, San Francisco, 1954-56; Min. of India to Syria, 1956; Indian Amb. to Syria, 1957-58; High Commr. for India to Malaya

and Commr. to Singapore, Sarawak, Brunei and North Borneo, 1958-59; Joint Secy., Ext. Affairs Min., 1960; Chief of Protocol, 1961-64 and Addl. Secy., Ext. Affairs Min., Jan.-Oct. 1964; Amb. to West Germany, Dec. 1964-67; Amb. to Japan, Nov. 1967-70. Publications: Official Reports. Address: Ministry of External Affairs, New Delhi.

BANSAL, Ghamandi Lal, M.A., LL.B., Secy.-Gen., Federation of Indian Chambers of Commerce and Industry; ex-Dir., Central Board, the State Bank of India. b. Dec. 3, 1914; Educ.: A. V. Mission School, Ranikhet; Govt. Cell., Almora; Lucknow Univ. Represented Intnl. Chamber of Commerce at 5th Session of ECAFE; attended Intnl. Labour Cfces., Geneva, 1950, 1951; toured U.S.A. as Leader Specialist on American Govt. invitation; Congress M.P., Jhajjar-Rewari constituency, 1952-57; delegate to the 12th Session of ECAFE; delegate: Indian Industrial Delegation to Europe and America, 1957; U.N. Cfce. on Trade and Devpt., 1964; Indian Govt. Reps on the Steering Cttee. of World Bank Study Team on Local Transportation, 1965. Publications: India and Pakistan—An analysis of economic, mineral and agricultural resources. Address: 28, Ferozeshah Road, New Delhi.

BANSI Lal, B.A., LL.B., Chief Minister, Haryana, since May 21, 1968. b. Oct. 10, 1927 at Golagarh village. Hissar District; Educ.: Passed Prabhakar and B.A. examinations privately; took law degree from Law Coll., Jullundur. Set up practice in Bhiwani, 1956; member, Rajya Sabha, 1960-66; was Secv., Loharu Praja Mandal; was Pres., Hissar District Congress Cttee.; elected to the Haryana Legislative Assembly from Tosham Constituency, 1967 and in the mid-term poll, May 1968. Address: Chandigarh.

BARNES, Leo, B.A., LL.B., General Secretary, The National Union of Seafarers of India. b. Nov. 6, 1932; Educ.: Bombay. Was a seaman; joined seamen's movement, 1966. Address: 308, "Perin", Nariman Street, Fort, Bombay 1.

BARUA, Hem, M.A., M.P., Writer in Assamese and English. b. April 22, 1915; Educ.: Calcutta. Jailed in Quit India Movement, 1942; M.P., since 1957; visited Burma, 1950; U.S.A., U.K., France, Switzerland and Italy, 1953-54, Soviet Union, 1958, Israel, 1965. Thailand, Cambodia, Laos, Malaysia, Singapore, 1965. Publications: Assamese: Sagar Dekhicha; Sanmihali; Ae Gaon Ae Git; Adhunik Sahitya; Sahitya Aru Sahitya; Balichanda; Ranga Karabir Phul; Konnaki; Cupid Aru Psyche etc. etc.; English: August Revolution in Assam; Fairs and Festivals of Assam; Modern Assamese Poetry, (An Anthology); The Red River and the Blue Hill; Idle Hours 1961; Folksongs of India; Assamese Literature, Lashminath Bezbaroa. Address: 83-D, South Avenue, New Delhi.

BASANT, Tirth, Sahitya Akademi Award (1959), G. J. W. Foundation Award & Gold medalist (1962), Sahityakar. b. Sept. 7, 1909; Educ.: Sind. Business Exec. in Japan, 1929; Business & Teaching profession in Persia, 1931-35; Editor, Advance India 1940; Head master, English Adult School, Hyderabad; Editor, Sharnai, 1962-65; Pres., Sindhu Samaj, Delhi, 1963-65. Publications: Chingoon; Vasant Vakha; Kanwar; Sahitya-Saar; Rasgolo; Kutta-shalla; Yatri; Shair-Jo-Janajo; Ujooro; Soul Force; Light of Life; Culture; Philosophy of History; Progress; Creative Criticism, etc.: Translated Nehru's Autobiography, Tagorè's Chitra, Shakespeare's Antony & Cleopatra. Address: BK 16/426, Lodi Colony, New Delhi-3.

BASAVAPUNNAIAH, Makineni, Member, Polit Bureau, C.P.I.(M.); ex-M.P. b. Dec. 14, 1914; Educ.: Noble Coll., Masulipatam; A. C. Coll., Guntur; studied upto B.A. Class. Secy., Guntur Dist. Communist Cttee., 1939-42; Secy., Andhra Prov. Students' Federation, 1937-39; Secretariat member, Andhra Communist Cttee., 1942-56; Secy., Andhra Provincial Cttee., 1957-58; member, Central Cttee., C.P.I., 1948-58. Publications: A number of political pamphlets. Address: 49, Lake Place, Calcutta 29.

BASU, Jyoti, B.A., Bar-at-Law, Ex-Deputy Chief Minister-in-Charge of Home, West Bengal; Member: Polit Bureau, Central Cttee. & W. Bengal State Cttee. of C.P.I.(M), since 1964. b. July 8, 1914; Educ.: Stp Xavier's Coll. and Presidency Coll., Calcutta. Member: Communist Party of India, since 1940; Central Exe. Cttee. and National Council, C.P.I.; member, West Bengal Cttee., C.P.I.; detained without trial and imprisoned as undertrial on several occasions since 1948; was leader of the opposition, West Bengal Assembly; Dy. Ch. Min., W. Bengal, March-Nov. 1967. Address: 55, Hindustan Park, Calcutta 29.

BASU, Dr. K. S., Fellowship of the International Academy of Management (1960), Charat Ram Foundation Award (1965), Wallace Clark International Award for his contribution to scientific management in the international field (1966). Sir Jehangir Ghandy Medal for Industrial Peace (1967). Director, Jamnalal Bajaj Institute of Management Studies, Bombay Univ. b. Feb. 8, 1915, Chief Medical Officer, Hindustan Lever, 1948-52; Personnel Manager, 1952-56; Personnel Director and Member of the Board, 1956-65; Pres.: All India Management Assoc., 1963-66; Bombay Management Assocn., 1961-64; Bombay Productivity Council, 1960-63; Indian Institute of Personnel Management, 1964; Pres., Asian Assn. of Management Orgn., 1965; Vice-Pres., C.I.O.S. (International Assn. of Scientific Management); led the Indian Management delegation to the Twelfth Confee. of Scientific Management, Sydney and Melbourne, 1960; 14th at Rotterdam, 1966; IPCCIOS Confee., Tokyo, 1965; Hong Kong 1968. Address: 164, Backbay Reclamation, Bombay 20.

BASU, Manoje, B.A., Bengali Writer; recipient: Sahitya Akademi Prize 1966, Saratchandra Chatterji Memorial Prize and Medal (Calcutta Univ.), 1960, Narsingdas Prize (Delhi Univ.), 1954, Motilal Prize (Amrita Bazar Patrika). b. July 26, 1901; Educ.: Calcutta. Joined N. C. movement in student days; visited Ceylon, China, Russia and Central Asian countries and almost all parts of Europe. Publications: Nishi Kutumba; Chhabi ar Chhabi; Path Ke Rukhbe Premik: Jal Jangal; Nahin Jatra; Rani; Ghilmil; Bristi Bristi Bhuli Nai, Manush Garar Karigar, Rupabati, Bon Keta Basat Rajkanyar Sayambar, Kingsuk; Setubandh; Srarnasajjai; Kachar Akash; Khadyot, Sesh Lagna; Dak Banglo; Nutan Prabhat; Plaban; Chin Dekhe Elam; Sonieter Deshe Deshe; Natun Europe Natun Manush, etc.; works have been translated into English, Hindi, Gujarati, Malayalam etc. Address: P560, Lake Road, Calcutta 29.

BATRA, Rear Admiral Rabindar Nath, Commandant, National Defence Academy, since June 8, 1968. b. Jan. 19, 1919; Educ. Bishop Cotton School & Coll., Simla, 1927-37. Joined the Navy, 1938; Naval training in U.K., 1938-42; Lieut., 1942; qualified in Anti-Submarine Warfare in H.M.S. OSPREY, 1943; war service in the Atlantic and Indian Oceans; held important positions in the Indian Navy and Commanded INS 'Ranjit', 'Tir', 11th Destroyer Squadron, INS 'Venduruthy', 1945-62. Captain, INS Mysore, 1963; Captain, Naval Barracks,

1963-65; Naval Attache, Washington and Naval Adviser, Ottawa, 1965-67; Admiral Supdt., Naval Dockyard, Bombay, 1967-68. Address: National Defence Academy, Khadakvasla, Poona 23.

BELTCHEV, H.E. Mr. Nayden, Ambassador of Bulgaria to India and concurrently accredited to Ceylon and Nepal. b. 1921; Educ.: Law, Univ. of Sofia. Held various administrative and public assignments, 1944-58; has since served as Counsellor, Bulgarian Embassy, London and as Ambassador to Ghana; Chief of the African Division in the Min. of Foreign Affairs at Sofia upto 1969. Address: 198, Golf Links Area, New Delhi 3<sub>4</sub>

BENDRE, Narayan Shridhar, B.A. (Agra), G.D. Art, Bombay, Padma Shri (1969), Painter; Vice-Pres. National Academy of Art, New Delhi, since 1962. b. Aug. 21, 1910; Educ.: Holkar Coll., Indore; School of Art, Indore, Art Students' League, New York, Y.W.C.A., New York. Artist-cum-Journalist at Visitors' Bureau, Kashmir, 1936-39; Free lance artist at Bombay, 1939-50; visited U.K., Middle European countries and U.S.A., West Asia; Czechoslovakia, Yugoslavia and Poland; member: First Indian Cultural Delegation to China, 1952; Gen Council and Exec. Board, Lalit Kala Akademi; Pres. Art Soc., of India, Bombay, 1957; has won numerous prizes at major Art Centres in India; held one man shows at Bombay, 1943, 1950, 1957, 1959 and 1968; Dean, Faculty of Fine Arts, M. S. Univ., Baroda, 1959-66. Address: 10, Kala Nagar, Bandra-East, Bombay 51.

BEWOOR, Gopal Gurunath, Param Vishishta Seva Medal (1969), General Officer Commanding-in-Chief, Southern Command, since July 1969. b. Aug. 11, 1916; Educ.: R.I.M. Coll., Dehra Dun. Commissioned in the Army, Aug. 1936; served in the old N.W.F.P. & Burma, World War II, commanded 2 Dogra in Kashmir operations; Dir., N.C.C., 1948-51; promoted Brigadier, 1952 and Major-General, 1959; was Chief of Staff, Western Command; was Dir., Military Trg., A.H.Q.; promoted Li General, Nov. 1964; was Dy. Chief of Army Staff. Address: HQ. Southern Command, Poona 1.

BHABHA, C. H., M.A., B.Com., J.P., Vice-Chairman: Capital Issue Control Cttee.; Dir.: L.I.C. of India; Investment Corpn. of India; Tata Engg. and Locomotive Co. Ltd.; Andhra Valley Power Supply Co. Ltd.; Swadeshi Mills Co. Ltd.; Spencer and Co. Ltd. b. July 22, 1910; Educ: Bombay. Commerce Member, Interim Govt. of India, Sept. 1946; Member, Works, Mines & Power, Govt. of India, Nov. 1946; Commerce Min., Govt. of India, 1947; resigned, April, 1948; Leader, Indian Delegation to and elected Vice-Pres., World Trade Cfce., Havana, Nov. 1947; Vice-Chairman, Rural Banking Enquiry Cttee.; Chairman, Indian Banks Assoc. (1955-61); Ex-Chairman, National Shipping Board. Address: 49, Cuffe Parade, Colaba, Bombay 5.

BHABHA, Jamshed Jehangir, Industrialist. b. Aug. 21, 1914, Bombay; Edwe.: Cathedral High School, Bombay; Gonville and Caius Coll., Cambridge; Lincoln's Inn, London. Director: Tata Industries Pvt. Ltd.; Tata Services Ltd.; Indian Tube Co. Ltd.; Stewarts & Lloyds of India Ltd., etc.; Chairman: Tata Press Ltd., Indian Cement Co. (1937) Ltd., Trustee: Sir Dorabji Tata Trust, J. N. Tata Endowment, Lady Tata Memorial Trust; Trustee in Charge: National Centre for the Performing Arts; member: Board of Trustees, Prince of Wales Museum of Western India; Govg. Board, Tata Institute of Social Sciences; Governing Council, National Institute of Design, Ahmedabad. Homi Bhabha Fellowships Council; Rotary

Club of Bombay; Willingdon Sports Club; Council Member, Indian Institute of Science. Bangalore. Address: Res.: 12, Little Gibbs Road, Malabar Hill, Bombay 6. Office: Bombay House, 24, Bruce Street, Fort, Bombay 1.

BHAGAT, Dhanraj, Sculptor; Incharge, Sculpture Section, Coll. of Arts, New Delhi. b. Dec. 20, 1917; Educ.: Lahore. Won Governor's Gold Medal at Akademi of Fine Art, Calcutta; exhibited all over India and abroad; visited U.S.A. on Rockefeller fellowship and toured throughout the continent and England; group shows and nine one man shows of sculpture won Lalit Kala Akademy Award (1961); and Sahitya Kala Parishad Award (1969); Participant, International Triniele, N. Delhi, 1968; member, Indian Cttee., of the Intnl. Assocn. of Plastic Arts, Paris. Address: 22, Hardinge Avenue, New Delhi.

BHAGAVADACHARYA, Panditraj Sarasvat Sarvabhauma, Swami, Sanskrit Poet and Philosopher; disciple of Swami Rama Manohara Prasada Acharya, Ayodhya. b. 1880 at Sialkot: Educ.: Ayodhya, Kasi, Mithila. A Sanyasi of the Shri Sampradaya; initiated into the order by the great Acharya Swami Shri Rama Manohara Prasadaji of the Shri Bindugadi of Ayodhya. Publications: about 100 in various languages incl. authoritative writings on the Vedas, Upanishads, Vedants, etc. and epics in Sanskrit language like Bharataparijatam, Parijatapaharah, Parijata Saurabham and Ramananda Digvijayam, Sama Samskara Bhashyam on Samaveda; Yajuh Samasankar Bhashyam on Yajurveda; Vaidic Bhashyam and Ramananda Bhashyam on Brahmasootram of Vyasa; Bhagavadbhashyam of Bhagavadgita; Vishishtadwaita Darshanam; Lekna Ratnamanjoosha; Gurjar Shabdanu, Shasana; Gandhi Kavya (Gujarati). Address: Rajnagar Society, Ahmedabad 7.

BHAGWATI, Mr. Justice Prafullachandra Natvarlal, B.A. (Hens.) (Maths.), LL.B., Chief Justice, Gujarat High Court, since Sept. 16, 1967. b. Dec. 21, 1921; Educ.: Elphinstone Coll. and Govt. Law Coll., Bombay; B.A. (Hens.) 1st Class, 1941; LL.B., 1945; was Dakshina Fellow in Elphinstone Coll. Courted jail in the 1942 freedom movement; apptd. fellow in Govt. Law Coll., Bombay; started practice, Bombay High Court, Feb. 1948; also practised in the Supreme Court and other High Courts; Judge, Gujarat High Court, July 1960-Sept. 1967; Actg. Governor, Gujarat State, Dec. 7-25, 1967. Address: Gujarat High Court, Navrangpura, Ahmedabad 9.

BHAKTAVATSALAM, M., Ex-Chief Minister, Madras; Chairman, Gandhi Smarak Nidhi, Tamil Nadu, since 1965. b. 1897. Gave up practice at the Bar, 1927; Dy. Mayor, Madras Corpn., 1936; member and Vice-Pres., Chingleput Dist. Board, 1932-38; Vice-Pres., T.N.C.C., 1935; Secy., T.N.C.C. for a number of years; Member, AICC; Parly. Secy. to the Min. for Local Adm., 1937; Public Works Min., Madras, 1946-52; Convener, Bharat Sevak Samaj (Tamil Nad Branch); Min. for Agr., 1954-57; Min. for Home, 1957-62; Min. for Fin. and Educ., 1962-63; elected Leader, Madras Leg. Cong. Party. Sept. 24, 1963; Chief Minister, Madras State, 1963-67; Pres., Farmer's Forum, Tamil Nadu, 1967. Address: "Mallika", Mylapore, Madras 4.

BHARDE, Trimbak Shivram, B.A., LL.B., Speaker, Maharashtra Leg. Assembly, since March 17, 1962. b. May 25, 1914; Educ.: Ahmednagar. Joined Congress, 1936; courted jail in the freedom movement; became Editor, Sanghshakti, weekly, 1946; introduced many reforms as Chairman, Exec. Cttee., Ahmednagar

Dist. School Board; was Secy., Maharashtra Regional Congress Cttee.; elected M.L.A., Bombay from Ahmednagar, 1957; Minister for Co-operation, Bembay State, till April 1960 and of Maharashtra, 1960-62; is Chairman: Maharashtra State Bharat Sevak Samaj; Werking Group, Khadi & Village Industries Board, Maharashtra; Samyukta Sadachar Samiti, Maharashtra; Leprosy Adv. Board; Dt. Land Dvpt. Board, Ahmednagar; Pres., Maharashtra Harijan Sewak Sangh; Address: "Nandanvan" 4, Little Gibbs Road, Malabar Hill, Bombay 6.

BHARATI, Dr. Dharam Vir, M.A., Ph.D., Editor, Dharmayug, Bombay, since 1960. b. Dec. 25, 1926; Educ.: Allahabad Univ., Allahabad. Lecturer, Allahabad Univ. upto 1959; joined Times of India as Editor of Dharmayug, 1960. Publications: Two novels; two anthologies of poems; three story collections; one collection of one-actdramas; one full length verse drama; three books of literary criticism; one anthology of 150 (translated) modern poems from America and Europe and two books on socio-cultural subjects. Address: 6, Shakuntal, Sahitya Sahawas, Bandra East, Bombay 51.

BHARGAVA, Mr. Justice Vashishtha, B.Sc. (Hons.), M.Sc. (Allahabad), Judge, Supreme Court, since Aug. 1966. b. Feb. 5, 1906; Educ.: Govt. High School, Meerut; Govt. High School, Pratapgarh; Ewing Christian Coll., Allahabad; Allahabad Univ. Joined the I.C.S., 1930; Jt. Magistrate and Asstt. Collector, U.P., 1930-35; Civil and Sessions Judge, U.P., 1935-37; Dist. and Sessions Judge, 1937-47; Addl. Commr., Food & Civil Supplies, 1947-48; Judicial Secy. & Legal Remembrancer, U.P. Govt., 1948-49; Judge, 1949-Jan. '66, and Chief Justice, Feb. 1966-July 1966, High Court Allahabad; Chairman, Cttee. on Telangana Surpluses, 1969. Address: Supreme Court, New Delhi.

BHASIN, Prem, M.A. (Political Science) (Lahore), Gen. Secy., Praja Socialist Party, since Jan. 31, 1965. b. Dec. 27, 1917, at Rawalpindi; Educ.: D.A.V. School and College, Rawalpindi; M.A. from Dyal Singh Coll., Lahore, 1939. Joined the Congress Socialist Party, 1937; courted jail in the freedom movement; elected to the National Exec., Socialist Party of India, 1947; Jt. Secy., Socialist Party of India, 1948-52; Jt. Secy., P.S.P., Oct. 1952; Secy., First Asian Socialist Cttee., Rangoon, Jan. 1953; toured Sweden, Norway, Denmark, U.K., France, Switzerland, West Germany, Austria, Yugoslavia, Italy, Israel, & Pakistan, July-Oct. 1953; P.S.P. rep. on the Asian Socialist Cfee. Bureau, 1956-57; member, Central Parly. Board, S.S.P., 1964-65. Publications: Pakistan and its Implications—1947; Socialism in India, 1968. Address: 18, Windsor Place, New Delhi.

BHAT, Atmaram Raoji, "Sampada", Marathi Commercial monthly, Poona. b. M.Com., 1905; Educ.: Sydenham Coll. of Commerce and Economics, Bombay; Sir James Begbie Commerce Scholar, 1925-27 and Govt. Fellow, 1927-29; Business Mgr., Kesari till 1952; founded the Maharatta Chamber of Commerce and Industries, Poona, 1934; its Hon. Secy. and Trustee, since then; Pres.: Indian Languages Newspapers' Assoc., since 1949; Federation of Assocs, of Small Industries of India, 1959-69; member: Bombay Leg. Council, 1952-64; Textile Eng. Cttee., 1952-54; Press Commn., 1952-54; National Productivity Council since 1958; Central Adv. Council of Industries, since 1965; Customs and Central Excise Adv. Council, since 1967; Press Council of India, since 1966; Central Small-Scale Industries Board since 1957; Export-Import Adv. Council since 1964; Export Inspection Council, since 1963; Small Newspapers Enq. Cttee., 1964-65; Dir., State Bank of India, Central Board;

Vice-Chairman, Poona Metropolitan Regional Planning Board. Address: 1218, Sadashiv, Poona 30.

BHATIA, Prem Narain, B.A., High Commr. for India in Singapore. b. Aug. 11, 1911; Educ.: D. A. V. High School, Lahore; Govt. Coll., Lahore, Panjab Univ. News Editor, A.I.R. 1939-42; Indian Army, 1942-45; Dir. of Public Information, Govt. of Bengal, 1945-46; Pol. Correspondent & Asstt. Editor of the Statesman, Calcutta & New Delhi, 1946-58; Editor, The Tribune, 1959; Delhi Editor: The Times of India, 1960-62; Indian Express, 1963-65; simultaneously India Correspondent of the (Manchester) Guardian; Public Relations Adv. to the Indian Amb. in Moscow, 1948; High Commr. in Kenya, 1965-68, 1968-69; extensively travelled in Europe, Asia, the Middle East & the U.S.A. (incl. two long lecture tours in the U.S.A.). Address: C/o External Affairs Ministry, New Delhi.

BHATT, Jyoti Manshanker, Post-Diploma in Painting, President's Gold Plaque (1957), Painter. b. March 12, 1934; Educ.: Fine Arts Coll., M. S. Univ. of Baroda, Baroda; awarded President's Gold Plaque under the auspices of the Lalit Kala Akadami, 1957 and a National Award, 1963; Cultural Scholarship of Govt. of India in Painting (1957-59) at Baroda; Secy., Baroda Group of Artists, 1956-61; Founder Member of "Group 1890"; Italian Govt. Scholarship for painting, 1961-62; Fulbright Award (1964) and J. D. R. IIIrd Fund Award (1965) for painting and graphic Arts—U.S.A.; teaches painting in the Deptt. of Painting, Faculty of Fine Arts, M. S. Univ., Baroda. Address: Fine Arts College, University Road, Baroda 2.

BHATT, Ravishanker Santoshram, B.A., Bombay, B.A. (Hons.), Lond., M.A., Lond., Chairman, Unit Trust of India, Bombay. b. Dec. 1909; Educ.: Samaldas Coll., Bhavnagar; Bombay School of Economics and Sociology; London School of Eco. and Pol. Sc., London, Secy., Industrial Investment Trust, 1936-40; Secy., Diwan's Office, Bhavnagar, subsequently Nayab Diwan (Fin. and Rly.), 1940-47; Fin. Officer, Oriental Govt. Security Life Assurance Co., 1948-53; Mg. Dir., Bombay State Fin. Corpn., 1953-57; member, Tariff Commn., 1957-60; Exec. Dir., Indian Investment Centre, 1960-64. Publications: Literary essays and Spl. studies on Economics and financial subjects in various journals. Address: Ewart House, Bruce St., Bombay 1.

BHATTACHARJEE, Jyotish, Diploma in Commercial Art, Painter: Art Exec.. Directorate of Commercial Publicity, Min. of Foreign Trade, Govt. of India. b. Nov. 3, 1922, at Chittagong; Educ.: Govt. School of Arts and Crafts, Calcutta. Held one-man shows in New Delhi, Calcutta and Italy; worked with the Intnl. Artist Assoc., Rome, 1957-58; member, Governing Council, All India Fine Arts and Crafts Soc., New Delhi; President's plaque in 1959 and Gold Medal in 1960 for the best exhibit of the year; National Award of the Lalit Kala Akademi in 1963; paintings acquired by National Gallery of Modern Art; Lalit Kala Akademi; Baux Arts Soc., Cairo and by several others in India and abroad. Publications: Author of short stories and articles on art. Address: 15A/31, Western Extn. Area, Karol Bagh, New Delhi 5.

BHATTACHARYA, Dr. Bhabani, B.A. (Hons.), Ph.D. (Lond.), Sahitya Akademi Award (1967), Writer and Journalist. b. Nov. 12, 1906; Educ.: Patna and London Univ. Press Attache, Embassy of India, Washington, 1949-50; member, first cultural delegation to the U.S.S.R., 1951; Harvard Univ., U.S.A., 1959; delegate to: Harvard-Japanese Intnl. Seminar, Tokyo, 1960;

State guest of the Australian Govt., 1962; Prestige Award from the Univs. of New Zealand, 1962; Member, Adv. Board for English, Sahitya Akademi; Seev., Tagore Commemorative Volume Society; Ford Foundation Travel Fellowship round the World, 1969. Publications: Some Memorable Yesterdays; Indian Cavalcade: The Golden Boat (Translations from Tagore); Gandhi The Writer (.ponsored by Ford Foundation); Novels: So Many Hungers!; Music for Mohini; He Who Rides A Tiger; A Goddess Named Gold; Shadow From Ladakh; work translated into 26 languages, including 15 European languages; Editor of a selection of Tagore essays Towards Universal Man. Address: Senior Specialist, Institute of Advanced Projects, East-West Centre, Honolulu, Hawaii.

G

BHATTACHARYA, Sushil, B.A. (Cal.). Secretary, the Revolutionary Socialist Party of India; Vice-Pres., U.T.U.C.; member: National Productivity Council; Labour Adv. Board, Delhi. b. Nov. 15. 1908; Educ.: Cal. Univ. Arrested and jailed in the secret revolutionary movement, 1931-38; joined Cong. Socialist Party, 1939; was its Orgg. Secy. at Delhi; joined the R.S.P., 1940; figured prominently in the Lucknow-Barabanki conspiracy case; released, May 1946; leader, U.T.U.C. delegation to the May Day celebration, China, 1955. Publications: Hindi Book on R.S.P. Hi Kyun; Manav Samaj Ka Vikas (Hindi); Articles in The Call and Mehnatkash (Hindi weekly). Address: 780, Ballimaran, Delhi 6.

BHATTACHARYYA, Birendra Kumar, B.Sc., M.A., Sahitya Academy Award (1961), Freelance and Writer in Assamese and English. b. March 1, 1924: Educ.: Cotton Coll., Gauhati; Gauhati Univ. Asstt. Edico.: Banhi, 1945-46; Editor, Janata (Assamese), 1947-50; Editor, Ramdhenw, 1953-63; Editor, Sadiniya Navayug (1963-67), translated Tagore short stories under Sahitya Akademi Scheme. Publications: Rajpathe Ringiai (The call of the main street); AI (Mother) (Novel); Kolong Ajiu Boi, Iyaruingam (Novel) 1961, Satsari (short stories) 1964; Shatghni (Novel) 1964, Nashtachandra (Novel) 1968, Mrityunjay (Novel) 1970. Address: Kharghuli, Development Area, Gauhati-1.

BHATTACHARYYA, Chapalakanta, M.A., B.L., M. P. (Lok Sabha), Bengali Author. b. Jan. 1901; Educ.: Orthodox Sanskrit Schools; Calcutta Aryan Inst.; Presidency Coll., Cal. Univ. Advocate, Calcutta High Court; editorial staff of Forward of late Deshbandhu C. R. Das; Congress worker since 1920; member: P.C.C. and A.I.C.C.; Indian Cultural Academy; Intnl. Sanskrit Inst.; Pres., All India, Newspaper Editors' Cfee.; Dean of Faculty and Head, Dept. of Journalism; member, Senate and Syndicate and Academic Councit, Calcutta Univ.; Vice-Pres., Sanskrit Sahitya Parishad, Bengal Akhil Bharat Devabhasa Parishad; member, First Press Council of India; was Editor, The Ananda Bazar Patrika and Editor-in-Chief, The Janasevak. Publications: Congress in Evolution: Radcliffe Award—a case for Revision in English; and several works in Bengali. Address: 24A, Hemendra Sen Street, Calcutta 6.

BHAVE, Acharya Vinoba, Social Worker. b. Sept. 11, 1895, in Gagoda, Kolaba Dist., Maharashtra; Educ.: Gagoda; Bareda Coll., Baroda. At the age of 10, took a vow of celibacy and dedicated his life to the service of the country; joined the Sabarmati Ashram, 1916; was made the head of the new Ashram at Wardha; started another hermitage at Paunar, near Wardha; was named by Gandhijf as his first rep. in the individual C. D. movement, 1940; imprisoned in the Freedom movement; originator of the Bhoodan Yagna Movement; successfully persuaded the landlords to donate land, for

the landless poor; has travelled on foot over 40,000 miles since Sept. 1951 to promote the cause of Bhoodan which has now reached the phase of Gramdan and Gram Rajya; undertook peace mission in dacoit infested areas of Bhind and Morena Dts. of M. P. 1960, where 20 dacoits have surrendered; toured Rangpur and Dinajpur Dts. of E. Pak. in connection with Bhoodan Movement, 1962; has studied all religions; is a linguist, knows all Indian languages. Publications: Several Marathi and Hindi Books of deep scholarly nature. Address: Sarva Seva Sangh, Rajghat, Varanasi P.O. (U.P.).

BHIDE, M. R., B.Sc., Nagpur, B.A., Cantab., I.C.S. (Retd.) Vice-Chairman & Mg. Dir., Voltas Ltd. b. Dec. 6, 1907; Educ.: Nagpur and Cambridge. Jt. Secy., Deptt., of Eco. Affairs, Govt. of India, 1955-57; Jt. Secy., Central Plng. Commn., 1957-58; Advisor, Plng. Commn., 1958-59; Addl. Secy. to the Union, Deptt. of Co-op., Jan. 1959-60; Secy., Union Min. of Community Devpt., Panchayat Raj and Coop., 1960-64; Dy. Governor, Reserve Bank of India, 1964-67; Chairman, L.I.C. 1967-70. Publications: Marketing of Sugarcane in United Provinces. Address: C/o Voltas Ltd. 19, Graham Road, Ballard Estate, Bombay 1.

BHOGILAL, Pratap, M.A., Industrialist. b. Oct. 25, 1916; Educ.: M.A. (Economics), Bombay Univ., 1938; V. J. T.I., Bombay. Chairman, Bombay Textile Research Assoc.; Pres., Indian Merchants' Chamber, 1968; Trustee, Bombay Port Trust; Cttee. Member, Millowners' Assoc.; its Chairman for three terms; Cttee. Member: F.I.C.C. & I.; Indian Cotton Mills' Federation; Mg. Director, Shree Ram Mills Ltd.; Director, Batliboi & Co. P. Ltd.; Vice-Chairman, Hindustan Polymere Ltd.; Director of many leading Investment, Insurance, Engineering, Textile, Chemical and Manufacturing Cos.; travelled abroad for business contacts in the fields of raw cotton, textiles, machinery, plastic exports and trade. Address: 26, Ridge Road, Bombay 6.

BHOOTHALINGAM, Subramanya, M.A. (Cantab.), I.C.S. (Retd.), Director General, National Council of Applied Economic Research, New Delhi, since Sept. 1967; Chairman: Mysore Taxation and Resources Enq. Cttee., since Feb. 1969; Adv. Bd., American Express Intnl. Bkg. Corpn., India, since April, 1969. b. Feb. 22, 1909; Educ.: Caius Coll., Cambridge. Joined I.C.S., Oct. 14, 1931; served in Madras till 1938; served as Dy. Secy., Jt. Secy., Spl. Seey., and Seey., Govt. of India in the Mins. of Industry till June 1955; Chairman, Hindustan Steel 1955-58; Secy.: Min. of Steel, Mines and Fuel, 1955-61; Fin. Min., Dept. of Expenditure, 1961-62; Min. of Econ. and Defence Co-ordination, 1962-63; Dept. of Co-ordination, Min. of Fin., 1963-64; Dept. of Econ. Affairs, Min. of Fin., 1964-66; Chairman, Cttee., on Rationalisation and Simplification of the Tax Structure, Min. of Fin., 1966-67. Address: Vasant Vihar, Near Ramakrishna Puram, New Delhi.

BIERING, H.E. Mr. Hans Adolf, Danish Ambassador in India, since Feb. 5, 1968. b. Feb. 16, 1920; Educ.: Master of Laws from Univ. of Copenhagen, 1945. Ministry of Foreign Affairs, Copenhagen, 1945, 1950 and 1954-59; Secy. of Legation, Berlin, 1949; Secy., Embassy of Denmark, Paris, 1951-54; First Secy., Embassy and Consul, London, 1959-61; Amb. Extr. and Plenipot. of Denmark to Accra, 1961; also Amb. to Monrovia (Residence in Accra), 1963; to Abidjan (Residence in Accra), 1964. Address: Royal Danish Embassy, 6 Golf Links Area, New Delhi-3; Residence: 7, Tees January Marg, New Delhi.

BILIMORIA, Ardeshir Burjorji, M. Com., Industrialist. b. Nov. 15, 1923; Educ.: St. Xavier's High School and Sydenham Coll. of Commerce & Economics, Bombay. Manager, Investment Corporation of India Ltd., 1961-65; Mg. Dir., 1965; Director, Tata Industries Private Ltd. and Financial Coordinator, Tata Group of Companies 1968; Director: Indian Cable Co. Ltd., Godfrey Phillips India Ltd., Tata Fison Industries Ltd., and other companies; Chairman: Bradma of India Ltd., and Investa Industrial Corporation Ltd.; Member: Exec. Cttee.: Tata Consulting Engineers and Tata Consultancy Services. Address: Office: Bombay House, Bruce Street, Fort, Bombay 1. Residence: 17, Cuffe Parade Bombay 5.

BILLIMORIA, Smt. Gulestan Rustom, M.A., Licentiate, Trinity Coll. of Music, London; Sheriff of Bombay (1957), Social Worker, Fellow and member, Academic Council and Syndicate, Bombay Univ.; Chairman, Junior Red Cross; Pres.: United Women's Orgs. Cttee.; Sir Ratan Tata Industrial Institute; Hon. Secy., All-India Cfce. of Social Work, 1949-56; Treasurer: "Sangam" Cttee.; World Assoen. of Guides; was Pres., Maharashtra State Women's Council & Women Graduates' Union; travelled in Europe and America, led delegations to Intal. Cfces.; awarded Kaiser-I-Hind Silver Medal. Publications: Jt. Author of Governance of India: Constitution Functions and Finance of Indian Municipalities. Address: Thoburn House, Apollo Bunder, Bombay.

BIRLA, B. M., Industrialist. b. 1904, at Pilani, Rajasthan. One of the founders, Indian Chamber of Commerce. Pres.: I.C.C., 1936 and 1944, F.I.C.C. and I., 1954; Founder and Pres.: Indian Sugai Mills Assoc.; Indian Paper Mills Assoc.; Ex-member, Fiscal Commin., Govt. of India; formerly Dir., Central Board of the Reserve Bank of India; Chairman; Hindustan Motors Ltd.; Managing Director, Birla Brothers Pvt. Ltd.; Director: Atul Products Ltd. and various other concerns. Address: 15, Indian Exchange Place, Calcutta 1.

BIRLA, Ghanshyamdas, Padma Vibhushan (1957), Hon. Doctor of Laws (B.H.U.) (1967). b. 1894. Mg. Dir. of Birla Gwalior Pvt. Ltd.; member, 2nd Indian Leg. Assembly: Pres.: Indian Chamber of Commerce, Calcutta, 1924; F.I.C.C. and I., 1929; has been responsible for the founding and maintenance of a large number of educl. and other public instts. in India; member: Indian Fiscal Commn.; Bengal Leg. Council; Royal Commn. on Labour; Delegate, Labour Cttee. at Geneva, 1927; member, 2nd R.T.C. 1930; Unofficial Advisor to Govt. of India for Indo-British Trade Negotiations, 1936-37. Address: 15, India Exchange Place, Calcutta 1; Birla House, New Delhi.

BIRLA, Lakshminiwas, Industrialist. b. 1909, at Pilani, Rajasthan. Director: Cotton and Jute Mills, Engg. Industries, etc., Mg. Dir., Birla Brothers Pvt. Ltd.; connected with various Cttees. related to trade and industry sponsored by Govt. and F.I.C.C. & I., 1967-68; Founder of a number of Educational Instins.; takes keen interest in community welfare activities. Publications: Books in Hindi and English covering poetry, folk-tales, short stories and novels; contributor in various imp. dailies and periodicals of India and abroad. Address: Residence: Birla Niket, Raja Santosh Road, Calcutta 27, Office: 15, India Exchange Place, Calcutta 1.

BIRLA, Rameshwardas, Chairman: The Century Spg. & Mfg. Co. Ltd; Birla Bombay Pvt. Ltd. b. 4th May, 1892. Address: Industry House Churchgate Reclamation, Bombay 20.

BOSE, Sunil Kumar, Scholar-musician, West Bengal; Director of Programme Exchange Service, A.I.R., New Delhi; member, Univ. Grants Commn. (Studies & Research in music), 1969-70. b. June 23, 1914; Educ.: Calcutta Univ. Radio & Gramophone Artist & Composer, since 1928; recipient of "Best Man" Gold Medals at All-India Music Competitions in Calcutta and Banaras, 1933: participated in All-India Music Conferences (1934-48); Music Director, Kali Films, Calcutta (1933-35); joined A.I.R. (1939); invented one musical instrument "Ballaki" (substitute for Cello) in AIR Dacca (1941); member: Music Curriculum Cttee., Baroda Univ. (1950); Examiner for music, Cal. Univ. (1955-56); attached to the B.B.C. Lond. in 1962; also Lecture—demonstration on Indiar, Music—in E. &. W. Europe. Publications: Many articles on Music in different languages in India and abroad. Address: 18/18, W. E. A. Karolbagh, New Delhi 5.

BROKER, Gulabdas Harjivandas, B.A., Bom., Gujarati Playwright and Short Story Writer. b. Sept. 20, 1909; Educ.: Porbandar High School, Bharda New High School, Elphinstone Coll., Bombay. Courted jail in Satyagraha Movement; member, B.P.C.C. and its Exec. Cttees., till 1936; began writing while in jail; won the Govt. of Bombay first prize for best drama written during 1947-54, many other awards and prizes; member: Advisory Board for Gujarati Sahitya Akademi, Delhi; Writers' Cttee., of the Natl. Integration Cttee.; Exec. and Jt. Hon. Seey., Sahitya Parishad, Gujarat; member; Exec. Cttee., P.E.N. All-India Centre; Pres.: Nalanda, Bandra, Vile-Parle Sahitya Sabha; Editor, Parab. Publications: 27 books of short stories, plays, poetry, and criticism. Address: 26, Swami Vivekananda Road, Vile-Parle West, Bombay 56 AS.

BULLAYYA, L., B.A. (Hons.) (Andhra), B.Ed. (Andhra), Vice-Chancellor, Andhra Univ., Waltair, since Nov. 30, 1968. b. July 1, 1918; Educ.: Hindu Coll. & A. C. Coll., Guntur; Andhra Univ. From 1953 held several posts—Divl. Inspr. of Schools, Dy. DPI, Pr. Pl. of Kurnool Trg. Coll. and Joint DPI, Andhra Pradesh, DPI, Andhra Pradesh, 1963-68; Director of Higher Edn., 1968. Address: Vice-Chancellor's Lodge, Andhra Univ. Campus, Waltair, Vishakhapatnam 3.

CAMA, Dr. Jehangir Sorabji, B.Sc., M.Sc. (Tech.), Ph.D., Managing Director, Esso Standard Refining Co. of India Ltd., since Oct. 1969. b. Dec. 12, 1924; Educ.: B.Sc., M.Sc. (Tech.), Bombay; Ph.D., Liverpool Univ., U.K. Junior Chemical Engineer, Esso, June-Sept. 1954; Engineer 'B', 1954-56; Engineer 'A', 1956-58; Shift Supdt., 1958-62; Process Supdt., 1962-66; Refinery Manager, 1966-69. Address: (Office): Esso Standard Refining Co. of India Ltd., Corridor Road, Bombay 74-AS; (Res.): Bungalow No. 11, Esso Nagar East, Mahul Road, Bombay 74-AS.

CAMPOCIGNO, H.E. Dr. Maurizio de Strobel di Frattae, Doctorate in Political Sciences, Ambassador of Italy in India, since May 6, 1968. b. July 17, 1970; Edve.: Univ. of Padova; Oxford and Grenoble. Joined the Italian Foreign Service, 1935; served the Italian Prime Minister in his Secretariat, 1945–46; was Secy., Italian delegation to the peace negotiations; Counsellor: Italian delegation to European Organisation for Economic Cooperation, Paris, 1949–52; Italian Embassy in Bruxelles, 1954–58; Dir., Deptt. of Middle East, Italian Min. of Foreign Affairs, 1952–54; Italian Amb. to: Albania, 1958–61; Finland, 1962–66; was Jt. Secy., Min. of Foreign Affairs as Head, Economic Divn.; as 'Roving Ambassador' to the Directorate-General of Economic Affairs, conducted commercial negotiations with various countries. Address: 15-B, Motilal Nehru Marg, New Delhi.

CANDETH, Lt. Gen. Kunhiraman Palat, Chiefs College Diploma, Param Vishisht Seva Medal (1963), General Officer Commanding-in-Chief, Western Command, since Sept. 27, 1969. b. Oct. 23, 1916; Educ.: Rashtriya Indian Mily. Coll., Dehra Dun; Staff Coll., Quetta. Commissioned into the Artillery Regt., 1945; saw service in Persia and Iraq during World War II; commanded an artillery brigade during Jammu and Kashmir operations, 1947-49; I Artillery Brigade, 1954-56; 77 Infantry Brigade, 1958-59; 8 Mountain Division, 1963-65; Corps in J. & K., 1966-69; Commandant, School of Artillery, 1950-54; Brigadier, Artillery, Western Command, 1956-57; promoted Major-General, Sept. 1959; Director of Artillery, 1961; took over the command of 17, Infantry Division and conducted Goa operations; Military Governor, Goa, Daman and Diu, 1961-62; promoted Lt. Gen., May 1965; Dy. Chief of Army Staff, 1965-66; is the Senior Colonel Commandant, Regt. of Artillery. Address: Command House, Simla.

CARIAPPA, General K. M., O.B.E. (1945); Former High Commr. in Australia and New Zealand and Former Commander-in-Chief, Indian Army. b. Jan. 28, 1900, in Coorg, South India; Educ.: Mercara and Madras. Commissioned from Daly Coll., Indore, Dec. 1919; saw service in Mesopotamia, N.W.F.P., 1923-30; Iraq, Syria and Iran, 1941-42 and in Burma (Arakan), 1943-44; Imperial Defence Coll., Lond., 1947; Chief of the Gen. Staff for some time; G.O.C.-in-Chief, Eastern Command, Dec. 1947 as Lt. Gen.; G.O.C.-in-Chief, Western Command, Jan. 1948 as Lieut. General; Commander-in-Chief, Army, 1949-53; conferred "Legion of Merit" Degree of Chief Commander by Pres. Truman, U.S.A., Aug. 31, 1949; Hon. rank of a full Gen., in the Nepalese army 1952; Hon. Degree of Doctor of Sci., Agra Univ., 1953. Indian High Commr. in Australia and in New Zealand, 1953-56. Address: The Roshanara, Mercara, Coorg, Mysore State.

CASSAD, Dhunjisha Pestonji Ruttonji, M.Sc. (Eng.) (Lond.), B.Sc. (Bom.), F.R.S.H. (Lond.), M.M.G.I., M.I.E., F.Am.Soc.C.E., M.A.I.M.E., Chartered Engr. (Civil & Mining). Business man; Mg. Director: The Nagpur Electric Light & Power Co. Ltd., Nagpur; Dir., C. P. Syndicate (P) Ltd., Bombay & Nagpur, etc. b. Sept. 16, 1907; Educ.: St. Paul's European High School, Rangoon; Deccan & Fergusson Colls., Poona; Banaras Hindu Univ. and Univ. Coll., London. Conducted researches in London and Berlin in water filtration and rigid frame structures; Pres.: Assoc. of Electricity Undertakings, Western and Central India; Instt. of Engrs. (1) 1957-58. Address: The C. P. Syndicate (P) Ltd., "Dolly Dale", Byramji Town, Nagpur. Residence: 'Currimbhoy Manor', 41, Warden Road, Bombay 26.

CHAGLA, Mahomedali Currim, B.A. (Oxon.), Bar-at-Law, Hon. Fellow, Lincoln Coll., Oxford, Hon. Doctor of Laws (B.H.U.) (1967); M.P. (Rajya Sabha), Ex Min. for External Affairs, Govt. of India; Pres., Indian Council for Cultural Relations; Vice-Pres., Sahitya Akademi, 1967-69. b. Sept. 30, 1900; Educ.: St. Xavier's High School and Coll., Bombay; Lincoln Coll., Oxford; called to the Bar (Inner Temple), 1922. Puisne Judge, Bombay High Court, 1941-47; Chief Justice, 1947-58; Vice-Chancellor, Bombay Univ., April-Nov. 1947; Pres., Asiatic Soc. of Bombay, Since 1947; member, Law Commn.; Governor of Bombay, Oct. 14-Dec. 10, 1956. Ad Hoc Judge, Intil. Court of Justice, The Hague, 1957; Leader, Indian Delegation to the Security, Council Debate on Kashmir, 1964 & 1965; received Hon. Degree of Doctor of Laws from the Univs. of Hartford, the Temple Univ., the Boston Univ. and Dartmouth Coll.;

Leningrad Univ. (USSR), 1964; Punjab Univ. & Banaras Hindu Univ., 1964; Amb. in U.S.A., 1958-61; Indian High Commr. in London & Amb. to Ireland, 1961-63; Leader, Indian Delegation to U.N. General Assembly 1967; Min. for Educ., Govt. of India, 1963-66. Publications: The Indian Constitution (1929); Law, Liberty & Life; The Individual and the State; An Ambassador Speaks; Education and the Nation; Unity & Language. Address: Pallonji Mansion, New Cuffe Parade, Bombay 5: 26, Western Court, New Delhi I.

CHAKIAR, P. Mani Madhava, Natyacharya, 1934, Vidooshaka Ratnam, 1960, Central Sangeet Natak Akademi's award, 1964, "Veerasrinkhalas" from Taliparamba Temple, Zamorin Raja of Calicut, Jagadguru Sankaracharya of Kanchikamakotipeedam, etc., a leading exponent of Chakiar Koothu and Koodiyattam. b. Feb. 15, 1899; Educ.: Studied Sanskrit under Vidvan Sankaran Nambudiripad of Killikurissimangalam; higher studies in Alankara Shastra under the late His Highness Parikshit Thampuran, the Maharaja of Cochin. Had his Arangettam at the age of 14. Played the principal role in several traditional Koodiyattam plays; is a specialist in Rasabhinaya. Publications: Atta Prakara for Kalidasa's Sakunthalam, 2nd Canto (not published); Sanskrit verses on the Deity of the historic temple of Taliparamba. Address: Killikurussi Mangalam, P.O. Lakkidi, Kerala.

CHAKRAVARTY, Birendra Narayan, B.Sc., O.B.E. (1945), Governor of Haryana, since Sept. 15, 1967. b. Dec. 20, 1904; Educ.: Calcutta and London. Joined the I.C.S., 1929; Finance Secy., Bengal Govt., 1944-47; Secy. to Governor, 1947-48; Counsellor, Indian Embassy in Nanking, China, 1948; Head of Indian Liaison Mission, Tokyo, Japan, 1948-49; Jt. Secy., Ministry of External Affairs, 1949-51; Secy., Commonwealth Relations, Govt. of India, 1951-52; Indian Amb. in the Netherlands, 1952-54; Ag. Indian High Commissioner in London, Aug.-Nov. 1954; High Commissioner for India in Ceylon, 1955-56; Special Secy., Ext. Affairs Min., 1956-60; High Commissioner in Canada, 1960-62; Permanent Rep. for India in the U.N., 1962-65. Publications: India Speaks to America. Address: Raj Bhavan, Haryana, Chandigarh; 19, G. Road, Maharani Bagh, New Delhi 14.

CHALIHA, Bimalaprosad, Chief Minister, Assam, since Dec. 1957. b. March 26, 1912, at Sibsagar; Educ.: Calcutta. Courted jail in the freedom movement; invented a mech. automatic spg. wheel and obtained a patent for it; elected Secy., All India Spinners' Assoc., Assam Branch till 1942; elected M.L.A.. Assam, from Sibsagar West, 1946; apptd. Parly. Secy., 1947; as provincial Rural Devpt. Orgr. initiated schemes for regeneration of rural economy; was the first Chairman, Assam Co-op. Apex Bank and Assam Co-op. Cottage Industries Assoc.; Gen. Secv., A.P.C.C., 1950; Pres., A.P.C.C., 1952; Member, Lok Sabha from Sibsagar-Lakhimpur Constituency, 1953; Regional Orgr. A.I.C.C. for Eastern Zone 1952; elected Chairman, Reception Cttee. of the 63rd Session of the Indian National Cong.; was member, Nagaland Peace Mission. Address: Rockside, Shillong.

CHAND, Dr. Tara, M.A. (Alld.), D. Phil. (Oxon.), Hon. Prof., Univ. of Tehran (Iran), Prof. Emeritus, Alld. Univ.; Hon. Prof.: Aligarh Univ., Osmania Univ.; Hon. Chairman, History of the Freedom Movement in India; Member, Rajya Sabha, 1958 68; Historian. b. 1888; Educ.: Delhi, Meerut, Allahabad and Oxford. Prof. of Politics, Allahabad Univ., 1945-47; Vice-Chancellor, Allahabad Univ., 1947-48; Secy. & Educl. Adv., Union Min. of Educ., 1948-51; Pres., Indian History Cong.;

Amb. to Iran, 1951-56. Publications: A Short History of the Indian People; Influence of Islam on Indian Culture; Hindustani; Growth of Islamic Thought in India; History of Eastern and Western Philosophy; History of the Freedom Movement in India, Vol. I & II; State and Society in the Mughal Period; Dara Shikoh's Sirr-i-Akbar (Persian). Address: 16, Stanley Road, Allahabad.

CHANDRA, Romesh, B.A. (Hons.), Lenin Peace Prize (1968), Secretary-General, World Council of Peace (since 1966, re-elected for second term 1969); Member National Council and Central Exec. Cttee., of the C.P.I. (Central Cttee. member, since 1951); Journalist. Educ.: Simla, Lahore and Cambridge. Pres., Cambridge Univ. Indian Majlis, 1938; Spl. Correspondent and Sub-Editor, Communist Party Central Newspapers, People's War and People's Age 1944-48; detained under Preventive Detention Act, 1948-49; Genl. Secy., All India Peace Council, 1952-63; Editor, New Age, 1963-66. Publications: Operation Asylum; Salute to Kashmir; Panchashila. Address: 6, Jamna Bhawan, Asaf Ali Road, New Delhi.

CHANDRASEKARAN, Chidambara, M.Sc. Nagpur, Ph.D. Lond., M.P.H. Johns Hopkins, U.N. Regional Demographic Advr. at ECAFE, Bangkok, since Aug. 1965. b. Oct. 30, 1911; Educ.: Nagpur, London and Johns Hopkins Univs. Rockefeller Fellow, 1947-48; Dir., U.N. Office for Population Studies, New York, 1950-54; Pres., Intn'l. Union for the Scientific Study of Population; Prof. of Statistics, All-India Instt. of Hygiene & Public Health, till July 1959; Pres., Statistics Sec., 1962 Indian Sc. Cong.; Dir., Demographic Trg. and Research Centre Bombay, 1959-65; recipient of C. J. Watumull Memorial Prize in Family Plng., 1964; Sesque Centennial Award, Univ. of Michigan, 1967. Publications: Over 60 original papers on Mathematical Statistics, Demography, Family Plng. and Medical and Public Health Statistics. Address: ECAFE, Bangkok.

CHANDRASEKHAR, Dr. Sripati, M.A., M. Litt. Madras, M.Sc. Columbia, Ph.D. New York, D. Litt. Honoris Causa, Redlands Univ., Watumull Prize (1966), Kaufman Award for distinguished work in demography and family planning in India (1969). b. Nov. 22, 1918; Educ.: Vellore, Madras, Columbia, New York and Princeton Univs. Dir. of Demographic Research, UNESCO, Paris, 1947-49; Editor, Population Review, Madras; Visiting Prof. of Economics, Pittsburgh Univ., 1961; Demography, California Univ., 1964-65; elected M.P. (Rajya Sabha) from Madras, 1964; was Dir., Indian Inst. for Population Studies, Madras; Min. of State for Health & Family Planning, Works, Housing & Urban Devpt., 1969-70. Publications: Hungary People and Empty Lands (London 1953); Communist China Today (Asia 1961); Red China: An Asian View (New York 1961); American Aid and India's Economic Development (New York 1965); Problems of Economic Development (Boston 1967); Asia's Population Problems (Lond. 1967), etc. Address: New Delhi.

CHANDY, Kanianthra Thomas, M.A., Ll.M. (London), Bar-at-Law, Chairman, Hindustan Steel Ltd., since May 1968; Director, International Iron and Steel Institute, Brussels. b. Jan. 13, 1913; Educ.: London Univ.; specialization in company administration, management development, market research, legal stuaies. Dir.: Hindustan Lever Ltd., 1956-62; Research, Adm. Staff Coll., Hyderabad until 1962, subsequently Principal, for one session; Ird. Inst. of Management, Calcutta, 1962-66; Chairman, Food Corporation of India, 1966-68; member: National Credit Council of Reserve Bank of India; Central Advisory Courcil of Industries; Ind.

Statistical Inst., Calcutta; Ind. Inst. of Foreign Trade: All India Management Assn.; Ind. Inst. of Management Adv. Cttee. of Information Research in Bureau of Public Enterprises; was also mem., National Planning Council. Address: Hindustan Steel Colony, Ranchi-2.

CHARAT RAM, Industrialist. b. Jan. 1, 1918; Educ. : St. Stephen's Coll., Delhi. Chairman & Pres. : Jay Engg. Works Ltd.; Shriram Refrigeration Industries Ltd.; Pres., All India Management Assoc.; Mg. Dir., Mg. Agents: the Delhi Cloth & General Mills Co. Ltd.; Dir.: Industrial Fin. Corpn. of India; Amar Dye Chem. Ltd.; Fertilizer Assoc. of India; Natl. Industrial Devpt. Corpn. of India; Bharat Forge Co. Ltd.; Bharat Steel Tubes Ltd.; Cominco Binani Zinc Ltd.; Shri Ram Associates P. Ltd.; Chairman: Devpt. Council of Organic Chemical Industries; Zonal Export Import Adv. Cttee. (North Zone); Alkali Mfrs. Assoc. of India; Member: Adv. Council on Trade; Board of Trade; Central Purchase Adv. Council; Exec. Cttee. of FICCI; Board of Governors of Indian Inst. of Management, Ahmedabad; Court of Governors, Adm. Staff Coll. of India, Hyderabad; Vice-Chairman, Shri Ram Institute for Industrial Research, Delhi. Address: 26, Sardar Patel Road, New Delhi-11.

CHATTERJEE, Dwarka Nath, B.A. (Hons.), I.F.S., Indian Ambassador to France, since Feb. 1969. b. Nov. 2, 1914; Educ.: Calcutta Univ.; King's Coll., London; London School of Economics and School of Oriental Studies, Univ. of London. Commissioned in Artillery, 1940; served in the Army till 1948 (Major); Minister, Embassy of India, Washington, 1959-62; Amb. in the Congo (Leopoldville), 1962-64; High Commsr. to Australia, 1965-67; Ag. High Commissioner in U.K., 1967-68; Dy. High Commissioner, 1968-69. Address: C/o Ministry of External Affairs, New Delhi.

CHATTERJEE, Nirmal Chandra, M.A., P.R.S., LL.B., Bar-at-Law, M.P., Senior Advocate, Supreme Court of India; Ex-Pres., Hindu Mahasabha; Pres., All India Civil Liberties Council; Vice-Pres., Indian Branch of the Intn.l Commn. of Jurists. b. Oct. 19, 1895; Educ.: Calcutta and London Univ. and Middle Temple. Ex-Judge, Calcutta High Court; led Kashmir Satyagraha movement along with late Dr. Syama Prasad Mookerjee; Counsel for India at Kutch International Tribunal in Geneva. Publications: Awakening of New India; Judicial Review of Fundamental Rights under the Indian Constitution; Emergency and Law; Company Law. Address: 7-B, Pusa Road, New Delhi; P-514, Raja Basanta Roy Road, Calcutta 29.

CHATTERJI, Dr. Suniti Kumar, M.A., Cal., D.Lit. Lond., Hon. D.Litt. Rome, Delhi, Visva-Bharati, Ravindra Bharati and Osmania; Hon. F.A.S., Hon. Member, Société Asiatique, Paris, 1946, American Oriental Society, 1947, Royal Siam Soc., 1955, Oslo Academy of Scs., 1956, American Linguistic Soc., 1959, Utrecht Soc. of Sc. & Arts, 1960; Padma Bhushan, 1955, Padma Vibhushan, 1963; Philologist, member, CIPL; Pres.: Asiatic Soc., Calcutta; Intnl Phonetic Assn., Lond.; National Prof. of India in Humanities. b. Nov. 26, 1890; Educ.: Calcutta, London & Paris. Lecturer & Khaira Prof. of Indian Linguistics and Phonetics, Calcutta Univ., 1914-52; Visiting Prof., School of South Asia Studies, Univ. of Pennsylvania, Philadelphia, U.S.A., 1951-52; Chairman: West Bengal Leg. Council, 1952-65; Govt. of India Sanskrit Commn., 1956-57. Publications: Origin and Development of the Bengali Language, 1926; Indo-Aryan and Hindi, 1960; Kirata-jana-kriti, 1951; Africanism—the African Personality, 1960; Indianism & Its Synthesis, 1962; Langs. and Lits. of Modern India (1963),

Dravidian (1965); Balts & Aryans (1968), India & Ethiopia (1969), etc. Address: "Sudharma," 16, Hindustan Park, Calcutta 29; National Library Campus, Belvedere, Calcutta 27.

CHAUDHARI, Madhukar Dhanaji, B.Com., M.Com., Minister for Education and Cultural Affairs, Maharashtra State, since Feb. 19, 1964. b. June 16, 1928, at Nasik; Educ.: Khiroda, Faizpur, Bhusawal and Wardha. Participated in the "Quit India" movement, 1942; worked for The Harijan Sevak Sangh and Adivasi Seva; M.L.A., Bombay, Raver Constituency, 1957; Dy. Min. for: Irrigation, Bombay State, 1957-60; Revenue, Maharashtra, 1960-62; Min. for: Urban Development, March-Oct. 1962; Pub. Health, 1962-63; Educ., Bldg. & Communications, 1963-64. Publications: Thesis on 'A Five Year Plan for the Socio-Economic Development of Village Mahakal'. Address: Satpuda, 20, Ruparel Marg, Malabar Hill, Bombay 6.

CHAUDHURI, Narnayain alias Sankho, B.A. (Calcutta), Dip. in Fine Arts (Viswa Bharati), Sculptor; Professor and Head, Deptt. of Sculpture, Faculty of Fine Arts, M. S. Univ. of Baroda. b. Feb. 25, 1916; Educ.: Calcutta and Santiniketan. Started as a freelance artist in Bombay, 1947; participated in various exhibitions in India; won the National Award, 1956; elected to the Lalit Kala Akademi, 1956; represented India in the International Symposium of Sculptors, Yugoslavia, 1961; participated in the Sao Paolo Biennale, 1961; visited Poland under the cultural exchange programme sponsored by the U.G.C.; visited U.S.S.R., West Germany and England; Dean, Faculty of Fine Arts, 1966-68. Address: M. S. University of Baroda, Baroda 2.

CHAUDHURI, Pratul Kumar, B.Sc. (Cal.), Secretary, Central Cttee. of the Revolutionary Socialist Party, since 1950. b. Feb. 9, 1913; Educ.: Noakhali, Tipperah and Calcutta. Was arrested under the B.C.L.A., May 1934; was in several detention camps, 1934-38; became a Marxist while in camp; delegate: Congress session, Tripuri, 1939; joined the R.S.P. from its inception; member, Prov. Exec. Cttee., R.S.P., 1946-48; took charge of the Central Office of the R.S.P., Dec. 1948; elected to its Central Cttee., 1948; Mgr., The Call, R.S.P.'s organ; its Mg. Editor, since 1957; visited Russia as Rep. of the U.T.U.C., May 1965; member, Wkg. Cttee., U.T.U.C., since 1948. Publications: Articles in The Call, Mehnatkash (a Hindi political weekly) and Ganavarta (a Bengali weekly). Address: 780, Ballimaran, Delhi-6.

CHAUDHURI, Tridib Kumar, M.A. (Econ.), C.U., M.P. (Lok Sabha), General Secy., R.S.P.; Author, journalist and political worker. b. Dec. 1911; Educ.: K. N. Coll., Berhampore. Member, Indian National Cong. prior to May, 1947; Cong. Socialist Party prior to May 1940; Anushilan Samiti; detained under British Rule, 1931-33 and 1939-46; resigned from Cong., 1947 with the R.S.P. group; imprisoned by Portuguese authorities in Goa, 1955-57; member of United Independent Parliamentary Group; M.P., since 1952; Vice-Pres., U.T.U.C. Publications: Swing Back (1950); Nineteen Months in Salazar's Prison (1958); About the R.S.P.; An Outline of Socialism, etc. Address: Revolutionary Socialist Party, Central Office, 780, Balimaran, Delhi 6.

CHAUDHURY, M. Moinul Haque, B.A. (Hons.); M.A., LL.B., Minister for Revenue, Forests and Irrigation, Govt. of Assam; Chairman, Central Haj Cttee., Govt. of India. b. July 1923; Educ.: Cotton Coll., Gauhati; Presidency Coll., Calcutta; Aligarh Univ. Joined Legal profession and became a leader; connected with many eduel. instts.; twice under detention for political activities; elected Congress M.L.A., Assam, 1952, 1957, 1962 & 1967; member: Exec. Cttee., Assam P.C.C.; Assam Cong. Parly. Party; A.I.C.C. since 1959; visited Italy, U.S.A., Saudi Arabia, U.A.R., Iraq, Iran, Malaysia, Thailand, Germany, France, Belgium, U.K.; Leader, Goodwill delegation to the Middle East, 1968; represented India in the World Islamic Confee. in Malaysia, 1968; Minister for Agr., Community Devpt., Panchayat, Fisheries, Parly. Affairs, Walf, P.W.D. (Irrigation), Veterinary, Assam, 1957-67. Address: Shillong, Assam.

CHAVAN, Dajisaheb Ramrao, M.A., LL.M., Bombay, Minister of State for Petroleum, Chemicals, Metals and Mines, Govt. of India, since Feb. 14, 1969. b. Aug. 22, 1916; Educ.: Kolhapur. Member, Bombay Leg. Council, 1954-56; Lok Sabha, since 1957; Dy. Min. for: Defence, Govt. of India, 1962-64; Food and Agr., 1964-66; Plng., Jan. 24-Feb. 13, 1966; Labour, Employment and Rehab., 1966-67; Law, March-Nov. 1967; Lab., Employment & Rehab., 1967-69. Address: 21, Asoka Road, New Delhi.

CHAVAN, Shankarrao Bhaorao, B.A., Madras, LL.B. Osmania, Minister for Irrigation and Power, Leg. Affairs and State Road Transport Corpn., Govt. of Maharashtra. b. 1920; Educ.: Paithan, Aurangabad District; City Coll., Hyderabad; Nizam Coll., Hyderabad. Was member, Minimum Wages Board, apptd. by Union Govt.; Vice-Pres., Central Co-op. Bank at Nanded for five years; was Dir., Hyderabad State Co-op. Bank; Chairman, Nanded Municipality, 1952-56; member, Exec. Body of All India Federation of Local Authorities; entered politics, 1945; Secy., Nanded D.C.C., 1950-53; Gen. Secy., Hyderabad P.C.C. for about 2 years; elected M.L.C., Bombay, 1956; M.L.A., Bombay since 1957; Dy. Min. for Revenue, bilingual Bombay, 1956-60; Member, Executive Cttee., M.P.C.C.; Dy. Leader, Cong. Parl. Party. Address: Ramtek, Narayan Dabholkar Road, Malabar Hill, Bombay 6.

CHAVAN, Yeshwantrao Balwantrao, Min. of Finance, Govt. of India, since June 27, 1970; Governor on the Board of: International Monetary Fund; World Bank; Asian Development Bank, since July 1970. b. March 12, 1913, at Devrashtre, Sangli Dist.; Educ.: Tilak High School, Karad; Rajaram Coll., Kolhapur; Law Coll., Poona. Started practice at Karad; was a Royist first, left the movement in 1939; Pres., D.C.C., 1941; directed underground movement in Satara Dist., Aug. 1942-May 1943 until his arrest at Phaltan, 1944; member, Maharashtra P.C.C., since 1940; was its Secy., 1948, 1949 and 1950; elected M.L.A., Bombay, 1946; apptd. Parly. Secy., 1946; Min. for Civil Supplies, Bombay, 1952; was Min. for Local Self-Govt., Forests, Community Projects, Bombay; elected leader, Cong. Leg. Party, Bilingual Bombay State, Oct. 1956; unanimously re-elected leader, 1957; Chief Min.: Bombay State, 1956-60; Maharashtra, May 1960-Nov. 1962; elected leader, Maharashtra Leg. Cong. Party, 1962 general elections; elected unopposed to the Lok Sabha in Nasik by-election, 1964; Minister for Defence, Govt. of India, 1962-66; Min. for Home, Govt. of India, 1966-70; visited U.S.A., U.S.S.R., U.K., 1964 in connection with military assistance to India; participated in the Indo-Pakistan peace talks at Tashkent, Jan. 1966; Pres., Institute for Defence Studies and Analysis. Address: 1, Race Course Road, New Delhi.

CHAVDA, Shiavax Dhanjibhai, G.D. Art (Bombay), Diploma in Fine Arts, Practising Artist. b. Dec. 11, 1914 in Gujarat; Educ.: C.J.N.Z. Madresa High

School, Navsari; Sir J. J. School of Art, Bombay; Slade School, London; worked at the Academie de la Grande Chaumiere, Paris; learned stage designing under the well-known Russian artist Polunin at the Slade School; also studied in St. Martin's School of Art, London. Represented in exhibitions in foreign countries like London, 1948, U.S.A., Germany, 1959, Switzerland, 1964, etc.; held one-man shows in India and abroad like Singapore, Paris, Zurich, U.S.A., etc.; travelled widely in Bali, Europe, U.S.A. and Malaya. Publications: Chavda (contemporary Series of Indian Art published by Lalit Kala Akademi); Murals: AIR INDIA— Washington D.C., Gandhi Darshan, N. Delhi. Address: Master Chambers, 1, Cinema Road, Dhobitalao, Bombay 20 BR.

CHERIAN, Smt. P.V., B.A. (Madras), Padma Bhushan (1967), Bene Merenti from the Pope, Ex-Mayor of Madras, Social worker; Chairman: Welfare, Amenities & Rehab. Cttee., Maharashtra; Fund Drive and Projects Cttee., Koyna Earthquake Rehab. Fund. b. May 28, 1913, in Madras; Educ.: Women's Christian Coll., Madras. Was Member, Senate, Madras Univ.; Pres., Adv. Board for the Hospital for Women and Children, Egmore, for over 20 years; delegate, Eastern Regional Org. of Public Admn., Tokyo, 1961; Vice-Pres., Indian Cfce. of Social Work and Pres., All Mayor's Cfce., Hyderabad, June 1958; member, All India School Health Council; was Dir.: L.I.C.; L.A.C.; Regional Programmes Adv. Cttee., A.I.R.; Chairman, Handicrafts Cttee., Small-Scale Industries and Handicrafts Board. Address: 5, Victoria Crescent, Madras 8.

CHETTIAR, L. P. KR. Ramanathan, Panditha Vidwan, Panditha (Madura Tamil Sangam), Vidwan, Madras Univ., conferred titles of Muttamil Vittakar, Ilakkiya Vithakar and Panditamani, Tamil writer, b. Nov. 6, 1915; Winner, King George V. Thousand Rupee Prize, Madras Univ. Serves on various academic bodies of the Univs. of Annamalai, Madras, Mysore, Osmania, Sri Venkateswara, Andhra, Kerala and Lucknow and on Cttees. constituted by the Govt. of India and of Madras and the Annamalai Univs.; Secy.: Tamil Music Research Cttee. of the Madras Tamil Isai Sangham from 1949; Prof. and Head of the Dept. of Tamil (Oriental), and Dean, Faculty of Oriental Studies, Annamalai Univ., 1953-68; compiled the National Bibliography—Tamil Sec. for Sahitya Academy; visited univs. and other educlinstt.s in U.S.A., Canada, Malaysia, U.K. and other European countries. Publications: Katturai Kovai; Annamalai Arasar; Sanga Kala Tamilar Valvu; Vazhakkai Valam; Nokku; Tholkappiya Chelvam; Pathupattu Valam, compiled twenty books in Tamil music. Address: 477, Poonamalle High Road, Madras 7.

CHETTIAR, T. Sundaram, B. Com., Business man; Director, East India Corpn. Ltd. b. 1915, at Madurai; Educ.: Calcutta Univ. Dir.: The Sree Meenakshi Mills Ltd., Madurai; Saroja Mills Ltd., Coimbatore & other mills; Madura Insurance Co. Ltd., Madurai; Premier Instruments Ltd., Madras. Visited the U.S.A., U.K. and the Continent, 1948, 1961; Pres., Sri Visalakshi Kalasalai High School; member: Thiagarajar Coll. Endowment Trust; Thiagarajar Educl. Trust. Address: 'Meenakshi Nilayam', Tirupparan-kundaram Road, Madurai.

CHINAI, Babubhai Maneklal, L.T.M., V.J. T.I., Padma Bhushan, 1966, M.P. (Rajya Sabha), Pres., All India Organisation of Employers, New Delhi; Treasurer, Mg. Trustee, Shri S. K. Patil Public Trust; Trustee: Sardar Vallabhbhai Patel Memorial Trust; Shri Brihad Bharatiya Samaj and other trusts; Business man. b. April 1913, at Ahmedabad; Educ.: Seth Anandilal

Podar High School; Sir Parsuram Bhau Coll., Poona; V.J.T.I., Bombay. Is mainly concerned with the establishment and development of rayon industry in India; courted arrest in freedom movement; Hon. Treasurer, Mahatma Gandhi National Memorial Fund (Bombay Cttee.); member: Governing Body of Indian Investment Centre, New Delhi; A.I.C.C.; B.P.C.C.; member of several delegations abroad; Dir.: National Standard Duncun Ltd., Poddar Project Ltd. and several other companies; Chairman; Usha Spg. & Wvg. Co. Ltd. Address Residence: St. James's Court, Netaji Subhas Road, Bombay 1; Office: P.N.B. House, Sir P.M. Road, Bombay 1.

CHOKSI, Jehangir Dossabhoy, Industrialist; Chairman: New India, Rallis, Investment Corpa., Indian Rare Earths and other Cos.; Vice-Chairman: Tata Steel. Dir.: Tata Sons and other Companies. b. Aug. 26, 1900, Bangalore; Educ.: Bangalore, Bombay. Started practice as Solicitor, Bombay High Court, 1926; Legal Adviser to Tata Group Cos., 1938-45; became Dir., Tata Sons and Tata Industries, 1945; Vice-Chairman: Tata Industries and Tata Group, 1962-67; Chairman: Voltas, 1954-63; Tata Electric Cos., 1958-61; Trustee: Sir Dorabji Tata Trust and other Trusts. Address: Bombay House, Bruce St., Bombay 1; "Brighton", 1, Nepean Sea Road, Bombay 6.

CHOPRA, Mulk Raj, Civil Engg., Higher Grade, Roorkee; Member, American Society of Civil Engineers I.S.E., Padma Bhushan (1967), Vice-Chancellor, Roorkee University; Chairman, Central Water and Power Commn., 1962-66. b. Aug. 18, 1906; Educ.: Govt. Coll., Lahore; Thomason Engg. Coll., Roorkee. Served the Punjab Govt.; became Supdtg. Engr., 1948; led a team of engr. s to U.S.A. for designing the Bhakra Dam, 1948; took over construction of Bhakra Dam, 1953; Dy. Gen. Mgr. and then Gen. Mgr., Bhakra Dam and Beas Project, 1960-62; Secy., Punjab Govt., Bhakra Dam, Admn. 1958-62; led a team of engrs. to France, U.S.A., Canada & Japan for plng. of machinery for Beas Project. Address: Roorkee University, Roorkee.

CHOWDHURY, Devi Prasad Roy, M.B.E., Hon. D. Litt. (Rabindra Bharati Univ.), 1968, Padma Bhushan (Oct. 1958), Sculptor; Ex-Chairman, Lalit Kala Akademi, New Delhi. b. June 15, 1899; Educ. : Privately. Principal, Govt. School of Arts and Crafts, Madras, 1929-57; Director, Regional Arts Seminar organised by UNESCO at Tokyo, 1955; won 1st prize in the National Modern Sculpture Exhibition, sponsored by the Govt. of India; executed large group composition in bronze - Martyrs Memorial, Bihar; Triumph of Labour, Madras & New Delhi; Mahatma Gandhi, Madras & Calcutta; Rhythm, at national Museum, New Delhi; Motilal Nehru, Parliament House, New Delhi; his paintings were published at the London Studio, New York International Studio, Moscow and other places. Publications: About eight books consisting of short stories in Bengali. Address: 63, Shambunath Pandit Street, Calcutta 25.

CHUNDRA, Bimal Kumar, M.B., B.S. (Calcutta), 'Distinction Award' and 'Diploma' exam. of Royal Life Saving Soc., Lond. (1959), Swimmer. b. Nov. 19, 1927; Educ.: Scottish Church Collegiate School, Scottish Church Coll. and R. G. Kar Medical Coll.; West Bengal State Champion, 1946-54; All-India Aquatic Champion in 400 metres and 1,500 metres Free Style, 1947-52; represented India in Swimming: in XIV World Olympic Games, London, 1948, and in the 1st Asian Games, New Delhi, 1951; swam in the river Ganges for seven hours and covered 27 miles; first Indian to swim the English Channel successfully from France to England in 13 hrs. 50 minutes

at the first attempt, Sept. 1959; Seva Medal from St. John Ambulance Brigade (1968); Life member, Royal Life Saving Soc., London. Address: 46/1, Ramdulla Sircar Street, Calcutta 6.

COELHO, Vincent Herbert, B.Sc. Ambassador to Japan, since July 1970. b. July 20, 1917; Educ.: Presidency Coll., Madras, I.A. & A.S., 1942; later I.F.S. Served in the Supply Deptt., Min. of Fin. and Cabinet Sect., 1944-47; Private Secy. to the Prime Minister, 1947-48; First Secy., Indian Embassy, Berne, 1948-49; Trade Commsr., Alexandria, 1949-50; Consul-General, Goa, 1951-54; Officer on Special Duty and later Dy. Secy., Min. of Ext. Affairs, 1954-57; Counsellor/Charge d'Affaires, Embassy of India, Ankara, 1957-59; Joint Secy., Min. of Ext. Affairs, 1959-63 and 1967-68; Amb. to Brazil, 1963-66; Indian Political Officer, Sikkim, 1966-67; Addl. Secy., Min. of Extl. Affairs, Jan.-Nov. 1968; Secy., Min. of Ext. Affairs, 1968-70. Address: C/o Ministry of External Affairs, New Delhi.

CONTRACTOR, Noman Lookmanji, Business man. b. August 17, 1918; Educ.: Privately. Mg. Dir.: Rainbow Ink & Varnish Mfg. Co. Pvt. Ltd.; Popular Fine Art Litho Works Pvt. Ltd.; Founder-member and Pres.: All India Printing Ink Mfgrs. Assoc. Ltd., 1963–64; Hon. Gen. Secy., All India Federation of Master Printers, 1963–64 and its Pres., 1965–66; Member: Indian Merchants' Chamber; Indo-Arab Soc., etc.; International Assoc. of Printing House Craftsmen Inc., U.S.A.; All India Playing Card Mfrs.' Assoc.; has travelled extensively in India, U.S.A., Japan, Europe and Middle East. Address: 'Firdaus', 133-C, Vakola Pipe Line, Santa Cruz, Bombay 55 A.S.

COOMARASWAMY, H.E. Mr. Punch, LL.B.(Hons.) (Nottingham), Barrister-at-Law, High Commissioner for Singapore in India and Ambassador to Nepal. b. Oct. 16, 1925; Educ.: Johore English Coll., W. Malaysia; Univ. of Nottingham, England. Practised law in Singapore and W. Malaysia, 1956-66; Visiting Lecturer in: Law of Evidence, Univ. of Singapore, 1958-69; Legal Ethics, Bd. of Legal Edn., Singapore, 1960-69; Member, Edit. Bd., Malaya Law Review, 1959-69; Hon. Secy. and Member, Singapore Bar Council, 1958-66; Chairman and member, various Statutory Cttees.; elected Dy. Speaker, Parliament of Singapore, 1966; Speaker, 1966-70; Ag. Pres., Republic of Singapore, March-May 1968; Singapore Delegate, 21st U.N. Gen. Assembly; attended: Speakers' Confee., Ottawa, 1966 and 1969, 56th Intl. Parl. Union Confee., Lima, Peru, 1968; Pres., Singapore Cricket Assen., 1968-70. Publications: Chapter on Evidence and Civil Procedure in Laws of Malaya and Singapore (ed: Sheridan). Addrese: 16, Ring Road, Lajpat Nagar, IV, New Delhi 24.

COOPER, Jal Manekji, F.R.G.S., Member, British Philatelic Assoc. Ltd.; Hon. Secy., The Empire of India Philatelic Socy. b. March 29, 1905. Member, Glasgow Philatelic Socy., Philatelic Traders' Socy., The Air Mail Socy., etc.; Editor and Publisher of "India's Stamp Journal". Publications: Indian Rocket Mails, Early Indian Cancellations, Stamps of India, India used in Burma, India used Abroad, and Specialised Catalogue of Indian Stamps. Address: Standard Building, Dadabhoy Naoroji Road, Bombay-1.

COOPER, Dr. Rustom Cavasjee, M. Com., Ph.D. (Econ.), F.G.A. (Eng. & Wales), F.C.A.; Partner, P. C. Hansotia & Co., Touche, Ross, Bailey & Smart, and Ghatalia & Cooper; Pres., Indian Merchants' Chamber for 1967. b. Aug. 18, 1922; Educ.: Sydenham Coll. of Commerce & Economics, Bombay; Univ. School of Eco-

nomics, Bombay & British Coll. of Accountancy, London. Practising Chartered Accountant since 1948; Pres., The Instt. of Chartered Accountants of India, 1963-64; Member: Central Direct Taxes Adv. Cttee., since 1964; Research Programmes Cttee., Finance Ministry since 1960; Dir.: Central Bank of India Ltd.; Gaekwar Mills Ltd., etc.; Hon. Treasurer, Indian Red Cross Soc.; Specialist in Taxation and Management Consultant; Gen. Secretary, Swatantra Party. Publications: Bombay Public Trust Act and Handbook of Estate Duty. Address: 51, Mahatma Gandhi Road, Jehangir Wadia Bldg., Bombay 1.

DAHANUKAR, Dattatreya Mahadeo, Padma Shri (1969), Chairman and Mg. Director, The Maharashtra Sugar Mills Ltd.; Chairman: Maharashtra Radio & Electronics Ltd.; Christopher Chairman: Maharashtra Radio & Electronics Ltd.; Dir.: Schrader-Scovill Duncan Ltd.; Armoday Investments Pvt. Ltd.; Mg. Dir., M. L. Dahanukar and Co. P. Ltd. b. Dec. 21, 1911; Educ.: Bombay. Member: The Indian Merchants' Chamber, Bombay; The Maharashtra Chamber of Commerce, Bombay; Bombay Management Assoc., Bombay; F.I.C.C. & I., New Delhi. Address: Office: Industrial Assurance Building, Churchgate, Bombay 1. Res.: "Bakhtawar", Narayan Dabholkar Road, Malabar Hill, Bombay 6.

DALAL, Manockji Nadirshaw, Ex-Chairman, Council of State; Ex-Sheriff, Bombay; Vice-Pres., Indian Branch of the Commonwealth Parliamentary Assoc.; Member of the Court, Delhi Univ.; served on all Adv. Cttees. of Ministries of the Govt. of India, Civil Defence Cttee., Commonwealth Relations Cttee. etc.; Director, International Road Federation; member, Exec. Cttee., Indian Merchants' Chamber; Chairman: Elpro International Ltd.; Sepulchre Bros. (India) Ltd.; Tractors India Ltd.; Coles Cranes of India Ltd.; Advisor, New India Assurance Co. Ltd.; Fellow, Incorporated Assoc. of Architects & Surveyors (Lond.); Fellow, Royal Soc. of Arts (London); Honourably mentioned for the Charles Hawkesley Prize, 1931, by the Royal Inst. of Civil Engrs. (London). Address: Nepean House, Ridge Road, Bombay 6.

DALMIA, Jaidayal, b. Dec. 1904, younger brother of Seth Ramkrishna Dalmia; Educ.: Privately. A leading industrialist and an able executive; has wide knowledge of machinery and plant; keenly interested in mass literacy, labour problems and maternity welfare; has travelled in India and Europe; has visited workshops of many important machinery manufacturers in Great Britain and the Continent and has good experience of different processes of cement manufacture; keenly interested in engineering; Chairman, Orissa Cement Ltd. Address: No. 1, Tees January Marg, New Delhi 11.

DALMIA, Seth Ramkrishna, Industrialist. b. April 17, 1893. His ancestors, noted for their love of spiritual service, belonged to Dalma, a village in the Haryana (Pb) State, from where they migrated to Rajputana: Educ. : Without the help of a tutor, by reading books in leisure time, practical experience and natural gift, acquired knowledge specially in finance, banking, commerce, economics and philosophy; also acquired good knowledge of Hindi, Bengali, Gujarati and English all of which he speaks well and with ease; well read in Hindu scriptures; started career at the age of 12 at Rs. 10 per mensem, as an apprentice with his maternal uncle; is the founder of the Dalmia-Jain Group of Industries consisting of many companies including banks, insurance and investment companies, chains of cement and sugar factories, chemicals, biscuit factories, aviation companies, railways, collieries,

publishing house and newspapers; has now distributed most of the concerns between his brother and son-in-law, keeping just a few in his hands; had numerous ups and downs in his career but his steadfastness and strong will power raised him to his present position; his centres of activity have grown into self-sufficient towns, named after his ancestors and relations — Dalmianagar (Bihar), Dalmiapuram (South India), Dalmia-Dadri (Haryana), Ramkrishna Lok, Sawai Madhopur (Rajasthan), and Shantinagar (Karachi-Pakistan); is one of the biggest philanthropists; spent huge sums of money to help the Congress and for the uplift of the masses, but at present he is not in politics; since 1951 has lived on milk and fruit juice, has vowed not to take cereals until cow slaughter is abolished; leads plain living, wears simple clothes and is frugal in his personal expenses; is on terms of friendship with religious and social leaders; to strengthen the unity of India and Nepal has recently published a book *Political Ideology* of King Mahendra of Nepal in which he says that partyless panchayat system, which is most ancient in the world, should be revived by selfless leaders and that the present conflict will continue until the establishment of One World Government. It has been appreciated by almost all world dignitaries in India and abroad; is orthodox in his living and having reverence for other religions, has implicit faith in his own religion and Supreme Power of Goddess "Jagadamba" who pervades and controls the Universe, and from whom all Dharma has emanated. Address: Durga Bhawan, 27, Akbar Road, New Delhi-11.

PALMIA, Vishnu Hari, Industrialist. b. May 1924. From young age, began taking active interest in various concerns owned and/or managed by the Dalmia Group like Bharat Bank Ltd., Bharat Fire & General Insurance Ltd., and Bharat Insurance Co., Ltd.; Chairman: Dalmia Coment Ltd.; Raza Buland Sugar Co., Ltd.; Bharat General Reinsurance Ltd.; The Rampur Distillery & Chemical Co., Ltd.; Director: Orissa Coment Ltd., etc.; Pres.; Cement Manufacturers' Assc.; Indian Sugar Mills Assoc.; Member: Main Cttee. of All India Organisation of Employers; was member, first Central Wage Board (Cement); widely travelled in Europe, Japan and U.S.A.; keenly interested in cultural and religious activities and religious literature, wolfare programmes for employees; as a strict vegetarian, takes active interest in propagation of vegetarianism. Address: (Office): 4, Scindia House, New Delhi 1; (Residence): 1, Tees January Marg, New Delhi 11.

DAMLE, Kashinath Raghunath, B.Sc., (Hons.), (Allahabad and London), I.C.S. (Retd.), Chairman, Union Public Service Commission, since April 1967. b. March 3, 1906; Educ.: Allahabad Univ.; King's Coll., London. Joint Magistrate & Dist. & Sessions Judge in various places in U.P. & Ajmer (1930–44); Secy. to High Commr. of India in Australia, also Acting High Commr. (1944–48); Jt. Secy. & Offg. Secy. to Govt. of India & Vice-Pres., Indian Council of Agri. Research (1949–55); Chairman, 1955–58; Secy.: Union Min. of Food & Agri., 1958–62; Union Min. of Mines & Fuel, 1962–63; Min. of Petroleum & Chemicals, 1963–64; Secy. to the Pres., Oct. 1964–Feb. 1965; Lt. Governor of Goa, Daman & Diu & Admr., Dadra and Nagar Haveli, 1965–67. Address: Union Public Service Commission, Dholpur House, New Delhi.

DAMRY, Purviz Nadirshah, B.A. (Hons.) (Oxon.), M.A., Deputy Governor, Reserve Bank of India, since Feb. 13, 1967. b. March 13, 1914; Educ.: St. Paul's School, London; Christ Church, Oxford. Dist. Magistrate & Collector: Sholapur, 1943 and 1945–46; East Khandesh,

1944-45; Ahmedabad, 1947-50; Collector of Bombay, 1950; Commissioner of Labour, 1950-53; Commissioner of Sales Tax, 1953-60; Secy. to Govt. of Maharashtra: P.W.D., 1960-62; Finance & Planning, 1962-67. Address: C/o Reserve Bank of India, Mint Road, Bombay 1.

DANDEKAR, Ramchandra Narayan, M.A. (Sanskrit), M.A. (Ancient Indian Culture), Ph.D., Padma Bhushan, 1962, Sanskrit Scholar, Prof. of Sanskrit & Head of the Deptt. of Sanskrit & Prakrit Languages, and Dir., Centre for Advanced Study in Sanskrit, Univ. of Poona. b. March 17, 1909; Educ.: Deccan Coll., Poona; Heidelberg Univ. (Germany). Hon. Secy., Bhandarkar Oriental Research Instt., Poona, since 1939; Gen. Secy., All India Oriental Cfce., since 1946; attended International Congresses of Orientalists, Paris, 1948, Istanbul, 1951, Cambridge, 1954, Moscow, 1960, Ann Arbor, 1967; Vice-Pres., International Union of Orientalists; member, Exec. Cttee. of Sahitya Akademi; Editor, Critical Edition of Mahabharata; Editor, Annals of B.O.R.I., Erasmus. Publications: Der vedische Mensch, A History of the Guptas, Vedic Mythological Tracts, Vedic Bibliography, Salyaparvan, Rasaratnapradipika, Progress of Indic Studies, Srautakosa, Anusasanaparvan. Address: University of Poona, Poona 7.

DANDEKER, Narayan, B.Sc. (Econ.) (Hons.), London, B.Com. (Hons.), London, F.C.A., Eng., F.C.A., India, I.C.S. (Retd.), M.P., Vice-President, Swatantra Party; Chartered Accountant; Dir., Punjab National Bank Ltd.; Chairman, Indian Oxygen Ltd.; Albright Morarji & Pandit Ltd.; Borax Morarji Ltd.; Siporex India Ltd.; Hindustan Thompson Assoc. Ltd. b. June 24, 1908; Educ.: St. Mary's European High School, Madras; Univ. Coll., Colombo, Ceylon; London School of Economics, London; School of Oriental Studies, London. Joined the I.C.S., 1931; Commr., Income-Tax at Calcutta, Punjab, Delhi, N.F.W.P., Bengal, 1941-48; Member, Central Board of Revenue, 1948; Jt. Seey., States Min., 1948; member, Cttee. on Federal Fin. Integration, 1948-49; Chief Exec., Scindia Steam Navigation Co., Ltd., Bombay, 1949-54; Mg. Dir., Cement Agencies Ltd., 1954-61; Pres.: Bombay Chamber of Commerce, 1959-60; All-India Management Assocn., 1960-63; member: Bonus Commn., 1961-64; National Shipping Board, 1967-69; Address: Southlands, 177, Upper Colaba, Bombay 5.

DANGE, Shripad Amrit, M.P., Chairman, National Council, C.P.I., since April 29, 1962; Leader, C.P.I. group in the Lok Sabha; Gen. Secy., All India Trade Union Congress. b. Oct. 10, 1899; Educ.: Bombay. Member, Central Exec. Cttee. of the C.P.I. & also member, Secretariat; Vice-Pres., World Feddration of Trade Unions; courted jail for over 17 years under the British Govt. & the Cong. Govt. for conducting strikes, struggles & political activities on behalf of the Communist Party; M.P., Lok Sabha, 1957-62; again elected to the Lok Sabha from Central Bombay Constituency, 1967. Publications: India from Primitive Communism to Slavery, 1949; Hell Found, 1928; Gandhi vs. Lenin, 1921, etc. Address: 9, Kohinoor Road, Dadar, Bombay 14; 4/7, Asaf Ali Road, New Delhi.

DARSHAN, Bhakt, M.A. (Allahabad), Minister of State in the Min. of Education, Govt. of India, since Feb. 18, 1969 & also of Youth Service, since June 1970. b. March 30, 1912; Educ.: D. A. V. Coll., Dehra Dun; Vishwa Bharati, Shantiniketan; Allahabad Univ. Took active part in Congress movements & was imprisoned four times; founded & edited the Karma Bhumi (a Hindi weekly) from Lansdowne, Garhwal;

Pres., Dist. Board & Dist. Plng. Officer, Garhwal for several years; M. P., Lok Sabha from Garhwal (U.P.) since 1952; Dy. Min. of: Education, Govt. of India, 1963-67; Transport and Shipping, 1967-69. Publications: Suman-Smriti-Granth, and Garhwal-Ki-Divangations (both in Hindi). Address: Jaiharikhal, Lansdowne, Dt. Garhwal (U.P.); 10, Hastings Road, New Delhi.

DAS, Durga, Editor in Chief, India News and Feature Alliance, since Nov. 1959. b. Nov. 23, 1900, at Aur (Punjab); Educ.: Jullundur & Lahore. Special Rep. of the Statesman, 1938-43; Jt. Editor, the Hindustan Times, 1944-57 & Chief Editor, 1957-59; visited the Middle East, Italy & the U.K. as War Correspondent, 1945; Chairman, Press Gallery Cfce., Indian Parliament, 1951-59 & 1962-63; Delegate to the Commonwealth Press Cfce., Ottawa, 1950; Pres.: All-India Newspaper Editors' Cfce., 1959-61; Press Club of India, New Delhi, 1959-62; member, Small Newspapers Enq. Cttee.; made round-the-world tours, 1957, 1959 and 1967. Publications: India & The World; Ram Rajya in Action; Infa Press And Advertisers Year Book; Memoirs: India—from Curzon to Nehru and after (Collins). Address: 2, Tolstoy Lane, New Delhi 1.

DAS, Dr. Nabagopal, I.C.S. (Retd.), Ph.D. (London), Life Member, Royal Eco. Soc., Author; Eco. Adv. & Vice-Pres., Hindustan Motors, Ltd., Calcutta, since 1964. b. Feb. 20, 1910; Educ.: Presidency Coll., Calcutta; London School of Economics. Entered the I.C.S., 1931; Jt. Secy., Ministry of Labour, Govt. of India, 1947-52; Dir. Gen., Employers' Federation of India, Bombay, 1959-63; attended the I.L.O. Sessions in San Francisco, 1948 & Geneva, 1949 & 1950, on behalf of Govt. of India & in Cologne, 1959 and Geneva, 1967, on behalf of Indian Employers; Founder-member, India; P.E.N. Publications: Industrial Enterprise in India; Unemployment and Employment Planning; The Public Sector in India; Experiments in Industrial Democracy. Address: 4, Jubilee Park, Tollygunge, Calcutta-33.

DAS, Santanu Kumar, Minister for Excise, Rev. (Registration), Political & Services, Orissa, since Nov. 1969. b. Sept. 1917; Educ.: Jajpur High School. Elected M.L.A., Orissa, 1942, 1946, 1952, 1957, 1961 from Salepur, Jajpur-Binjharpur and Jajpur (East); elected member, Constituent Assembly, till 1950; Dy. Min., 1957-59; did social work among the criminal tribes with Thakkar Bapa, courted jail in the freedom movement; joined Jana Congress Party, 1966; got elected on Jana Congress ticket, 1967; Founder Pres., Orissa Depressed Classes League; member: State Tribes Advisory Board; Harijan Welfare Board; State Writers' Assoon.; Chairman, State Scavengers Welfare Cttee.; Min. for Tribal & Rural Welfare and Excise, Orissa, March 1967-Nov. 1969. Publications: Bhai Bhai; Ahwan; Bhitamati in Oriya; contributes to newspapers. Address: P.O. Box No. 88, Bhubaneswar

DAS-GUPTA, Niraj Nath, M.Sc. (Cal.), Ph.D. (Lond.), F.N.I., Educationist. b. Feb. 1, 1909; Educ.: Hindu School, Presidency College; College of Science, Calcutta Univ.; King's College, London Univ. (1935-38). Cal. Univ. Gold Medalist (1931); Mahendralal Siroar Research Medalist (1938). Research Fellow, Cal. Univ. (1938-40). Research Associate, Stanford Univ., California (1945-46); Professor and Head of Biophysics Division, Saha Institute (1947-69); Palit Prof. of Physics, Cal. Univ. since 1969; Member: Biophysical Society, U.S.A.; National Institute of Sciences, India; Exec. Cttee. of International Federation of Societies for Electron Microscopy (1966); President:

Electron Microscope Society of India (1962-67). Publications: Over thirty papers in biophysics, electron microscopy and radiation biology and a monograph on Wilson Cloud Chamber translated into Russian. Address: 44, Hazra Road, Calcutta 19.

DASS, Kaushal Kumar, M.A., I.C.S., Secretary, Min. of Information and Broadcasting, Govt. of India. b. May 25, 1915; Educ.: Naini Tal; Allahabad. Appointed to I.C.S., Oct. 8, 1938; held different positions from Asstt. Collector and Magistrate, Bellary, till he became Sales Tax Commissioner; Collector, Jhansi Divn.; Commissioner for Reorganisation, Faizabad Divn.; Lucknow Divn.; Chief Secy., U.P.; Dir., National Academy of Administration, Mussoorie. Address: No. 12, Teen Murti Marg, New Delhi.

DAVE, R. M., Industrialist. b. Jan. 7, 1918; Educ.: Baroda Univ. Sheriff of Madras 1962-63; Pres., Hindusthan Chamber of Commerce, 1958-59; Member: National Food and Agri. Adv. Council, Govt. of India; Mg. Cttee., Madras State Board, AIMO; Southern Rly. Users Consultative Cttee.; Cttee. Member: Hindustan Chamber of Commerce; Slum Improvement, Government of Madras, Shri Gujarati Mandal, Madras; Dir.: Sovereign Spg. & Wvg. Mills Ltd., Madras and other Cos. Address: Office: Broadway, Madras-1; Res.: 9-A, Venkatanarayana Road, Madras-17.

DAVE, Shantilal Somnath, Post Diploma in Painting, Artist. b. Sept. 25, 1931; Educ.: Premier High School, Ahmedabad; Fine Arts Coll., Baroda. Awarded Lalit Kala Akademi Prize, 1956, '57 and '58; Governor's Prize—Bombay Art Society, 1956, '58; 3rd major prize, S.-E. Asian Art Exhibition at Manila, 1957 for paintings and several other prizes. Murals, for Air-India International—Frankfurt, New York, Los Angeles, New Delhi, Bombay and Taj Mahal, 1960; conducted one-man show in New Orleans, Sydney, San Diago, New York, London; Bombay (five times); Delhi (six times). Address: E-61, South Ext. Part 1, New Delhi 3.

DAYAL, Mr. Justice Bishambhar, B.A., LL.B., Chief Justice, Madhya Pradesh High Court, since Mar. 19, 1969. b. Sept. 14, 1910; Educ.: C.A.V. High School, Allahabad; St. John's Coll., Agra & Agra Coll., Agra Enrolled as Pleader at Agra, 1933; practised in Allahabad Dist. Court, 1935-46; Advocate, High Court, Allahabad, 1946-57; Judge, High Court, Allahabad, 1957-69. Address: 191, South Civil Lines, Jabalpur.

DE, Biren, Artist. b. Oct. 8, 1926; Educ.: Calcutta Govt. Coll. of Arts & Crafts. Practising as free-lance artist; held several one-man shows; participated in many exhibitions abroad, Paris, 1951; Sao Paulo Biennale, Brazil, 1961; Tokyo Biennale, Japan, 1960 and 1962; Venice Biennale, 1962; ten Indian Painters Exhibition touring the U.S.A. and S.E. Asian Countries; won National Award for painting, 1958 and 1964; Carnegie International 1967, Pittsburg, U.S.A.; First Triennale India, 1968; worked on Fulbright Grant in New York, 1959-60. Address: 1, Ramkishore Road, Civil Lines, Delhi.

DE, Niren, B.A. (Calcutta), B.A. (Cantab.), Bar-at-Law, Attorney General for India, since Nov. 1968. b. Sept. 17, 1908; Educ.: Hare School, St. Xavier's School and Coll. and Presidency Coll., Calcutta; King's Coll., Cambridge; Lincoln's Inn, London. Practised in Calcutta High Court, 1933-64; member, Law Commission, Govt. of India, 1961-64; Addl. Solicitor-General of India, 1964-67; Solicitor-General of India, 1967-Oct. 1968. Address: 34, Aurangzeb Road, New Delhi 11.

DE MEL, Most Rev. Hiyanirindu Lakdasa Jacob, M.A., D.D., S.T.D., Lord Bishop of Calcutta & Metropolitan of the Church of India, Pakistan, Burma & Ceylon. b. March 24, 1902, at Colombo; Educ.: Royal Coll., Colombo; Keble Coll., Oxford; Cuddesdon Coll., Oxford. Vicar, St. Paul's, Kandy, 1940-45; Offg. Chaplain, 34th Indian Divn., 1942-45; consecrated Asstt. Bishop of Colombo, 1945; first Bishop of Kurunagala Diocese, Ceylon, 1950; Metropolitan, Calcutta Diocese, 1962; Canon of St. George's Cathedral, Jerusalem, 1962; Life Member, Asiatic Society; Pres., Calcutta Historical Society, 1963; Chairman: Leprosy Mission, India Auxiliary, 1966; Bible Society of India, 1967. Address: Bishop's House, 51, Chowringhee Road, Calcutta 16.

DEO, Ramchandra Gopal, B.Sc., A.I.S.M. (Min. Eng.), F.C.C. (Coal & Metal), M.M.G.I., Director-General of Mines Safety, Govt. of India, since Nov. 1967. b. July 8, 1913; Educ.: Nagpur Univ.; Indian School of Mines, Dhanbad. Held important posts in the Deptt. of Mines till he became Addl. Chief Inspector of Mines in 1961; Pres., Coal Mines Rescue Station Cttee., 1958-61; I.L.O., E.P. Fellow to U.S.S.R., Czechoslovakia and Poland, 1965-66: I.L.O. panel of consultants since 1967. Chairman: Mines Safety Edn. Cttee., since 1967; Mines Safety Equipment Cttee., since 1967; Boards of (Coal & Met.) Mining Examinations since 1967; National Council for Safety in Mines since 1967; Cttee. to go into problems of disabled miners since 1967 and several other cttees; Pres., Mining Geological and Metallurgical Instt. of India, 1969-70. Address: Hirapur, Dhanbad.

DESAI, Dajiba Balavantrao, B.A. (Hons.), LL.B., Ex-M.P. (Rajya Sabha), General Secretary: Peasants and Workers Party, since 1955 and Samyukta Maharashtra Samiti; Editor, Rashtraveer (weekly). Educ.: Maratha Mandal's High School and Gilginchi Artal High School, Belgaum; Lingaraj Coll., Belgaum; Rajaram Coll., Kolhapur; Raja Lakhmagauda Law Coll., Belgaum. Joined Peasants and Workers Party, 1948; member: Central Committee of P. & W. Party, since inception; Political Cttee. of P. & W. Party; detained in prison, April 1956; released, Oct. 1956; Secretary, Border Action Cttee.; Pres., Dakshin Maharashtra Shikshan Mandal, Belgaum. Publications: Marathi: Jamin Konachi? Kasel Tyachi Ki Vikat Ghenaryachi. Address: 42, Vijaynagar — Hindalaga, Belgaum.

DESAI, Dinkarrai Chhotubhai, B.E. (Civil), (formerly) IRSE, IRIS, MIE, MRSH, FPW Inst., AMI Struct E., Engineer, Estate Valuer, Author, Researcher and Consultant on Health, Nutrition, Nature Cure, Christology, Fertilisers, Pathology and Veganism. b. May 10, 1907. Served E.I. Rly. in various capacities, 1929-48; Govt. Inspector of Rlys., Bangalore, Calcutta and Bombay, 1949-58; Commissioner of Railway Safety in India, 1959-65; Founder: Religion of Compassion, International Research Centre for World problems etc. Publications: In Quest of Rly. Safety; Scientific Basis of Nature Cure, also several pamphlets, and articles on Philosophy, Vegetarianism, Nature Cure, Veganism, Agriculture and Compassion; Research activities: Origin of Christianity; Pythagoreanism; Germ Theory of Diseases, etc. Address: Karuna Mandir, Tithal Road, Bulsar (W. Rly.).

DESAI, Doulatrao Shripatrao, B.A., LL.B., Ex-Minister for Revenue, Maharashtra State, 1967-70; has been Dy. Leader, Maharashtra Leg. Cong. Party, since March, 1964; Chairman, Film Adv. Cttee., since Aug. 22, 1967. b. March 10, 1910, at Marali, Dist. North Satara; Educ.: Rajaram High School, Rajaram Coll. & Sykes Law Coll.

Kolhapur. Commenced practice at Karad & Patan, 1939; Pres., Dist. Local Board, Satara, 1941-52; member: Provincial Edu. Board; Maharashtra Pradesh Social Edu. Board; Bombay State Road Transport Corpn., 1955-57; Pres., Central Adv. Cttee. of Regulated Markets in Maharashtra; Gen. Secy., P.C.C., 1952-57; Chief Whip Congress Leg. Party; M.L.A., Bombay from Patan Constituency since 1952; Min., P.W.D., Bombay Govt., 1957-60; Edu. Min., Maharashtra, 1960-62; Min. for Agr., 1962-63; Min. for Home, Maharashtra State, 1963-67; only candidate elected unopposed to the Maharashtra State Leg. Assembly in Gen. Elections, 1967; resigned as Minister, July 4, 1970. Address: C/o Sachivalaya, Bombay 32.

DESAI, Hitendra Kanaiyalal, B.A., LL.B., Chief Min., in charge of Home, Plng., Gen. Adm., Information, Gujarat State, since March 1967. b. Aug. 9, 1915, at Surat; Educ.: Surat and Bombay; awarded "Codben Club Medal" by Bombay Univ.; was Fellow for a year. Started practising law & made a mark in legal profession; courted jail during freedom movement; Chairman: Law Cttee., 1946.49; Stg. Cttee., since 1949; Vice-Pres. and Chairman, Stg. Cttee., since 1952; member, Senate, Gujarat Univ. and Rural Advisory Cttee. of All India Radio; M.L.A., Bombay from the Mangrol Constituency, 1957; Min. for Edu., Bombay State, 1957-60; Gujarat State 1960.62; Min. for Edu., Social Welfare, Rehab., Agr. & Forest, Excise and Prohibition; elected Dy. Leader, Gujarat Leg. Congress Party, Sept. 19, 1963; Min. for Home, 1963-65; appted. leader of the House, since Feb. 17, 1964 and Chief Min. from Oct. 1, 1965. Publications: Several popular bocklets on political, economic and social topics. Address: Sachivalaya, Ahmedabad 15.

DESAI, Kantilal Thakordas, B.A. LL.B., Chairman, Bennett, Coleman & Co. Ltd., Bombay, since Aug. 25, 1969; Vice-Chairman, State Bank of India, 1966-June 30, 1970. b. May 23, 1903; Educ.: New High School and St. Xavier's High School, Bombay; Elphinstone, Wilson and Govt. Law Colleges, Bombay; passed his Articled Clerks Examination which qualified him to practise as a solicitor, 1928 and Advocate (O.S.) Exam., 1930. Started practice on the original side, Bombay High Court, 1930; Judge, Bombay High Court, 1957-60; was Presiding Officer, National Industrial Tribunal (Bank Disputes); Judge, Gujarat High Court, 1960-61; appointed Chief Justice, Jan. 26, 1961; retired, May 1963; appointed by the Govt. of India as Chairman, Marine Services Enquiry Cttee. to make recommendations regarding service conditions of Pilots, Dredging Masters and other Officers in the employment of Bombay, Port Trust, 1967 and in respect of other major ports of India, i.e., Calcutta, Madras, Vizag, Cochin, Paradip, Kandla and Mormugao, 1968; is Chairman: Board of Visitors for the St. George's Hospital, Bombay; Commission of Enquiry set up by the Govt. of Maharashtra to go into the question of private practice being allowed to full-time Govt. Medical Officers. Address: Archana, Plot No. 265, 12th Road, Khar, Bombay 52.

DESAI, Khandubhai Kasanji, Snatak (Gujarat Vidyapith, Ahmedabad), Governor of Andhra Pradesh since April 11, 1968. b. Oct. 23, 1898; Educ.: Bulsar, Bai Avabai High School; Wilson Coll., Bombay. Joined the N. C. Movement, 1920; Gen. Secy. Textile Labour Assoc., Ahmedabad; elected M.L.A., Bombay, 1937; elected to the Constituent Assembly, 1946; was Vice-Chairman, B.P.C.C.; member, A.I.C.C. and Congress Wkg. Cttee. for several years; Board of Trade, New Delhi; National Defence Council, Govt. of India; foulder of the

I.N.T.U.C., 1947 and its first Gen. Secy.; was its Pressuccessively for three years; Ex-Min. for Labour, Govt. of India; Chairman: Board of Dir., Oil India Ltd.; Public Sector Award Cttee.; member, High Powered Cttee. to assess progress of the khadi & village industries; visited China. Address: Raj Bhavan, Hyderabad; Textile Labour Assoen., Gandhi Majoor Sevalaya, Bhadra, Ahmedabad.

DESAI, Minoo Barjorji, J.P., Editor, Bombay Samachar, Bombay. b. July 1, 1919, at Navsari. A staunch Congressman from a very early age; took active part in the freedom movement; joined Mumbai Vartman and worked for the 'Quit India Movement'; became its News Editor and subsequently Dy. Chief Editor; was Editor, Sanj Vartman annual and monthly; member, Emergency Press Advisory Cttee. and Press Accreditation Cttee., Govt. of Maharashtra; visited U.K., West Germany and Mauritius; has been giving talks on social, literary and cultural subjects from the A.I.R.; is actively associated with many social and educational organisations. Publications: Author of 20 books - one - An Elegy on Mahatma Gandhi (won the Govt. of India prize); Vidhyarthi Natika (won the Govt. of Gujarat prize as the best work in Gujarati for the period). Address Kartar Bhavan, Behind Radio Club, Colaba, Bombay 5.

DESAI, Morarji Ranchhodji, B.A., M.P. (Lok Sabha). b. Feb. 29, 1896; Educ.: Bulsar, Bulsar Dist., Gujarat; Wilson Coll., Bombay. Entered Provincial Civil Service of the Govt. of Bombay, 1918; resigned to join the C.D. Movement, 1930, and was convicted, 1930-34; Secy., Gujarat P.C.C., 1931-37 and 1939-46; Min. for Revenue, Co-op., Agr. and Forests, Bombay, 1937-39; convicted, 1940-41 and detained in prison, 1942-45; Min. for Home and Revenue, Bombay, 1946-52; Chief Min. of Bombay, 1952-56; Min. for Commerce and Industry, Govt. of India, 1956-58; resigned the Ministership to do party work, Aug. 1963. Treasurer, A.I.C.C., 1950-58; Hon. Fellow, Coll. of Physicians and Surgeons, Bombay, 1956; Hon. Doctor of Laws, Karnatak Univ., 1957; in connection with foreign aid to India, visited London, Montreal, 1958, France, Switzerland, U.S.A., Japan, 1959, the Soviet Union, Egypt, 1960 and other European countries, 1958-60; attended the Commonwealth Fin. Ministers' Cfce. in Lond., 1959, '60 & '68; Union Fin. Min., 1958-63; Chairman, Adm. Reforms Commn., Govt. of India, 1966-67; Chancellor, Gujarat Vidyapeeth, Ahmedabad; Chairman: Navjivan Trust; All-India Prohibition Council; Adv. Board of Hindustani Prachar Sabha; The Collected Works of Mahatma Gandhi; Trustee: Gandhi Smarak Nidhi; Gandhi Peace Foundation; Kasturba Trust: elected to the Lok Sabha from Surat, 1967; Dy. Prime Minister & Min. for Finance, Govt. of India, 1967-69. Publication: My View (1966). Address: 5, Dupleix Road, New Delhi.

DESHMUKH, Chintaman Dwarkanath, B.A. (Cantab). Bar-at-Law, Hon. Doctor of Laws by Univs. of: Princeton, New Jersey, and Leicester, U.K. (1963); Mysore, Osmania, Hyderabad, (1957); Hon. D.Sc. by Univs. of Calcutta (1957), Karnatak, Dharwar, (1963); Indian Statistical Instt., Calcutta (1965); Hon. Doctor of Letters by Univs. of Annamalai (1957), Allahabad (1958); Hon. D. Litt. by Univs. of Nagpur and Punjab (1959); Chairman, Adm. Staff Coll., Hyderabad, since Jan. 1960; Pres.: India International Centre since March 1959; Institute of Economic Growth, Delhi, since 1965; Chairman. Ind. National Cttee., World Univ. Services; b. Jan. 14, 1896; Educ.: Elphinstone Coll., Bombay & Jesus Coll., Cambridge; Entered the I.C.S. Nov. 1919; held important positions in the Govt. of India till he became Dy. Governor,

Reserve Bank, 1941-43; Governor, 1943-49; Governor for India on I.M.F. & I.B.R.D., from 1946; member, Plng. Commn., March 1950; Chairman, I.M.F. & I.B.R.D., Sept. 1950; M.P. and Union Min. of Fin., 1950-56; Chairman: Univ. Grants Commn., 1956-60; Vice-Chancellor, Delhi Univ., 1962-67; Chairman: National Book Trust, 1957-Sept. 1960; Central Sanskrit Board, 1968-69. Address: 40, Lodi Estate, New Delhi 3.

DESHMUKH, Dr. Smt. Durgabai, M.A., B.L., Hon. Doctor of Laws by Andhra Univ. (1963), Founder Pres., Andhra Mahila Sabha, Madras & Hyderabad. Advocate, Supreme Court of India; Hon. Dir., Council for Social Devpt., India Intnl. Centre, New Delhi. b. July 1910; Educ.: Banaras, Andhra and Madras Univs. Member, Constituent Assembly and Provisional Parliament of India 1946-52; practised as lawyer, 1942-52; Member: Plng. Commn., 1952-53; Chairman: Central Social Welfare Board, 1953-62; National Cttee. on Girls' and Women's Educ., Govt. of India 1958-61; Editorial Cttee. for Social Welfare in India and Social Legislation; Editorial Board on Encyclopaedia of Social Work in India. Address: 40, Lodi Estate, New Delhi 3.

DESHPANDE, Atmaram Raoji, B.A. (Hons.), LL.B., Marathi Poet; Adv., Social Educ., Min of Educ., 1961-65; Vice-Pres., Indian Adult Educ. Assocn.; member, Gen. Council of Sahitya Akademi. b. Sept. 11, 1901; Educ.: Hindu High School, Amravati; Fergusson Coll., Poona. Lawyer (1925-28); Civil Judge & Dist. & Sessions Judge, 1920-47; UNESCO Fellowship (1956); Dir., National Fundamental Educ. Centre, 1956-61; Chairman, Cttee. of Literary Experts, UNESCO, Paris, 1962; led Indian Literacy delegation to U.S.S.R., 1963; Pres. All India Adult Education Confee. (1967). Publications: Three collections of poems besides two longer poems; several articles on literary criticism & social education. Address: 88, West Park, Dhantoli, Nagpur 1.

DESHPANDE, Purushottam Laxman, M.A., LL.B., Padma Shri (1966), Sangeet Natak Akademi Award (1967), Writer, Actor & Producer of Plays in Marathi and a distinguished speaker. b. Nov. 8, 1919; Educ.: Bombay & Poona. Wrote scripts, acted & directed music in Marathi films; was the first Chief Producer, A.I.R. Television, Delhi; was trained in the B.B.C.; did one-man shows on the Marathi stage namely Batatyachi Chawl, etc.; estd. Pu. La. Deshpande Foundation, to promote cultural & national activities; Vyakti Ani Valli, won the Sahitya Akademi award, 1966. Publications: Plays, travellogues, collection of humorous articles & sketches; won State awards practically for all publications. Address: Muktangan, 15/B, Sarojini Naidu Road, Santa Cruz West, Bombay 54; 5, Ajmal Road, Vile Parle (East), Bombay 57.

Ghanashyam, Vishnu DESHPANDE, M.L.C., Morris Memorial Fellow of Nagpur Univ. (1934-37), Sir Arthur Blenner Hasett Medalist (Nagpur Univ.), Ex-Pres., Hindu Mahasabha; Editor, Free Hindusthan. b. Nov. 17, 1911; Educ.: Nagpur. Joined the Hindu Mahasabha, 1939; elected Gen. Secy.: M.P. Hindu Mahasabha, 1939; All-India Hindu Mahasabha, 1940; imprisoned several times for activities in the Hindu Mahasabha, and Jammu Movement; elected to the Lok Sabha, 1952; participated in Samyukta Maharashtra movement; was the Chief Whip of the National Democratic Party in Lok Sabha; was Editor, Adesh and Hindu Outlook; joined Bharatiya Jan Sangh, Dec. 1966; elected M.L.C. Maharashtra from Vidarbha Graduate Const., 1968. Address: Veer Savarkar Charak, Mehkar, Buldana District, Maharashtra.

DEV, Col. Vellor Vasu, M.A., Chairman, Coir Board and Marine Products Export Promotion Council, since May 1968. b. Aug. 2, 1910; Educ.: Presidency Coll., Madras, Served in the Army till 1956; visited several countries in Europe as Member-Secy., Indian Trade Delegation; Trade Commissioner, British East Africa and Central Africa, 1959; Deputy Secy., Min. of Commerce; elected Vice-Press., International Shrimp Council, Washington, June 1968; visited the U.S., Mexico, U.K. and Continental countries as leader, Indian Seafood Delegation, 1968; Vice-Chairman, Asian Coconut Community. Address: Chairman, Coir Board, M. G. Road, Ernakulam, Cochin 16.

DEVARAJALU, G. K., a leading industrialist; Pres., All India Organisation of Industrial Employers, 1970-72; Chairman, Indian Cotton Mills Federation, 1965-67. b. Dec. 7, 1912. Mg. Agent & Dir.: Lakshmi Machine Works Ltd.; Lakshmi Mills Co. Ltd., Coimbatore Cotton Mills Ltd.; Mg. Dir., South India Viscose Ltd.; Dir.: New India Assurance Co., Bombay, Dhrangadhra Chemicals Ltd., Bombay, Premier Mills (CBE) Ltd., Vijayeswari Textiles Ltd., & other Cos.; Mg. Trustee, G. Kuppuswamy Naidu Memorial Trust for Educ. & Medical Relief: Ex. Chairman: South India Textile Research Assoc., Coimbatore; Exec. Cttee. member, F.I.C.C. & I., New Delhi; widely travelled in Europe, America and Far East countries. Address: 'Shell House', Avanashi Road, Coimbatore.

DEVI, Smt. Bindhya Basini, Musician; Folk Music Producer, A. I. R., Patna. b. 1918 at Muzaffarpur; Educ: Visharad, Hindi Univ., Aligarh; Sahitya Bhushan, Hindi Vidyapeeth, Deogarh; Bhatkhande Sangeeth Vidyapith, Lucknow. A pioneer of folk songs, folk dance and folk drama of Bihar; started composing and research of folk songs, ballets and dances of Bihar from 1935; elected member, Gen. Council Sangeet Natak Akademi, New Delhi, for seven years, awarded "Lok Sangeet Visharda" by the late Acharya Seopujan Sahay; her folk songs were recorded by HMV and Regional Pictures, Bihar. Publications: Manaw; Lok Sangeet Sagar; Vaishali Mahima: several folk stories. Address: C/o. Vindhya Kala Mandir, Kankarbagh, P. O. Chitragupta Nagar, Patna 16.

DHADDA, Siddha Raj, M.A. (Pol.), LL.B., Social Workers; Writer and Journalist; Pres., Rajasthan Samagra Seva Sangh (Sarvodaya Organisation); Chairman, Kumarappa Institute of Gramswaraj; Vice-Chairman, Rajasthan Sevak Sangh. b. Feb. 1909; Educ.: Maharaja's Coll., Jaipur; Canning Coll., Lucknow Univ., and the Allahabad Univ. Secy.: Indian Chamber of Commerce, Calcutta; Indian Sugar Mills Assocn. and various other affiliated bodies, 1934-42; has been connected with various pol., social and cultural orgs.; courted jail in freedom movement; Founder and Chief Editor, Daily Lokvani from Jaipur, 1946-49; Gen. Sec., Rajputana P.C.C., 1947-48; Min. for Industries and Commerce, Rajasthan, 1949-51; has been in the Sarvodaya Movement since 1951. Publications: Decentralised Economic Order (Hindi); contributes to English, Hindi periodicals. Address: Chaura Rasta, Jaipur 3.

DHAMIJA, Jagan Nath, M.A. (Cantab.), Barrister-at-Law, Ambassador to the Netherlands. b. Aug. 17, 1913; Educ.: Emmanuel Coll., Cambridge; Lincolns Inn., London. In the political deptt., Govt. of India, 1944–49; Secy. and Adviser, Indian Delegation to U.N. General Assembly Session, Sept., 1948; First Secy., Indian High Commn. in Australia, 1949–52; was Acting

High Commr.; Officer on Spl. Duty., Ext. Affairs Min., 1952; Dy. Secy., Min. of States (later Min. of Home Affairs), 1953–58; Commr. for India in Mauritius, 1958–60; Amb. to Afghanistan, 1960-64; Chief of Protocol and Conllr. Gen. of Emigration, Govt. of India, Min. of Ext. Affairs, 1964-66; Amb. to Czechoslovakia, 1966-69. Address: C/o. Ministry of External Affairs, Govt. of India, New Delhi.

DHARMAKUMARSINHJI, R. S., Vice-Chairman and Regional Secy., Indian Board for Wild Life. b. April, 1917; Educ.: Harrow (Public School); Samaldas Coll., Bhavnagar. Spl. Officer on duty, Min of States, Govt. of India, to make rapid survey of wild life and game in the State Unions, 1950; Vice-Chairman, I.B.W.L., 1952; Wild Life Preservation Officer, Bombay, 1955; elected Pres., Bombay Aquarium Soc., 1957; Pres., Expert Cttee. on Nat. Parks and Sanctuaries, 1969. Publications: Birds of Saurashtra, 1954; won 1st prize for A Field Guide to Big Game Census in India. Address: 26, Lotus Court, Jamshedji Tata Road, Bombay 20.

DHAVAN, Shanti Swaroop, Governor of West Bengal, since Sept. 1969. b. July 2, 1905; Educ.: Govt. Coll. and Forman Christian Coll., Lahore; graduated in History; graduated in History and Law, Cambridge Univ.; called to the Bar from Middle Temple; studied at Bonn and Heidelberg Univs.; a keen sportsman; Cambridge tennis champion for three successive years; Pres., Cambridge Univ. Union. Enrolled as Advocate, Allahabad High Court; lecturer in Law, Allahabad Univ., 1940–54; Senior Standing Counsel for U.P. Govt., 1956–58; Judge, 1958; founder-member and Secy., Bernard Shaw Society; ex-Pres., U.P. Section, Indo-Soviet Cultural Society; led cultural delegation to Russia, 1966; High Commissioner for India in the U.K., 1968–69. Address: Raj Bhavan, Calcutta 1.

DHEBAR, Uchhrangrai Navalshanker, Chairman, Khadi & Village Industries Commn. since 1963; Ex-Pres., Indian National Congress; High Court Pleader. b. Sept. 21, 1905; Educ.: Rajkot and Bombay. Practised as a lawyer in Rajkot, 1929-36; Secy., Gujarat P.C.C., 1945-47; imprisoned several times in the freedom movement; Chief Min., Saurashtra, 1948-54; elected Pres., Indian National Cong. for the 3rd term during the 63rd Session of Cong., Nov. 1957-Feb. 1959; Member, A.I.C.C., Wkg. Cttee., 1955-63; Chairman, Scheduled Areas & Scheduled Tribes Commn., 1960-61; M.P., 1962-63. Address: Irla Road, Vile Parle, Bombay 56.

DIAS, Anthony Lancelot, B.A. (Econ. Hons.), Bombay, B.Sc., (Econ.) London, I.C.S.; Lieut. Governor, Tripura, since Jan. 31, 1970. b. March 13, 1910; Educ.: Deccan Coll., Poona; London School of Economics, London; Magdalene Coll., Cambridge; Dakshina Fellow, Gobden Club Medal (Bombay Univ.), The Hugh Lewis Prize (London School of Economics). Entered I.C.S., 1933, served in various capacities as Asstt. Collr., Collr., Dir. of Land Records & Settlement Commr., Secy. & Supply Commr., Food & Civil Supplies Deptt., 1947-52; Secy., Edu. Deptt. 1952-55; Secy., Agr. Deptt., 1955-57; Home Deptt., 1957-60; Chairman: Modern Bakeries (India) Ltd.; Central Warehousing Corpn; Bombay Port Trust, 1960-64; Secy., Dept. of Food, Min. of Food & Agri., 1964-70. Address: Raj Niwas, Agartala, Tripura.

DIEHL, H.E. Mr. Guenter, Ambassador of the Federal Republic of Germany to India, since April 18, 1970. b. 1916; Educ.: Cologne and Bordeaux. Academic Asstt., Cultural Deptt., 1939; served in the German Embassies at Brussels and Paris during World War II;

a journalist, 1944-50; Press and Information Office, Federal Republic of Germany, 1950-52; Spokesman in the Foreign office, Min. of Foreign Affairs, Bonn, 1952-56; Minister, German Embassy, Santiago, 1956-60; Press and Information Office, Federal Republic of Germany, 1960-66; Head of Planning Dept., Min. of Foreign Affairs, 1966-67; Secy. of State at Bonn, 1968-70. Address: 6, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 21.

DINKAR, Ramdhari Sinha, B.A. (Patna), D. Lit. (H. Causa), 1962, Vidya Vachaspati (H. Causa), 1965; Padma Bhushan (1959), Vice-Chancellor, Bhagalpur Univ., 1964-65; Hindi Adv. to the Union Govt.; Hindi Poet. b. Sept. 23, 1908. Prof. of Hindi, 1950-52; Congress M.P., Rajya Sabha, 1952-64; Sahitya Akademi Award (1960) for Sanskriti ke char Adhyay; represented Indian poetry in the Intn'l. Cfee. of Poets, Poland, 1955; visited China at the invitation of the Writers' Union of China 1957; visited U.S.S.R., 1961; led a cultural delegation to Mauritius, 1967; visited W. Germany, 1968. Publications: 26 volumes of Hindi poems and 24 volumes of prose besides some books for children. Address: 5, Safdarjang Lane, New Delhi.

DIVAN, Gautam Ramanlal, B.Com., F.C.A., Arjuna Award (1965), a leading Table-Tennis Player; Partner, Chandabhoy & Jassoobhoy, Chartered Accountants, Bombay. b. July 22, 1940; Educ.: St. Xavier's High School, & Sydenham Coll. of Commerce & Economics, Bombay. National Champion in Table-Tennis 1956-59, 1964 and 1965; rep. India in Intn'l. Competitions, 1957-67; connected with Org. of Table-Tennis in Maharashtra since 1961; is Treasurer, Maharashtra State Table-Tennis Assoc. Address: 22, Alexandra Road, Bombay-7.

DIVAN, Smt. Sharda Baburao, M.A. (Bombay), Vice-Chancellor, S.N.D.T. Univ., since Dec. 1969; Member, Advisory Body, All India Radio. b. Jan. 31, 1903; Educ.: B.A. History-Economics, M.A. (Bombay Univ.) with Thesis on "Population Problem of India". Is a prominent social worker and educationist; Dean, Faculty of Arts, S.N.D.T. Univ., 1957-69. Address: "Purivilla", 20, Laburnum Road, Bombay 7.

DIWAKAR, Ranganath Ramachandra, M.A., Chairman: Gandhi Smarak Nidhi, since Sept. 1957; Gandhi Peace Foundation since 1959; Chief Editor, Bihar Through the Ages and Karnatak Through the Ages. b. Sept. 30, 1894 in Dharwar; Educ.: Belgaum, Hubli, Poona and Bombay. Joined N.C. Movement in 1921; Pres., K.P.C.C., 1930-34; often jailed in the freedom movement; started People's Educ. Trust at Hubli, 1935; member, P.E.N.; author of numerous books (inc. translations) in Kannada, Hindi and English; was M.P.; was member, A.I.C.C.; Union Min. of State, Information and Broadcasting 1948-52; Governor of Bihar (1952-57); Sole Trustee, P.E. Trust; Editor, Samyukta Karnatak (daily), Kasturi (monthly). Publications: (Eng.) Saga of Satyagraha: Glimpses of Gandhiji; Upanishads in Story and Dialogue; Satyagraha Pathway to Peace; Mahayogi; Paramahansa Sri Ramkrishna; etc. Address: 2, Residency Road, Bangalore 25.

DOGRA, Pandit Girdhari Lal, B.A., LL.B., Min. for Revenue, Relief and Rehabilitation, Jammu and Kashmir, since March 1967. b. July 1915; Educ.: Hindu Sabha Coll., Amritsar; Law Coll., Lahore. Advocate, Jammu and Kashmir High Court and Supreme Court of India; took prominent part in the Jammu & Kashmir National Conference movement; was Emergency Officer, Kathua Dist. during the Tribal raid from Pakistan into Kashmir in 1947; elected member, J. & K. Constituent Assembly,

1951; Pres., Provincial National Conference, Jammu; Chairman of the Drafting Cttee. of the Constituent Assembly of State; Min., J. & K. State, 1947-57 & 1961-63. Minister for Finance & Industry, Jammu-Kashmir, 1964-67. Address: Srinagar.

DRAVID, Vyanktesh Vishnu, B.Sc., Ex-Pres., I.N.T.U.C.; Ex-Min., Madhya Pradesh. b. Aug. 10, 1913; Educ.: Victoria Coll., Gwalior. Took part in the labour movement in Indore and Ahmedabad with Mr. Gulzarilal Nanda; jailed in the Freedom Movement; was Min. for Labour and Local Self-Govt. in Indore State; Min. for Commerce, Industries and Labour, M.B., 1948; Leader, Indian Delegation to Geneva, 1959; elected M.L.A., in the Gen. Elections; was Devpt. and Labour Min., M.B.; Min. for Agr., Chambal Project, Labour and Housing, M.P., 1956; resigned in Feb. 1964 to undertake the organisational work of INTUC; Pres.: Indore Mill Mazdoor Sangh, M.P.; Vice-Pres., I.N.T.U.C. Address: Shram Shibir, Indore.

DURAISWAMI, Dr. Puliyur Krishnaswami, M.B.B.S. (Madras), M.S. (Madras), M. Ch. Orth. (Liverpool), F.R.C.S. (England), Ph.D. (Liverpool), Padma Bhushan (1966), Director-General of Health Services, Govt. of India, since June 14, 1968. b. April 23, 1912; Educ.: Madras and U.K. Served Univ. of Liverpool, U.K., 1947-51; Johns Hopkins Univ., U.S.A., 1951-53; Dir.-Prof., Central Instt. of Orthopaedics, N. Delhi, 1960-67; Adviser in Rehab., D.G. of Health Services, 1964-67; Senior Dy. D.G., & then Addl. D.G., 1967-68; Founder Fellow, Indian Academy of Medical Sciences, 1961; Robert Jones Research Fellowship by the Univ. of Liverpool (1949) and four other honours for his original research on congenital skeletal defects; member: American Academy of Orthopaedic Surgeons; Intntl. Soc. of Orthop. Surgery & its Exe. Cttee.; Pres., Ind. Orthop. Assn., 1966. Address: Nirman Bhawan, 4th floor, Room No. 446, New Delhi 11.

DUTT, Rabindra Chandra, B.A. (Econ.) (Hons.) (Calcutta), Econ. Tripos (Cantab.), I.C.S., Secy., Min. of Steel & Heavy Engineering, Govt. of India, since Feb. 1969. b. Nov. 5, 1912; Educ.: Presidency Coll., Calcutta; Corpus Christi Coll., Cambridge; passed I.C.S., 1936. Held several posts in West Bengal, 1937-47; Jt. Secy., Home Min., from 1953; Establishment Officer, Govt. of India, 1956-58; Mg. Dir., and subsequently Chairman, National Coal Devpt. Corpn., 1959-64; Secy., Min. of Fin., Deptt. of Company Affairs & Ins., 1964-65, Rev. & Ins. since Nov. 10, 1965; Secy., Rev. and Ins., Min. of Fin. and Dir. Gen., Bureau of Public Enterprises, Govt. of India, 1966-67; Secy., Min. of Tourism & Civil Aviation, Govt. of India, 1967-69; Life member, Ind. Instt. of Pub. Adm. Publications: Romesh Chunder Dutt. Address: 3, Kautilya Marg, Chanakyapuri, New Delhi.

DUTTA, Sarat Kumar, B.A. (Cal.), B.Sc. (Lond.), Barrister-at-Law, Vice-Chancellor, Kurukshetra University, since Feb. 16, 1970. b. Jan. 31, 1908; Educ.: Dibrugarh Govt. High School; Presidency Coll., Calcutta; Univ. Coll., London; called to the Bar from Middle Temple, London, 1933. Practised in Calcutta High Court, 1933-37; Principal, Govt. Law Coll., Gauhati, 1937-48; Dean, Faculty of Law, Gauhati Univ., 1948-50; Legal Remembrancer and Secy., Leg. and Judicial Deptts., Govt. of Assam, 1950-55; Dist. and Sessions Judge, 1955-61; member, Court and Exec. Council, Gauhati Univ., 1948-61; Judge, Assam and Nagaland High Court, 1961-68; Chief Justice, Assam and Nagaland High Court, 1968-70. Publications: Prolegomena to the New Reforms; Edited: History of Assam, History of Jayantia. Address: Kurukshetra University, Kurukshetra (Haryana).

DVORAK, H.E. Mr. Richard, Ambassador of Czechoslovakia in India, since Sept. 1967. b. Dec. 28, 1913; Educ.: Academy of Commerce & Free School of Political Science, Prague. Worked in the Czech Bank, Prague; imprisoned during the period of the Second World War in various German concentration camps for his anti-Hitlerite activities; elected Chairman, Dist. National Cttee., West Bohemia, 1946; Dy. Minister of Foreign Trade, 1949-52; Minister of Foreign Trade, 1952-59; Ambassador to Moscow, 1959-63; Minister of Finance, 1963-67; Member of Parliament, 1948-67; speaks Russian, English, French and German; has won various awards and decorations. Address: 45-46, Sunder Nagar, New Delhi.

DWARKA: His Holiness the Jagadguru Shankaracharya Swami Shri Abhinava Sachchidanand Teerthji Maharaj of Sharada Peeth, of. Is an outstanding spiritual Head of western India. b. Sept. 25, 1919; Educ. Studied privately. Took holy orders, 1934; installed at Dwarka on the holy seat of Shri Shankaracharya of western India, June 20, 1945; is a scholar and linguist; visited Holy Himalayan high peaks and Holy Mount Kailas and sacred lake Mansarovar in Tibet; Pres., All-India Dharma Sangh Cfce., several times; recognised by the Govt. as the Shankaracharya of Dwarka and a Primate of Hinduism; Founder and Pres. of: Shri Sharada Peeth Vidyasabha; Dwarka-Samsthan-Adhyatma Kendra at Bangalore; inaugurated IV & V International Yoga Conventions at Gondia (1967) & Raigarh, 1968; is a patron, Vishwa Hindu Parishad. Publications: Several books in Gujarati, English, Kannada, Sanskrit and Hindi; "Nav-Bharati" a Gujarati monthly. Address: Dwarka (W. Rly.).

DWIVEDY, Surendranath, M.P. (Lok Sabha) and leader of the P.S.P. group in Parliament. b. Feb. 11, 1913. Joined the Congress 1930; courted jail in the freedom movement; Founder member, Congress Socialist Party, 1934; a working journalist, 1934-42; Founder and editor for several years of Oriya weekly 'Krishak'; elected Secy., Cuttack D.C.C., 1940; member, A.I.C.C., 1940-48; General Secy., Utkal P.C.C., 1946-47; resigned from Congress, 1948; elected member, National Exec., Socialist Party, 1947 and of P.S.P. every year; was Provincial Secy. and Chairman, Utkal P.S.P. and S.P.; member, Rajya Sabha, 1952-56; Dy. Chairman, P.S.P., 1958-62; member, Lok Sabha, elected from Kendrapara (Cuttack) since 1957. Delegate, Inter-Parliamentary Union Confee, Lima, Peru (1968). Publications: Oriya translations of Mr. Nehru's Autobiography and Glimpses of World History; National Movement in India; Asia on the Path of Socialism; Political Corruption in India, etc. Address: Telengalazar, Cuttack 1, Orissa; 21, Canning Lane, New Delhi.

ESWARAN, Kulathu Iyer, Business man. b. March 8, 1909; Educ.: Tirthapathi High School, Ambasamudram. Chairman and Managing Dir.: Hackbridge-Hewittic and Easun Ltd.; Eswaran & Sons Engineers Pvt. Ltd.; Chairman & Director, Easun Products of India P. Ltd.; Director, Easun Engg. Co. Ltd., Madras Refineries Ltd., etc.; Vice-Pres., Madras Productivity Council, Hindustan Chamber of Commerce, Madras : Regional Dy. Chairman, Engg. Export Promotion Council (S. Region); Member: Development Council for Heavy Electrical Industries; Industrial Development Sub-Cttee., F.I.C.C.I.; Labour Advisory Group of Employers' Reps., Govt. of Madras; Pres., Hindustan Chamber of Commerce, Madras, 1969-70; Chairman, Indian Engg. Assoc. (Southern Region) for 1970-71; Address: Residence: "Sudhama", Sir Desikachari Road, Madras 4; Office: 5-7, Second Line Beach, Madras 1.

GADE, Hari Ambadas, B.Sc., B.T., G.D. Art, A.M., Painter, art educationist. b. Aug. 15, 1917; Educ.: Nagpur and Bombay. Held several one man's exhibitions in impart centres. Went on a study tour to European countries, 1955-56; represented in public and private collections in India and abroad. Address: 70-T, Central Avenue, Chembur, Bombay 71; Central Institute of Education, Delhi 7.

GADGIL, Dr. Dhananjay Ramachandra, M.A., M. Litt. (Cantab.), D.Litt., Dy. Chairman, Planning Commission, since Sept. 1, 1967. b. 1901; Educ.: Patwardhan High School, Nagpur & Queens' Coll., Cambridge. Dir., Gokhale Inst. of Politics & Economics from 1930; Chairman, Agri. Fin. Sub-Cttee., Govt. of India, 1944-45; member: National Income Cttee., 1950-52; U.N. Group on Devpt. of Underdeveloped Countries, 1951; Cttee. of Direction, Rural Credit Survey, 1951-54; Pres., Indian Eco. Assoc., 1940; Chairman: Programme Cttee., Intnl. Instt. of Pacific Relations, 1950-54; Maharashtra State Co-op. Bank Ltd.; member: Central Board of Dirs., State Bank of India; Board of Directors, Agrl. Re-Finance Corpn. of India; Pres., National Fed. of Sugar Co-op. Factories, National Co-op. Union of India; member: Board of Trade; Research Programmes Cttee., Plng. Commission; M.P. (Rajya Sabha) till Aug. 1967; Vice-Chancellor, Poona Univ., 1966-67. Publications: 24 books & many articles & papers; Salaries of Public Officials in India (1931); Regulation of Wages & other problems of Industrial Labour in India (Reprint 1954); Federating India (1945); The Federal Problem in India (1947). Address: 129-B, Erandavana, Poona 4; Planning Commission, New

GADGIL, Gangadhar, M.A., Marathi Writer; Principal and Prof. of Economics, Narsee Monjee Coll., Bombay. b. Aug. 25, 1923; Educ.: Bombay Univ., Harvard and Stanford Univs. under Rockefeller Foundation Fellowship, 1957. Awarded first prize in the Marathi short story competition held under the auspices of the New York Herald Tribune; awarded prizes for his books Talavatalen Chandane, Ole Unha and Sata Samudra Palikade by the Bombay Govt., 1956, 1958, 1960. Publications: Plays: Vedyancha Choukon; Jyotsna ani Jyoti; Novel: Lileeche Phool; Travelogue; Gopuranchya Pradeshat; Collections of short stories: Kadoo ani Goad; Talavatalen Chandane; Bandoo and ten others; Literary Criticism: Khadak ani Panee; Sahityache Manadanda. Address: Principal's Quarters, Narsee Monjee College of Commerce & Economics, Vile Parle (West), Bombay 56 AS.

GAEKWAD OF BARODA: Lt. Col. His Highness Maharaja Fatesinghrao, Furzand-I-Khas-I-Dowlat -I-Englishia, Sena Khas Khel Shamsher Bahadur, Minister for Health, Fisheries and Jails, Govt. of Gujarat since March 1967; Chancellor, Maharaja Sayajirao University, Baroda, since 1951. b. April 2, 1930; Educ.: Privately; M.P. (Lok Sabha) 1957-67; Parly. Secy. to Defence Minister, 1957-62; Member: Indian Board of Wild Life; Exec. Cttee. Congress Party in Parliament 1962-67; Public Accounts Cttee in Parsament 1963-64; Chairman: Board of Governors, National Institute of Sports 1962-63; Baroda Rayon Corporation 1956-66; Pres., Board of Control for Cricket in India, 1963-66; International Trustee of the World Wild Life Fund, Switzerland; World Wild Life Fund (Indian National Appeal), since its inception. Address: Laxmi Vilas Palace, Baroda; Sachivalaya, Ahmedabad 15.

GAJENDRAGADKAR, Dr. Pralhad Bafacharya, M.A., LL.B., LL.D., Vice-Chancellor, Bombay Univ., since March 21, 1966. b. March 16, 1901. Educ.: Bombay Univ.; Dakshina Fellow in Deccan Coll., 1922-24; Jhala

Vendant Prize and Bhagwandas Purshottamdas Sanskrit Scholarship 1924. Joined Bombay Appellate Side Bar, 1926; Judge: Bombay High Court, 1945-57; Supreme Court, 1957-64; Chief Justice of India, 1964-66; Chairman: PTI; Board of Visitors, J.J. Group of Hospitals; National Commn. on Labour, 1967-69; B.H.U. Inquiry Cttee., 1968-69; nominated member, U.G.C.; Pres.: The Asiatic Society of Bombay; Ramakrishna Mission, Bombay; member: Stdg. Cttee., National Integration Council; Dir., P.T.I.; delivered Patel Memorial Lecture Series— 'Kashmir-Retrospect and Prospect', 1966; Nagpur Univ. Extn. lectures on 'Jawaharlal Nehru — A Glimpse of the Man and His Teachings, 1967' Gandhi Memorial Lectures at Nairobi on the Constitution of India, 1968; etc.; recipient of Sir Jehangir Ghandy Medal, 1969. Publications: Sanskrit Text of Nanda Pandit's Dattak Mimamsa and its English Translation; Law, Liberty & Social Justice ; Kashmir - Retrospect & Prospect ; Jawaharlal Nehru - A Glimpse of the Man & His Teachings; The Constitution of India — Its Philosophy and Basic Postulates. Address: Bombay University, Bombay 32.

GANDHI, Smt. Indira, Prime Minister of India, since Jan. 24, 1966, also incharge of Planning and Atomic Energy since Sept. 1967 and Home, since June 1970; is the first woman Prime Min. of the largest democracy in the world and the second in the world. b. Nov. 19, 1917, at Anand Bhavan, Allahabad; Educ. : Allahabad, Poona, Bombay, Visva Bharati Univ., and Somerville Coll., Oxford; learnt world history through letters written to her by her father. Her favourite occupation as a very small child of three in 1920 was to deliver thunderous speeches to the servants, standing on a high table; at four attended her first Congress session, 1921; at the age of 12, organised a Charkha Sangh & "Vanar Sena" of young boys and girls to help the C.D. movement in many ways and to promote it with a strong young base, 1930; has been active in student movements in England and India; took an active part in the India League headed by Mr. V. K. Krishna Menon; became a member of the Congress, 1938; was actively associated with the independence movement; courted imprisonment with her husband in Naini Central Prison during the 1942 "Quit India" movement soon after her marriage; has been active in elections and village mass contact work with spl. reference to women; worked under Mahatma Gandhi's direction in the riot affected areas of Delhi 1947; after independence in 1947, became Jawaharlal Nehru's hostess and later, his closest political aide; accompanied her father on his official visits to several countries; had the opportunity to meet all the world's leading personalities; went on her own on a goodwill mission to several African countries and also to the Soviet Union; became member, Wkg. Cttee., A.I.C.C., 1955; Pres., Women's Deptt., A.I.C.C.; member, Central Election Cttee. and Central Parly. Board of the A.I.C.C.; is connected with several welfare organisations; member: Exec. Board of UNESCO; Central Adv. Board of Edu.; various Trusts and Hospital Cttees.; mountaineering Instt.; Pres.: Bal Bhavan sponsored by the Union Ministry of Edu.; Indian Council for Child Welfare; has founded a co-op. centre in Delhi for the welfare of women and children; Pres. and Founder: Bal Sahyog, New Delhi; Kamala Nehru Vidyalaya, Allahabad; Vice-Pres., Intal. Union for Child Welfare; elected Pres., Indian National Cong., Feb. 1959; was the third in three generations of the Nehru family to succeed to the gadi of the national org.; was the fourth woman in the country elected to this high office; as Pres., Indian National Cong., played an imp. role in the bifurcation of bilingual Bombay into Maharashtra and Gujarat; it was due to her initiative that the first Communist Party Govt. in Kerala was pulled down from office on July 1, 1959; her extensive tour in the country as Pres. of the Cong. and as Chairman of the National Integration Cttee. brought her into intimate touch with the masses and their problems; during the Chinese aggression, flew to the border areas and addressed public meetings there; kept up the morale of the jawans and the public in those areas; as Chairman, Citizens' Central Council, formed after the Chinese attack, has had an opportunity of assessing national sentiments; visited the U.S.A. shortly before her father's death in May 1964 and met Pres. Johnson; Min. for Information and Broadcasting, Govt. of India, June 1964-Jan. 24, 1966; apptd. member, Emergency Cttee. of the Central Cabinet and National Defence Council, July 1964; elected to the Rajya Sabha unopposed from the U.P. Vidhan Sabha Constituency, Aug. 21, 1964; attended the Commonwealth P.M.'s Cfce., 1964; visited the U.K., Yugoslavia and U.S.S.R., Oct. 1964; Chairman, Third Intn'l. Film Festival Cttee., Jan. 8-21, 1965; Chairman, Sangeet Natak Akademi, since Dec. 14, 1965; received: Mother's Award, U.S.A., 1953; Yale Univ. Howland Memorial Prize, 1960; award for "her dedication to the freedom of communication in the world" was presented to her in Chicago by three leading professional journalism societies of the U.S., Jan. 30, 1965; awarded the "Isabella D'este" prize for outstanding ability by the Italian Govt., Nov. 1965; Doctor of Literature (honoris causa) at the Agra Univ. Convocation, Dec. 4, 1965; Hon. Doctor of Law, Waseda Univ., Japan (1969); elected leader, Cong. Parly. Party, Jan. 19, 1966; went on a nine-day foreign tour that took her to four capitals, Paris, Washington, London and Moscow, 1966; Chancellor, Visvabharati Univ. for three years from April 1966; elected to the Lok Sabha from Rae Bareli, Feb. 1967; after the 1967 General Elections, again elected Leader, Cong. Parly. Party, March 12, 1967. Four-day State visit to Ceylon, Sept. 1967; participated in the 50th Oct. Revolution, Moscow, Nov. 1967; went on a 14-day tour of South-East Asia to Singapore, Australia, New Zealand, Malaysia, May-June 1968; went on a 28-day tour of South American Countries, Brazil, Uruguay Argentina, Chile, Colombia, Venezuela, Trinidad and Tobago and Guiana, Sept.-Oct. 1968; attended the Commonwealth Prime Ministers' Conference, London, Jan. 1969; State visit to: Burma, March 27-30, 1969; Japan, June-July 1969; Indonesia, July 1969; five-day official visit to Mauritius, June 21-26, 1970; awarded the Freedom of the City of Port Louis, June 4, 1970. Address: 1, Safdarjung Road, New Delhi.

GANDHI, Pravinchandra Varjivan, Fellow, Indian Inst. of Bankers, Business man; Ex-Custodian, Dena Bank; Pres., Indian National Cttee., International Chamber of Commerce. b. Aug. 25, 1922; Educ.: Elphinstone Coll., Bombay. Joined Dena Bank in 1939; Mg. Dir. Dena Bank Ltd., since 1943; member: All India Assocn. of Industries; Mg. Cttee.: Indian Banks Assocn. and Indian Merchants' Chamber; Adv. Council, Bankers' Trg. Coll.; Exec. Cttee.; FICC & I; Programme Adv. Cttee., AIR; Council member, Indian Inst. of Bankers; Dir.: Maharashtra State Fin. Corpn.; Gujarat State Fin. Corpn.; Agricultural Finance Corpn. Ltd., Lalji Naranji Memorial Indian Merchants' Chamber Bldg. Trust; Bharatiya Vidya Bhavan; Dena Bank Employees Provident Fund; Shri Pranlal Devkaran Nanjee Smarak Fund, etc.; Mg. Trustee, Swadeshi League Trust; Pres., Indian National Theatre; Pres., Rotary Club, Bombay. Address: 'Amelfi', Nepean Road, Bombay 6.

GANESAN, Sivaji, Padma Shri, 1966, a leading Cine Artiste. b. Oct. 1, 1928. Joined a Drama Troupe at the age of six; gradually estd. reputation as an actor; his

outstanding performance in the role of Shivaji earned him the title Shivaji; his title role in the tamil picture 'Para Sakthi' brought him to the limelight; Best Actor Award at the Afro-Asian Film Festival, Cairo, 1960, for the picture, 'Veera Pandiya Kattabomman'; took part in the National Defence Documentaries (Anti-Chinese) 'Thai Nadu' (Motherland), 'Singa Natham Ketkuthu' (The Lion's roar is heard) and a full length picture 'Raktha-Thilakam'; represented India in the U.S. in the Cultural Exchange Programme; winner of the Best Actor Award from Cinema Kadir from 1958-63. Address: 11, Boag Road, T. Nagar, Madras 17.

GANGULI, Bankim Chandra, B.E. (Civil), Chairman, Railway Board & Ex-Officio Principal Secy. to the Govt. of India, Min. of Rlys., since Jan. 7, 1970. b. Jan. 16, 1914; Educ.: Bengal Engg. Coll., Shibpur. Asstt. Engineer, Indian Rlys., 1937-43; Exec. Engineer, 1943-57; took a leading part in the construction of the Assam Rail Link, Engineer-in-Chief 1967-59 and Chief Engineer, 1959-62, N.E.F. Rly.; Gen. Manager, N.E.F. Rly. 1962-64; Gen. Manager, Southern Rly., 1964-67; Member (Staff), Rly. Board & Ex-Officio Secy. in the Min. of Rlys., 1967-70. Address: 20, Willingdon Crescent, New Delhi.

GARGI, Balwant, M.A. (English Literature), Sahitya Akademi Award for his book 'Rang Manch' in Punjabi (1962), Writer. b. Dec. 4, 1916; Educ.: Forman Christian Coll., Lahore. Wrote his first play 'Loha Kut' (The Blacksmith) (1944) for a village theatre, and soon became a playwright; Founder-member, Delhi Art Theatre; his play 'Kesro' was staged in Poland (1955), in Germany—Ankelem Theatre (1958), in Tajikistan (1959), in Tokyo (1962-63); 'Sohni Mahiwal', a six-act song and dance packed play was staged by Gypsy Theatre, Moscow (1958-63); taught Indian Drama at the Univ. of Washington, 1964; Seattle for two yrs., where he directed 'The Little Clay Chart' in 1965 and his own play 'The Mango Tree'—Kanak-di-Balli—in 1966. Publications: Loha Kut, Kanak-di-Balli, Kwari Teesi, Dhooni D.AGG., etc.; Sketches: Nimm de Patte; English: Theatre in India; Folk Theatre of India. Address: Professor, Indian Theatre, Punjab University, Chandigarh 14.

GARWARE, B.D., J.P., Industrialist. b. 1903. Started business, 1921; Chairman: Garware Plastics Pvt. Ltd.; Garware Nylons Pvt. Ltd.; Garware Filament Corpn. Pvt. Ltd.; Garware Motors & Engineers Pvt. Ltd.; Garware Fin. Corpn. Pvt. Ltd.; Maharashtra State Fin. Corpn., etc.; Dir.: State Bank of India, Central & Local Boards; Bajaj Electricals Ltd.; Swadeshi Mills Co. Ltd.; etc.; Pres., Bombay Local Board, State Bank of India, since Dec. 1967; Member: Maharashtra State Industries Adv. Cttee.; Adv. Cttee., Indian Airlines; Board of L.I.C.; State Board for Export Promotion; travelled widely in Europe, the U.S.A., and the Far East. Address: Chowpatty Chambers, Sandhurst Bridge, Bombay 7.

GEORGE, H.E. Mr. James, B.A. (Hons.) (Toronto), High Commissioner for Canada in India and Ambassador to Nepal. b. Sept. 14, 1918; Educ.: Upper Canada Coll., Toronto; Trinity Coll., Univ. of Toronto; Univ. of Genoble (France); Rhodes scholar for Ontario, 1940. Royal Canadian Naval Volunteer Reserve, 1940-45 (U.K., North & South Atlantic, Mediteranean), retiring as Lt. Commdr.; Appointed Dept. of External Affairs, 1945; Third Sec., Athens, 1946-48; Principal Adv. of the Canadian Permanent Delegation to the U.N., 1951-55; Minister Counsellor, Paris, 1955-57; Canadian High Commissioner, Ceylon, 1960-64; Head, European Div., DEA, Ottawa

1964-65; Minister, Paris, 1966-67. Publications: The Far Distant Ships (with J. J. Schull). Address: 4, Aurangzeb Road, New Delhi 11.

GHANDY, Sir Jehangir Jivaji, Kt., Cr., 1945, C.I.E., 1941, Padma Bhushan, 1958, Doctor of Laws (Honoris Causa) Columbia Univ., 1966, Dir., Tata Sons Pvt. Ltd., since 1959; Chairman: Indian Tube Co. Ltd.; Belpahar Refractories Ltd. b. Nov. 18, 1896; Educ.; Bombay Univ., B.S., School of Business, Columbia Univ. Carnegie Technological Instt. U.S.A. Member: Inst. of Enggrs. (India) and Iron and Steel Inst. (Great Britain); Fellow, Inst. of Fuel (Great Britain); Chairman: Exec. Council, Central Fuel Research Instt.; Eastern Regional Cttee., All India Council for Tech. Edu.; Metals Cttee., C.S.I.R.; All India Board of Tech. Studies in Management; Vice-Pres., The Indian Standards Inst.; member: Court of Governors, Adm. Staff Coll., India; Associate Knight of the Venerable Order of St. John of Jerusalem; Hon. Col. in the Territorial Army. Address: TISCO, Ltd., Jamshedpur; 10, Office Road, Jamshedpur.

GHATAGE, Dr. Vishnu Madhav, M.Sc., D.Phil., FRAES, MIE, FASC, FNI, FAAIA, MAESI, C.E.; Padma Shri, Scientist; Director, Hindustan Aeronautics Ltd. Bangalore b. Oct. 24, 1908; Educ.: Kaiser Wilhelm Instt., Gottingen, Germany. Prof. of Aeronautical Engg., Indian Instt. of Sc., 1942-47; Chief Designer HAL; indigenously designed, developed and productionised (i) HT-2—Trainer Aircraft, (ii) Pushpak—Light Trainer Aircraft (iii) Krishak and (iv) "KIRAN"; also designed and developed a Turbojet Engine (HJE-2500) for the Jet Trainer; toured Europe, U.S.A. and Australia. Publications: Model Versuche Über die gegenseitige Bewegung von Luftmassen verschiedener Temperaturan, Dissertation Gottigen, 1936; Research & Development in Aeronautical Industry and Role of High Performance Aircraft in Defence in Defence Sc. Journal; Ring Aerofoils and their possible use; Design and Manufacture of Aircraft in India; Gen. Manuger, HAL., 1967-69. Address: Bangalore 17; Residence: No. 27/1, Cunnigham Road, Bangalore 1.

GHATE, Vithal Dattatray, M.A., B.T., T.D. (Lond.), Marathi writer; member, Sahitya Akademi, New Delhi. b. Jan. 18, 1895; Educ.: Holkar Coll., Indore; Christian Coll., Indore; S.T. Coll., Bombay; London Day Trg. Coll., London. Held imp. posts in the Edu. Deptt., Bombay, 1927.45; Dy. Dir. of Edu., Bombay State, 1946-49. Publications: Dramatised History of Maharashtra in Marathi, 1925; People of many lands, Marathi, Gujarati and Hindi, 1930; Teaching of History, English (O.U. Press), 1937; Kanhi Mhatare Va Ekä Mhatari, Pen Portraits, 1936; Pandhare Kes Hiravi Mane, 1959; Madhu-Madhav (Collection of poems), 1924; Divas Ase Hote: autobiography, 1961; Yeshwantrao Holkar (a drama 1964); Baji and Daddy (1964), Manogate, personal essays, 1966; Tambde Futale (Three-act play on Shivaji) 1969, Address: "Sushama", Decan Gymkhapa, Poona 4.

GHOSE, Santidev, Scholar in music and dance; Principal, Sangit-Bhavana & Head of the Deptt. of Tagore Music and Dance, Visva Bharati Univ., Santiniketan. b. May 7, 1910; Educ.: Visvabharati and abroad. Producer (Music Composer) for the Tagore Centenary Unit under the D.G., A.I.R., 1960-61; has been associated with A.I.R., Min. of Scientific Research and Cultural Affairs, Sangeet Natak Akademi and Sahitya Akademi, New Delhi, and several cultural ors. in the country; visited Ceylon, Burma, Indonesia and U.S.S.R. to study the dance and music of those countries. Publications: Rabindra Sangit; Java O Balir Nritya Git; Rupakar Nandalal; Bharatiya

Gramin Sanskriti; Gramin Nritya O Nattya. Address: Visva Bharati, Santiniketan, W. Bengal.

GHOSE, Sookamal Kanti, B.A., Editor, Jugantar, Calcutta. b. May 5, 1912; Educ.: Calcutta Univ. Asstt. Gen. Manager, Jugantar; Development Officer, Amrita Bazar Patrika; Director, Amrita Bazar Patrika P. Ltd., Jugantar P. Ltd., Rohtas Industries Ltd., etc.; Mg. Dir., Patrika Syndicate P. Ltd.; Chairman, Trade Wings (Cal.) Pte. Ltd.; Ex-Pres., Indian Chamber of Commerce, Calcutta; is its Cttee. Member; member: A.I.N.E.C.; Board of Governors, Indian Institute of Management, Calcutta; Board of Trustees, Victoria Memorial Hall, Calcutta; International Press Institute, Zurich; Hon. Secy., Common wealth Press Union (Indian Section); is actively connected with many public service organisations, educational institutions, cultural & literary organisations; travelled extensively abroad; conferred Hon. New Orleans Citizenship. Address: 'Patrika House,' 14, Ananda Chatterjee Lane, Calcutta 3.

GHOSH, Dr. Amlendra Narayan, M.Sc. (Cal.), D.Sc. (Munich), Director General, Indian Standards Institution, since Sept. 3, 1966. b. Jan. 10, 1911 at Mhow (M.P.); Educ.: Calcutta Univ.; Munich (Germany). Dir., Metallurgical Research and Planning, Govt. of Burma, 1948-53; Dir., Govt. Test House, National Test House, Alipore, 1953-56; Dy. Dir.-General, I.S.I., 1956-66; Chairman, Wkg. Gr. for Devpt. of Stds. Instt. in ECAFE region, Bangkok, 1966; Fellow, Institution of Chemists (India) since 1954; winner: 'Standards Personality' Award, Stds. Instt., U.S.A., 1966; K. L. Moudgill Prize of I.S.I., 1967; Member: Indian Institute of Metals, since 1954; Exec. Council, Nat. Phy. Lab.; Invention Promotion Bd., etc.; Pres., Instt. of Stds. Engrs., 1969-70; travelled in Canada, Australia, Germany, France, Poland, Czechoslovakia, Greece, Switzerland, U.K., U.S.S.R., U.A.R., Thailand, Iran & Israel; Address: Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi I.

GHOSH, Atulya, Political Leader. b. Aug. 27, 1904, at Pathuriaghata in Calcutta. Joined the N.C. movement while a student; became a member, B.P.C.C., 1925; Secy., P.C.C., 1948-50; unanimously elected Pres., West Bengal P.C.C., 1950; became member, Congress Working Cttee., 1950-51; courted jail several times in the freedom movement; has been at the head of the State Congress organisation for a long time and member, Lok Sabha, 1952-67; was Chairman, Hooghly Dist. Board and Hooghly Dist. School Board for many years, Calcutta Blind School and the Bengal Deaf & Dumb Assoc. Publications: Several books on Gandhian philosophy. Address: 83B, Karbala Tank Lane, Calcutta 6.

GHOSH, Principal Devaprasad, M.A., B.L., Political Leader. b. March 15, 1894; Educ.: Mitra Instt., Calcutta; Deoghar H. E. School; Braja Mohan Instt., Barisal; City Coll., Presidency Coll., and Ripon Law Coll., Calcutta: Fellow, Calcutta Univ. upto 1957. Advocate, Calcutta High Court; linguist, knows Bengali, Hindi, Sanskrit, English. German, French and Italian; member: Congress, 1915–22; Nationalist Party, 1923–32; Hindu Mahasabha, 1933–51; Jansangh since its inception 1951; elected to the Rajya Sabha on Jan Sangh ticket, 1952; Pres., West Bengal Jan Sangh, 1955–67; Vice-Pres., Bharatiya Jan Sangh, 1955, 1960–63 and 1965; Pres., Bharatiya Jan Sangh, 1955–59 and 1963–64. Publications: Several books on Mathematics, literary and political subjects, e.g. Shifting Scenes; Hindu Kon Pathe (Whither Hindus?); Tarunima Satera Vatsar Pare Bangla Bhasha

O Banan (Bengali language and spelling — incl. his famous exchange of letters with Poet Tagore); Trairashik. Address: 59-B, Upper Circular Road, Calcutta 9.

GHOSH, Parimal, M.A., Minister of State for Health, Family Planning and Works, Housing & Urban Development, Govt. of India, since June 27, 1970. b. Mar. 15, 1917; Educ.: St. Paul's Coll., Calcutta; Univ. of Calcutta. Dir.: Himalay Paper & Board Mills P. Ltd., Himalay Paper (Machinery) Ltd., Printing & Processing Industries Ltd., etc., till 1967; elected member, Lok Sabha, 1967 General Elections; Min. of State for Railways, 1967-69. Address: 20, Seven Tanks Lane, Calcutta 30; New Delhi.

GHOSH, Surendra Nath, M.A., LL.B., Padma Shree (1969), Journalist; Editor, The Pioneer, Lucknow, since 1946. b. May 20, 1904; Educ.: Allahabad Univ. Started as a reporter; later became News Editor and subsequently Chief Asstt. Editor of The Pioneer; Member: Stg. Cttee. of the All-India Newspaper Editors' Cfce.; Leg. Council, U.P. Address: Lucknow.

GHOSH, Tushar Kanti, Padma Bhusan (1964), Editor and Mg. Dir., Amrita Bazar Patrika, Calcutta; Mg. Dir., Jugantar. b. Oct. 4, 1899; Educ.: Calcutta Univ., Bangabasi & Vidyasagar Coll. Started as sub-editor, 1920; founded: Jugantar (Calcutta), Bengali daily; Allahabad Patrika, English daily and Amrita, a Bengali Weekly at Calcutta. Pres.: A.I.N.E.C., 1946-47; I.E.N.S., 1948-49; Ex-Chairman, P.T.I.; U.N.I.; Chairman, A.B.C.; Trustee, Press Instt. of India; Vice-Pres. and member, Exec. Cttee., Intin'l. Press Instt.; Chairman, Indian Sect., Commonwealth Press Union; attended International Press Cfees. in many countries and travelled extensively all over the world. Address: Editor, Amrita Bazar Patrika, Calcutta; Chief Editor, Northern India Patrika, Allahabad.

GHURBURRUN, H.E. Mr. Rabindrah, High Commissioner for Mauritius to India. b. Sept. 27, 1929; Educ.: New Eton Coll., Rose Hill, Mauritius, Keble Col., Oxford (1956-59); was called to the bar at the Middle Temple, 1959. Has been Pres. of the following associations in Mauritius: Hindu Education Authority, since 1960; Sugar Cane Planters' Assoc., 1962-63; National Congress of Young Socialists since 1962; Arva Sabha, Mauritius, 1962-65. Address: High Commission of Mauritius, New Delhi.

GIRI, V. V., Barrister-at-Law, President of India since Aug. 24, 1969. b. Aug. 10, 1894, in Berhampore; Educ.: National Univ., Ireland. Trade Union Leader; was General Seey. and Pres. of the All-India Railwaymen's Federation; twice Pres., A.I.T.U.C.; Indian Workers' delegate to the Intn'l Labour Cfee., Geneva, 1927; Workers' Rep. at the Second R.T.C., London, 1931; Member, Central Leg. Assembly, 1934–37; Minister for Labour, Industries and Co-op., Madras, 1937–39; 1946–47; Indian High Commr. in Ceylon, 1947–51; Union Min. for Labour, May 1952–Sept. 1954; M.P., Lok Sabha, 1952–57; Elected Pres., Indian Cfee. of Social Work, 1958; Governor of U.P., 1957–60; Founder Pres., Indian Soc. of Labour Economics; Governor of Kerala, 1960–65; Governor of Mysore, 1965–67; Vice-President of India, May 13, 1967 to May 3, 1969; Acting President of India, May-July 1969; State visit to Switzerland, Finland & Poland, June 8-20, 1970. Publications: Industrial Relations: Labour Problems in Indian Industry. Address: Rashtrapati Bhavan, New Delhi 4.

GOENKA, Rai Bahadur Sir Badridas, Kt., C.I.E., B.A., Industrialist. b. July 30, 1883 at Calcutta; Educ.: Graduated from the Presidency Coll., Calcutta, 1905; Director: R.B.I. (Central Board), 1934-41; Imperial Bank of India, 1941-55; State Bank of India, 1955-57; Pres.: F.I.C.C.I., 1945-46; Marwari Assoc., 1928-30; Indian Chamber of Commerce, 1941; Trustee: Calcutta Improvement Trust, 1928-40; Victoria Memorial Hall, Calcutta, 1939-68; M.L.C., Bengal, 1923-35; Sheriff of Calcutta, 1932-33; made Rai Bahadur, 1925, C.I.E., 1928 & Knight Bachelor, 1934. Address: "Goenka Niwas," 19, Belvedere Road, Alipore, Calcutta 27.

GOENKA, Keshav Prasad, Padma Bhushan (1969), Industrialist. b. 1912. Sheriff of Calcutta (1950-51); Pres., F.I.C.C.I. (1964-65); Cttee. of the All-India Org. of Industrial Employers; Indian National Cttee. of the Intn'l. Chamber of Commerce; Export Promotion Adv. Council, Govt. of India; Cttee. of the Indian Chamber of Commerce (1948-49), (1956-57); ex-Commr. for the Port of Calcutta; Chairman: Duncan Bros. & Co., Ltd.; Balmer Lawrie & Co. Ltd.; Anglo India Jute Mills Co., Ltd.; Phillips Carbon Black Ltd.; Asian Cables Corpn. Ltd.; Woolcombers of India Ltd.; Dir.: Reserve Bank of India (1948-49) etc.; Member, Senate, Calcutta Univ. Address: 31, Netaji Subhas Road, Calcutta 1; Residence: "Goenka Niwas," 19, Belvedere Road, Calcutta.

GOMBU, Nawang, Padma Shri (1964), Padma Bhushan 1966, Olympic Gold Medal and Indian Mountaineering Foundation Gold Medal, 1967, Mountaineer; Dy. Dir. of Field Training, Himalayan Mountaineering Instt., Darjeeling. b. 1934, in Solokhumbu village. Worked as an high altitude Sherpa in 1953 British Expedition; climbed Sakan peak, Koktang, Mont Blanc, 1967, Ratheng; reached the top of the Everest in the first summit party of the successful Everest expedition, 1963; was member of the successful Indian Expedition to Nanda Devi and climbed the highest peak in India, 1964; was member of the successful Indian Expedition in 1965 and reached the top in the first summit party; the only man who climbed Everest twice; won many medals (foreign & Indian). Address: Himalayan Mountaineering Institute, Darjeeling.

GOPAL, Dr. Sarvepalli, M.A., B.L. (Madras), M.A. (Oxon.), D. Phil. (Oxon.), D. Litt. (Oxon.), Reader in South Asian History, Oxford Univ. and Fellow of St. Antony's Coll.; Hon. Historical Adv., Ext. Affairs Min.; Hon. General Editor, Selected Works of Jawaharlal Nehru. b. April 23, 1923; Educ.: Madras Univ.; Oxford Univ. Lecturer and Reader in History, Andhra Univ., Waltair (1948-52); Asstt. Dir., National Archives of India (1952-54); Dir., Historical Dvn., Ext. Affairs Min., 1954-66. Publications: The Permanent Settlement in Bengal and its Results (London, 1949); The Viceroyalty of Lord Ripon (Oxford, 1953); The Viceroyalty of Lord Irwin (Oxford, 1957); British Policy in India, 1858-1905 (Cambridge, 1965); Modern India (London 1967); and articles in History, History Today and the Encyclopaedia Britannica. Address: 30, Edward Elliot Road, Mylapore, Madras 4.

GOPALAN, A.K., M.P., C.P.I. (M) Leader. b. Oct. 1, 1904; Educ.: Tellicherry, Malabar. Associated with the Ind. Nat. Cong. 1927-34 and the Cong. Socialist Party 1934-36; member A.I.C.C. for six years; active worker in Trade Union and Kisan movements in Kerala; Captain, Volunteers, Temple Entry Satyagraha, Guruvayoor, Kerala; march on foot from Kasargod to Trivandrum at the head of the peasant jatha to press the

implementation of Kerala Agrarian Relations Bill; M.P. Lok Sabha, since 1952; Press., All India Kisan Sabha, since 1956; Member, Polit Bureau CPI (M); Leader of the opposition in the first and third Parliament; courted jail 16 times for 14 years and 3 months; toured U.S.S.R. and other Socialist countries. Publications: Kerala, Post and Present; Autobiography; I saw a new world; diary about visit to the Soviet Union. Address: 4, Ashoka Road, New Delhi-I.

GOPALASWAMY, Kurma Venu, B.A. Madras, M.A. (Oxon.), Bar-at-Law, Telugu and English writer. b. Dec. 19, 1903; Educ.: C.M.S. High School, Ellore; Christian Coll., Madras; Balliol Coll., Oxford; Inner Temple, London; Advocate, High Court of A.P., Hyderabad; Pres.: The Telugu Little Theatre, Vijayawada member: Indian Sahitya Akademy, 1954-56; Andhra Pradesh Sangeet Natak Akademi; A P. Sahitya Akademi; Leader, Govt. of India Delegation of Univ. Administrators to U.S.A. and U.K., 1958. Publications: Limitations of Diarchy as a First Step Towards Representative Government; Editor, Best One Act Plays, in Telugu; Short History of Telugu Literature. Co-author of Telugu Stories and Plays. Address: 16/2/146-A/1, New Malakpet, Hyderabad 36.

GOPAL-AYENGAR, Anekal Ramaswamiengar, M.Sc. (Mysore), M.A. (Toronto), Ph.D. (Toronto), D.Sc. (Hony.) Mysore, Padma Shri (1967), Director, Bio-Medical Group, Bhabha Atomic Research Centre, Trombay, since 1962. b. Jan. 1, 1909; Educ.: Univs. of Mysore & Toronto. Toronto Univ., Vincent Massey Fellow, 1938-39; Elizabeth Ann Wintercorbyn award, 1941. J. H. Bhabha Prizeman, 1948; Senior Intn'l. Research Fellow, Lady Tata Trust, Chester Beatty Research Inst., London & Inst. for Cell Research Karolinska Inst., Stockholm, 1951-53; served AEET in several capacities; Associated with Intn'l. Soc. for Cell Biology, N.Y. Acad. of Sci., American Assocn. for Cancer Research, Fellow, Indian Academy of Scs., Fellow, National Inst. of Scs.; Chairman, U.N. Scientific Cttee. on Atomic Radiation since 1956; WHO Expert, Radiation Cttee., 1958-68; Member of Council: Intn'l. Union for Pure & Applied Biophysics, 1961-69; Rep. for S.E. Asia on Genetics Sect. of the Intn'l. Union of Biological Sci., 1958-69; Intn'l. Cell Research Org., 1963-69; Pres., International Commn. on Radiation Biophysics, IUPAB; Editorial Board: Mutation Research; Radiation Botany; Research interests: gene duplication & chromosome synthesis, properties of malignant systems, human chromosomes, biological investigations in high radiation areas, etc. Publications in cytology, cytochemistry, cancer research, radiation biology. Address: Framroz Court, Marine Drive, Bombay-1.

GORAY, Narayan Ganesh, B.A., LL.B., Chairman, Praja Socialist Party. b. June 15, 1907; Educ.: Fergusson Coll., Poona. Social worker; joined Congress and Satyagraha campaign, 1930; was member: National Exec. of the Congress Socialist Party, 1934; A.I.C.C.; Jt. Secy., Socialist Party, 1948; General Secy., P.S.P., 1953-54; elected to the Court of the Univ. of Poona from the Trade Unions Constituency, 1949-1962; led the first batch of Satyagrahis in Goa, May 1955; was sentenced to 10 years' imprisonment by the Portuguese Govt.; released, Feb. 1957; Critic, essayist, story writer and translator; often imprisoned during India's freedom movement; M.P. from Poona (1957-62); Gen. Secy., P.S.P., 1963; Mayor of Poona, 1967-68. Publications: History of the United States of America; Short Stories, Essays, Translations, etc., in Marathi. Address: 1813, Sadashiv Peth, Poona 2.

GOSWAMI, Justice Parbati Kumar, B.A. (Hons.), B.L. (Cal.), Chief Justice, Assam and Nagaland High Court, since Jan. 31, 1970. b. Jan. 1, 1913; Educ.: Sanskrit Tol and English School, Sibsagar; Cotton Coll. and Earle Law Coll., Gauhati. Started practice of law at Dibrugarh, 1938; enrolled Advocate, Calcutta High Court, 1943; Govt. Pleader and Public Prosecutor, 1947-49; enrolled Senior Advocate, Supreme Court, Sept. 1953; member: State Law Commission, 1958-67; State Bar Council and its Disciplinary Cttee., 1962-67; appointed Judge, Assam High Court, May 1967; Founder Seey., 1956-58 and Pres., 1958-65, All Assam Lawn Tennis Assoc.; Vice-Pres., All India Lawn Tennis Assoc. Address: Gauhati (Assam).

GOSWAMI, Trailokya Nath, M.A., B.L., Sahitya Akademi Award 1967, Writer. b. March 3, 1906; Educ.: Nalbari & Gauhati (Assam); Calcutta Univ., 1932; Earle Law Coll. Joined Nalbari Coll. as founder Principal, 1945; Pres.: Assam Coll. Teachers' Assoc., 1954-56; Assam Sahitya Sabha, 1960-63; Kamrup Sanskrit Sanjibani Sabha. Publications: Aruna: Marichika; Silpir Janma (collection of short Stories); Jia Manuh (a satiric novel); Sahitya Alochana, Adhunik Gulpa Sahitya, a critical study of modern story literature; Samudra-Manthan (critical essays). Address: Retd. Principal, Nalbari College, Nalbari (Assam).

GOVINDACHARI, Dr. Tuticorin Raghavachari, M.Sc., Ph.D., F.N.I., F.A.Sc., Shanti Swarup Bhatnagar Award for Chemical Sciences (1960), Scientist; member, International Union of Pure and Applied Chemistry, Dir., CIBA Research Centre, Bombay, since Jan. 1963. b. July 30, 1915; Educ.: Presidency Coll., Madras; Univ. of Illinois, U.S.A.; Addl. Prof. of Chemistry, 1951; Chief Prof. of Chemistry, 1952; Principal, Presidency Coll., Madras, 1961, 1962. Publications: Over 200 publications in the field of alkaloids, terpenoids and other natural products and also in the synthesis of heterocyclic compounds. Address: CIBA Research Centre, Goregaon East. Bombay 62.

GOVINDDAS, Doctor, Sahitya Vachaspati, LL.D., Padma Bhushan 1961, M.P., Lok Sabha, since 1952. b. Vijay Dashmi Day, 1896; Educ.: Privately upto M.A. Entered politics, 1919; elected to: the Central Assembly, 1923, 1934 & 1946, Council of State, 1925; Constituent Assembly, 1947; member, A.I.C.C., since 1921; Pres.: Mahakoshal P.C.C. for 20 years; All-India Hindi Sahitya Sammelan 1948; Leader, Delegation to Commonwealth Parliamentary Conference, New Zealand, 1950; member, Cong. Working Cttee., 1950–51 & 1958; Pres., M.P.C.C. of reorganized M.P., 1957; appointed temporary Speaker, Lok Sabha, 1957, 1962 and 1967; Doctor of Laws, Jabalpur Univ., 1960. Publications: 109 plays in Hindi, one novel Indumati and 4 travel books and Autobiography in three volumes. Address: 33, Ferozshah Road, New Delhi 1; Raja Gokuldas Palace, Jabalpur (M.P.).

GOWDA, D. Javare, M.A., Soviet Land Honour (1967), Vice-Chancellor, Mysore Univ., since Nov. 1969. b. July 6, 1918; Educ.: Mysore. Lecturer in Kannada, 1946-55; Asstt. Prof. of Kannada & Secy. Univ. Publications, 1955-57; Controller of Examinations, Mysore Univ., 1957-60; Principal, Sahyadri Coll., Shimoga, 1960-62; Prof. of Kafnada, Mysore Univ., 1962-65; Dean, Faculty of Arts, Mysore Univ., 1965-66; Dir., Institute of Kannada Studies, Univ. of Mysore, 1966-69. Publications: 35 books in Kannada; edited 15 publications. Address: Vice-Chancellor's Residence, Mysore 5.

GRACIAS, His Eminence Valerian Cardinal, D.D., M. Agg., Padma Vibhushan (1966), Archbishop of Bombay since Dec. 1, 1950. b. Oct. 23, 1900; Educ. : St. Patrick's High School, Karachi; St. Joseph's Seminary, Mangalore; The Papal Seminary, Kandy, Ceylon and The Gregorian Univ., Rome. Secy. to the Archbishop (1929-36); Chancellor of the Archdiocese, 1929; Editor, of The Messenger of the Sacred Heart (1935); Co-Editor, The Examiner 1938; Rector of the Pro-Cathedral, Dec. 1941; Titular Bishop of Tannis and Auxiliary to the Archbishop of Bombay, April 11, 1946; created Cardinal, Jan. 12, 1953; Consultor to the Sacred Congregation for the Oriental Churches, The Sacred Congregation of the Sacraments and the Sacred Congregation for the Propagation of the Faith and member of the Vatican Secretariat for non-Christians: Pres. Catholic Bishops' Conference of India. Publications: Features of Christian Life; Heaven and Home; The Vatican and International Policy; The Decline of Public Morals; The Chief Duties of Christians as Citizens. Address: Archbishop's House, Bombay 1.

GROVER, Mr. Justice Amar Nath, M.A., LL.B. (Cantab.), Barrister-at-Law, Judge, Supreme Court of India since Feb. 12, 1968, b. Feb. 15, 1912; Educ.: Govt. Coll., Lahore; Christ's Coll., Cambridge; Prizeman and Hony. Scholar, Christ Coll., Cambridge; called to the Bar by the Middle Temple, 1936. Practised as an Advocate at Lahore, Simla and Chandigarh 1936-57; Member, Bar Council 1954-57; Judge, Punjab High Court 1957-Feb. 1968. Address: 6, Motilal Nehru Place, New Delhi.

GUHA, Arun Chandra, B.A. (Calcutta), Journalist, Publisher, Author. b. May 1892; Educ.: B. M. School and Coll., Barisal (East Bengal). Joined the 'Yugantar Party'—the revolutionary party; was in jail for over 23 years under Regulation III of 1818 as a State prisoner at several places; Gen. Secy., Bengal P.C.C., 1940-41; member: A.I.C.C. since 1938; Constituent Assembly, 1946; Provisional Parliament; elected M.P., 1952, 1957 & 1962; Min. of State for Finance, 1954-57; Chairman, Estimates Cttee. and member, P.A.C. of the Parliament; Min. for Revenue and Defence Expenditure, Govt. of India (upto April 1957); Editor, Mandira, Bengali literary monthly. Publications: Short stories, novels and books on History, Politics and Cultural and Juvenile topics. Address: 32, Acharya Prafulla Chandra Road, Calcutta-9.

GUJRAL, Inder Kumar, M.A., B.Com., Minister of State for Information & Broadcasting and Deptt. of Communications, Govt. of India, since Feb. 14, 1969. b. Dec. 4, 1919, at Jhelum; Educ.: Forman Christian Coll. and Hailey Coll. of Commerce, Lahore (W. Pakistan); Was Vice-Pres., New Delhi Municipal Cttee. for five years; member, All India Central Citizens' Council; is Secy., Resources Sub-Cttee. of the Council; has travelled widely in Europe, Asia, Africa and Australia; represented the Indian Parliament at the Inter-Parliamentary Union Conference in Canberra; is the Founder-Pres., Delhi Arts Theatre; Vice-Pres., Lok Kalyan Samiti; is a Rotarian; Pres., Rotary Club, Co-chairman, Asian Regional Conference of Rotary International, 1958, and Member, A.I.C.C.; Min. of State for Communications and Parliamentary Affairs, 1967-68. Address: 9, Motilal Nehru Marg, New Delhi 11.

GUJRAL, Satish, Govt. Diploma in Art, Diploma in Advance Painting, Mexico, Painter. b. Dec. 24, 1925; Educ.: The Mayo School of Arts, Lahore; J. J. School of Arts, Bombay; Palacio Nacinol de Bellas Artes, Mexico City, and at various art workshops at New York, Paris and London. Was Art Executive, Punjab State Govt., and Vice-Principal, Govt. School of Arts, Simla; studied

and travelled extensively in central and north America and in Western Europe; held one-man-shows in Delhi, Bombay, Mexico City, New York, London, Amsterdam, Montreal; won Academy Awards, 1956, 1957. Publications: Articles on art and culture in Indian and Mexican journals. Address: CII, 41, Tilak Marg, New Delhi.

GUPTA, Bhupesh, B.A. (Calcutta), LL.B. (Lond.), Barrister-at-Law, M.P. (Rajya Sabha); Member, National Council and Central Secretariat of the C.P.I.; Editor, New Age, since Jan. 1966. b. Oct. 1914; Educ.: Calcutta and London Univs.; Middle Temple. In detention without trial in Berhampore Detention Camp, 1933-36. Has been a whole time political worker. Publications: A critique of the Second Five Year Plan and a number of political pamphlets. Address: 20, Netaji Subhas Chandra Bose Road, Calcutta 40; 5, Feroze Shah Road, New Delhi.

GUPTA, Chandra Bhanu, M.A., LL.B., Politician; Ex-Chief Minister, Uttar Pradesh. b. July 14, 1902; Educ.: Lucknow Univ. Practised Law, 1925; member: U.P.C.C. and A.I.C.C., since 1926; jailed in freedom movement in several times; elected to the court and the council of Lucknow Univ., 1927, its Treasurer, 1947; Pres., D.C.C., Lucknow, 1929-44; member, Exec. Council, Lucknow Univ., 1929-59; and Treasurer, member, A.I.C.C., 1926-59; Treasurer, U.P., P.C.C., 1946-58 (Vice-Pres., 1958); M.L.A., U.P., 1937-62; Parly. Secy. to Chief Min., U.P. Govt., 1946; Min. for Food and Civil Supplies, Public Health, Industries & Plng., 1948-57; elected Pres., P.C.C. in Oct. 1960; Chief Min., U.P., 1960-63; resigned under the "Kamaraj Plan", Aug. 1963; Chief Minister, U.P., March 1967; Leader of the Opposition in U.P. Leg. Assembly, 1967-69; M.L.A., U.P., in mid-term election, Feb. 1969. Address: Seva Kutir, Pandariba, Lucknow.

GUPTA, Suresh Chandra, B.Sc. (Agra), A.H.B. T.I., F.I.I.S.T., F.I.C. (India), M.I.I. Chem. E., Dir., National Sugar Inst., Kanpur, since 1964. b. July 7, 1913; Educ.: D.A.V. Coll., Dehra Dun, Meerut Coll., Meerut; H.B.T.I. & I.I.S.T., Kanpur. Dir., National Federation of Co-op. Sugar Factories; member: Devpt. Council for Sugar Industry; I.S.S.C.T.; Sugar Enq. Commn.; Tech. member, Govt. delegation to: I.S.S.C.T., 1962; I.C.U.M.S.A., Mauritius, 1966; Ex-Officio member of 18 cttees. of Govt. and semi-Govt. Departments; Vice-Pres., Sugar Technologists' Assoc. of India; Invented the Defeco Melt Crystallization process for manufacture of white sugar without the use of sulphur and was awarded Rs. 500 prize by Inventions Prom. Board, 1967; widely travelled. Publications: Published a number of Papers: Design and Working of Process Equipments, Fuel and Steam Economy, etc. Address: National Sugar Institute, Kalianpur, Kanpur.

GUTIERREZ-MACIAS, H.E. Mr. Carlos, Ambassador Extraordinary and Plenipotentiary of Mexico, since March 1, 1969. b. March 12, 1910; Ednc.: Mexico. Served in: several Mexican Consulates in the U.S.A.; Mexican Embassies in Cuba, Ecuador, Japan, Norway, Finland and the Philippines; the Mexican Ministry of Foreign Relations; Ambassador of Mexico in Sweden, 1963-69. Address: Office: Embassy of Mexico, 136, Golf Links, New Delhi-3; Residence: 13, Prithviraj Road, New Delhi-11.

GWALIOR: H.H. Rajmata Maharani Vijaya Raje Scindia of: M.L.A., Social worker. b. Oct. 12, 1919; Educ.: Privately at home and at Besant Coll., Banaras; awarded D. Litt., Vikram Univ.; Vidya Vachaspati, Gukul, Jwalapur. Devoted to social and child welfare work and female educ.; Founder Pres., Shishu Mandir, a Montessori School for small children and Scindia Kanya Vidyalaya; Pres., Board of Governors: Scindia Public School, Gwalior; Madhao Engg. Coll., Gwalior; Samrat Ashok Technological Instt., Vidisha; Chancellor, Saugor Univ.; member: Board of Governors of Laxmibai Coll. of Physical Educ.; Syndicate of Vikram Univ.; Syndicate of Jiwaji Univ., Gwalior; India International Centre; Pres., M.P. Branch of Social and Moral Hygiene; was twice elected Vice-Pres., A.I.W.C. and has been Pres., Gwalior branch; M.P., Lok Sabha 1957 and 1962; M.L.A. from Karera Constituency 1967, Leader, Samyukta Vidhayak Dal, M.P. State Assembly. Address: Jai Vilas, Gwalior; Samudra Mahal, Worli, Bombay 18.

HAKSAR, Parmeshwar Narain, M.Sc., Barrister-at-Law (Lincoln's Inn), I.F.S., Secy. to the Prime Minister, since May 1967. b. Sept. 4, 1913; Educ.: Allahabad Univ.; London School of Economics and Univ. Coll., London. Practised Law at Allahabad High Court; Adviser, Indian delegation to the Security Council on Kashmir; Secy., High Commn. of India (Ext. Dept.), London, May 1948; Adv.; Counsellor, Indian High Commn., London, Aug. 1952; Adv. and later Alternate Chairman, Neutral Nations' Repatriation Commn., Korea, 1953-54; Dir., Ext. Publicity Dvn., Min. of Ext. Affairs, 1955-58; Jt. Secy., Min. of Ext. Affairs, 1959-60; High Commr. in Nigeria, Sept. 1960; Amb. in Republics of Dahomey and Togo, 1962-64; Amb. to Austria, 1964-65; Dy. High Commr. and Ag. High Commr. in U.K. 1965-67: Member: Atomic Energy Commn. Address: 9, Race Course Road, New Delhi.

HALDULKAR, Ramakant Kesheorao, Gen. Secy., All India Forward Bloc, since 1955. b. Jan. 4, 1916, at Bijakwara Village, M.P.; Educ.: Nagpur; Hindi Bhashi Sangh High School; City Coll., Nagpur. Imprisoned in the Sitabaldi Bomb Case; secured various awards for mine workers; jailed in the freedom movement; joined the All India Forward Bloc, 1939; is Pres.: M.P. Mine Workers' Union, Bombay Pradesh Mine Workers' Union, Bellapur, Maharashtra; was Vice-Pres., A.I.T.U.C.; elected Pres., A.I. Mine Workers' Federation, 1959; Pres., and later Secy., M.P. State Cttee. of the Indian Federation of Independent Trade Unions; elected Secy., Dt. Freedom Fighters' Assn. since 15th July 1968; Editor and Publisher, Inquilab (Weekly), Chhindwara, since Nov. 1958. Address: General Secy., All India Forward Bloc, Subhash Ward No. 2, Chhindwara, Madhya Pradesh.

HAMIED, Prof. K. A., B.Sc., M.A., Ph.D. (Berlin), F.C.S., F.S.C.I., F.R.I.C. (Lond.); Member, American Chemical Soc., F.I.A. Sc. (Ind.), J.P.; Chairman, Exec. Council, Central Drug Research Institute; Fellew: Bombay Univ.; Court of Aligarh Univ.; Exec. Council, Hon. Prof., Aligarh Univ. b. Oct. 31, 1898; Educ.: Allahabad and Berlin Universities. Took part in freedom movement; started Cipla Ltd., 1935; is its Chairman and Tech. Advisor; had been a Congress member, Bombay (later Maharashtra) Leg. Council for over 25 years; Director of several firms in Bombay; Pres., Indian Chemical Mfrs. Assoc., 1945–48 and 1949–50; Leader, Indian Chemical Delegation to U.K. and U.S.A., 1945–46; Sheriff of Bombay, 1952–53; Member: Governing Body; C.S.I.R.; Devpt. Council for Drugs and Pharmels.; Pharmaceuticals & Drugs Research Cttee., Govt. of India; Maharashtra State Industrial Research Cttee. Address: 289, Bellasis Road, Byculla, Bombay 8.

HANUMANTHAIYA, Kengal, B.A., LL.B., Minister for Law & Social Welfare, Govt. of India, since June 27, 1970; ex-Chairman, Admin. Reforms Commn., Govt. of India; member, Exec. Cttee., Cong. Party in Parliament. b. 1908; Educ.: Maharaja's Coll., Mysore; Law Coll., Poona. Pres., Bangalore D.C.C. for 10 years; imprisoned 7 times during freedom struggle; started "Palace Satyagraha" movement in 1948 to achieve democratic Govt. in Mysore State; Pres., Bangalore City Muncipal Council, 1942; Leader, Cong. Party, Mysore Rep. Assembly 1945-49; Pres., Mysore P.C.C., 1950-52; delegate, Inter Parly. Cfce.s: Stockholm, 1948; Dublin, 1950; Brazil, 1962; Chief Min., Mysore, 1952-56; nationalised Kolar Gold Mines; integrated Karnataka; M.L.A., Mysore, 1952 & 56; elected to Lok Sabha, 1962 & 1967; Chairman, the Punjab Adm.ive Reforms Commn., 1964-65; Leader, Indian Delegation to Commonwealth Parliamentary Conference, Ottawa, 1966; Leader, Parliamentary delegation to Bhutan; Dy. Leader, Cong. Party in Lok Sabha, 1967-68. Address: "Kengal Krupa", Bangalore 6; New Delhi.

HAZARI, Dr. Rabindra Kishen, M.A., Ph.D., Deputy Governor, Reserve Bank of India, since 1969. b. Oct. 21, 1932; Educ.: Govt. Coll., Lahore; St. Xavier's Coll., Bombay & School of Economics, Bombay. Taught Economics at St. Xavier's Coll., Bombay, 1951-64; Prof. of Industrial Economics, Univ. of Bombay, 1964-67; Editor, Economic and Political Weekly, Bombay, 1967-69. Publications: Economics of Estate Farming, 1954; Structure of the Corporate Private Sector-Concentration, Ownership and Control, 1966; Industrial Planning and Licensing Policy, 1967. Address: Central Office, Reserve Bank of India, Bombay 1.

HAZARI, Captain Durgdas Gehisingh, Master Mariner (F.G.), Member of Inst. of Marine Technologists, Member of Company of Master Mariners, J.P. (Greater Bombay), Captain Supdt., Trg. Ship "Dufferin" since Sept. 1962. b. Dec. 3, 1916; Educ.: P. N. Anglo-Sanskrit High School, Patna Merchant Navy, 1933–43; Exec. Officer, Trg. Ship "Dufferin", 1943–50; Chief Officer, Trg. Ship "Dufferin", 1950–54; Captain Supdt., Trg. Ship "Nau Lakshi", Navlakshi, Saurashtra, 1954–59; Captain Supdt., Trg. Ship "Bhadra", Calcutta, 1959–62. Address: Training Ship "Dufferin", Off Mazagaon Pier, Bombay-10.

HEBBAR, Kattingeri Krishna, Padma Shri 1961, Artist. b. June 15, 1912; Educ.: Gen. Christian High School, Udipi, S. Kanara; Sir J. J. School of Art, Bombay and Academy Julian, Paris. Held one-man shows in India, London, Paris, Switzerland, New York and Australia; travelled widely in Europe, U.S.S.R., Poland, U.S.A., Mexico, Far Eastern Countries, Australia & Japan; member, Lalit Kala Akademi, New Delhi; winner of several imp. top awards in exhibitions; paintings in several museums and pvt. collections in India and abroad. Publications: Hobbar Drawings and Paintings (Nalanda Publications, Bombay); Hebbar's Lalit Kala Akadami, New Delhi, 1960; Drawings 'The Singing Line' (Peacock Publications, Bombay). Address: Kala Nagar, Bandra East, Bombay 51.

HECKSCHER, H.E. Dr. Gunnar E., Ph.D. (Political Science), Ambassador of Sweden to India. b. July 8, 1909; Educ.: took Ph.D. (Political Science), 1934. Served as a Prof. in Political Sc. at the Univ.s of Uppsala and Stockholm; member: Swedish Parliament, 1956-65; leader of the Conservative Party in Sweden 1961-65; served in the U. N. as an expert. Publications: Many

treatises and books mainly on political science. Address: Swedish Embassy, Nyaya Marg, Chanakyapuri, New Delhi 21.

HEGDE, Doddamane Ramakrishna, M.A., LL.B., Minister for Fin., Planning and Youth Welfare, Mysore State, since May 29, 1968. b. Aug. 29, 1927 in Siddapur Taluk, N. Kanara Dist.; Educ: Siddapur and Sirsi; Kashi Vidyapith, Banaras; Lucknow Univ. Started practice at Sirsi; Pres., North Kanara D.C.C. 1954-57; Dy. Min. for Plng. & Devpt. 1957-58; Gen. Secy., M.P.C.C. 1958-62; re-elected M.L.A., Mysore, 1962 from the Sirsi Constituency; Min. for Dev., Panchayati Raj and Co-op. 1962-65; Min. for Fin., Excise, Prohibition Industries, Mysore, 1965-68. Address: Bangalore 1.

HEGDE, Mr. Justice Kawdoor Sadananda, M.A., B.L. (Madras), Judge, Supreme Court of India, since July 1967, b. June 11, 1909; Educ: St. Aloysius, Coll., Mangalore; Presidency Coll. and Law Coll., Madras. Advocate from 1936; Public Prosecutor and Govt. Pleader, 1947-51; M.P., 1952-57; represented India in the U. N. as an alternate delegate, 1954; was Judge, High Court of Mysore; Chief Justice, High Court, Delhi, Oct., 1966-July 1967. Address: Supreme Court, New Delhi.

HIDAYATULLAH, Mr. Justice M., B.A. (Nagpur), M.A. (Cantab.), Barrister-at-Law, O.B.E. (1946), Hon. LL.D.; (Philippines Univ., 1970), (Ravishankar Univ., 1970), Chief Justice, Supreme Court of India, since Feb. 12, 1968. b. Dec. 17, 1905; Educ.: Govt. High School, Raipur; Phillip's Scholar, Morris Coll., Nagpur, Trinity Coll., Cambridge; English and Law Tripos. Lincoln's Inn, Bar-at-Law 1930. Advocate-Gen., Madhya Pradesh 1943-46; Puisne Judge, 1946; Dean, Faculty of Law, Nagpur Univ., 1949-53; Chief Justice, Nagpur High Court, 1954-56; M.P. High Court, 1956-58; Judge, Supreme Court of India, 1958-68; Pres., Indian Society of International Law; Exec. Council of International Law Assoc.; member: Exec. Cttee., World Assembly of Judges; International Institute of Space Law: Hon. Bencher: Lincoln's Inn since Sept. 1968; delivered Lajpat Memorial Lectures 1965, Feroze Gandhi Memorial Lectures 1968; assigned to deliver Tagore Law Lecture (1958); presented "Bronze Medal for gallantry" by President (1969); Plaque of Merit & Gold Medallion (Philconsa) 1970; Ag. Pres. of India Aug. 1969. Publications: Democracy in India & the Judicial Process, The South West Africa Case, Mulla's Mohammedan Law, Editor 16th Edn. Address: 5, Hastings Road, New Delhi.

HOLCK-LARSEN, Henning, M.Sc., in Chemical Engg. & Member, Institute of Danish Civil Engineers; knighted by the King of Denmark, 1962 (R. of D.), Chairman and Managing Director, Larsen & Toubro Ltd. b. July 4, 1907; Educ.: Univ. of Copenhagen, Denmark. Was civil engineer, F. L. Smidth & Co. A/S, Copenhagen; formed with Mr. S. K. Toubro, in 1938 the partnership firm of Larsen & Toubro, subsequently converted into a public limited Co.; founder and Chairman, Larsen & Toubro Ltd.; is member, Bombay Chamber of Commerce & Industry, Bombay and a leading Rotarian; is a connoisseur of art and music; awarded diploma by National Assoc. of Danish Enterprise for services to trade relations between India and Denmark. Address: Office: Larsen & Toubro Limited, L & T House, Ballard Estate, Bombay 1; Residence: D-11, Mafatlal Park, B. Desai Road, Bombay 26.

HUSAIN, Dr. Iqbal, M.A., B.L., Ph.D., Persian Scholar. b. Nov. 22, 1905; Educ.: Patna and Law Coll., Patna; Univ. Prizeman, Gold Medalist and Research

Scholar. Dean of Faculty of Arte, Patna Univ.; Principal, Patna Coll. and Prof. and Head of the Deptt. of Persian, Patna Univ., 1944-61; member: Senate, Syndicate, Academic Council and Faculties of Arts and Law, Patna Univ.; Bihar Madrasa Examination Board, 1938-44 and 1952-62. Pres. of the Board since 1966; Language expert of the Bihar Hindustani Cttee.; rep. of Patna Univ. in the Indian Council of Cultural Relations, Govt. of India, 1953-61; Dir., Khuda Bakhsh Oriental Public Library, Patna. Member: Bihar Public Service Commn., 1961-65; Governing Body of Govt. Urdu Library; Art Purchase Cttee, Govt. of India; U.G.C. Professor of Persian. Publications: Tuhfa-i-Sami; The Early Persian Poets of India, and Selected Quasidas of Urfi. Address: Exhibition Road, Patna 1.

HUSAIN, Mohammad Azim, B.A. (Punjab), B.A. (Oxon.), M.A. (Cantab.), Bar-at-Law (Lond.), I.C.S., Indian Ambassador to Switzerland and to the Holy See., since Dec. 67, b. Oct. 5, 1913; Educ.: Punjab; United Kingdom. Joined I.C.S., 1937; served in the Punjab, 1937-42 & in Govt. of India, 1942-48; Counsul Genl., San Francisco, 1952-54; Jt. Secy., Ext. Affairs Min., 1954-57; Dy. High Commssr., London, 1957-60; Amb. to U.A.R. and concurrently to Libya, 1960 and Min. to Lebanon; concurrently accredited to Yemen, May 1963; Addl. Secy. and F.S.I., Min. of Ext. Affairs, 1964-65; Secy., Min. of External Affairs, 1966-67; Leader, Tech. & Economic Delegation to Afghanistan 1966; Leader, Indian Delegation to the Eighteen Nation Disarmament Cttee. Geneva 1968-69; Leader, Ind. Delegation & Vice-Pres. of Cice. of Non-Nuclear Weapon Spl. Cice., Geneva, 1968; Member, Delegation for the 22nd, 23rd and 24th session of the U.N. General Assembly. Address: C/o Ministry of External Affairs, New Delhi.

HUSAIN, Saiyid Ehtesham, M.A. (Urdu), Gold Medalist, Urdu Critic; Prof. in Urdu, Allahabad Univ., since Nov. 1961. b. July 11, 1912. Educ.: Wesley High School, Azamgarh (U.P.); Govt. Intermediate Coll., and Allahabad Univ., Allahabad; Fellow of the Rockefeller Foundation (U.S.A.) to study 'Sociology & Literary Criticism' in U.S.A. & Europe, 1952-53; member, Sahitya Akademi, Hindustani Academy, National Book Trust; Programme Advisory Cttee. AIR, Lucknow, etc. Publications: Viraney: Tanqidi Jaeze: Ravayet Aur Baghavat; Adab Aur Samaj; Tanqid Aur Amali Tanqid; Zaug-e-Adab Aur Shaoor; Urdu Sahitya Ka Itihas; Urdu Ki Kahani; Aks aur Aaine; Afkor-o Masael; Etbar-e-Nazar; Tanqidi Nazariyat (2 vols); Translated the Japanese classic Tale of Genji by Lady Murasaki, Kalki by Dr. S. Radhakrishnan and Romain Rolland's (abridged) Ramakrishna & Vivekanand, Jan Paterson's Our Street, in Urdu. Address: Allahabad.

HYDER, H.E. Mr. Sajjad, B.A. (Punjab), High Commissioner for Pakistan in India, since June 29, 1968. b. 1920; Educ.: Indian Military Academy, Dehra Dun. Was a Commissioned Officer; saw active services in South East Asia; was selected for the I.F.S., 1947; opted for Pakistan; Third Secy. in New Delhi, 1947-48; Second Secy. in Washington, 1948; represented Pakistan on International Emergency Food Council in Washington; Secy. to the Pakistan Delegation to the Tripartite Conference in Cape Town, 1950; posted to London in 1952 and has served as Second Secy., First Secy., and Counsellor, London, 1952; Dir. in Foreign Office, Govt. of Pakistan, 1955-57; Dy. High Commissioner in New Delhi, 1957-59; London, 1959-61; Ambassador in U.A.R., 1965-68. Address: 8-B, Tilak Marg, New Delhi.

IMLONG, K. Akum, Minister for Tuensang Affairs, Supplies & Excise, Nagaland, since March 1969. b. March 1935, in Mokokchung; Educ.: Mokokchung Govt. High School, St. Paul's Coll., Calcutta; St. Stephen Coll., Delhi Univ. Member, Working Cttee., Naga People's Convention; Circle Officer, Nagaland, 1960; resigned; elected member, Interim Body by Chang Tribe of Tuensang Dist., 1960; elected member, Exec. Council, Feb. 1961; re-elected M.L.A., Nagaland 1963 & 1969. Min. for Tuensang Affairs, Information, Publicity and Tourism, 1964-66 & for Tuensang Affairs, 1966-69. Address: Kohima.

IPOTO, H.E. Mr. Martin-Fortune, Ambassador of the Democratic Republic of Congo to India. b. 1933. Entered Congolese Diplomatic Service after obtaining diploma of the Univ. Institute of Higher International Studies, Geneva; has been Congolese delegate to the U.N. General Assembly and the Security Council; has served as Counsellor at London and as a Permanent Rep. of the International Council for Tin; Ambassador for Congo to Algiers till 1970. Address: 5, Golf Links, New Delhi 3.

IREMONGER, H.E. Mr. Valentin, Ambassador of Ireland in India, since 1968. b. 1918. Entered Irish Foreign Service, 1946; First Secy., London, 1955; Counsellor, London, 1959; Ambassador to Sweden, Norway and Finland, 1964. Address: Embassy of Ireland, 13, Jor Bagh, New Delhi.

ISMAIL, H. H., J.P., B. Com., Chief Editor, The International, Bombay. b. Aug. 20, 1906, Amreli, Saurashtra; Educ.: Bombay; New York. Joined his father's business—Import, Export & Mfg.; Pres.: Indian Academy of Art & Culture; Bombay Hospitality Cttee.; Bombay Labour Bureau; India Afghanistan Friendship Soc.; Indo-Spanish Soc.; Indo-Canada Friendship Soc.; Indo-Spanish Soc.; Indo-Canada Friendship Soc.; Memon Chamber of Commerce; Memons International, etc.; Vice-Pres.: Auxiliary Forces Welfare Assoc.; Indian Council for Africa; Indian Folk Art Foundation; Indo-Arab Society, etc.; Chairman: Indo Australian Soc.; Indo-German Cultural Soc.; Maharashtra Coll. of Arts & Science; Maharashtra U.N. Assoc., etc.; Mg. Trustee, Khilafat Cttee.; Consular Agent: Republic of Ecuador; Republic of El Salvador; Consul Genl. for the Dominican Republic, since 1949; has travelled extensively all over the world. Address: 702, Prabhu Kunj, 5, Pedder Road, Bombay 26.

IYER, Sangeetha Kalanidhi Musiri Subrahmania, Karnatic Musician; ex-Principal, Central Coll. of Karnataka Music, Madras; Fellow, Sangeet Natak Akademi, 1968. b. 1899 in Musiri, Tiruchi Dist.; Educ.: Took initiation in Karnatic music from the late Vidwan Sabesa Iyer. Is an authority on Thyagaraja compositions; has a distinct style of his own, popularly known as the "Musiri style", acted the title role in the film "Tukaram"; Pres., annual Cfce. of the Madras Music Academy, 1939; President's award for the best Karnatic musician (vocal) for 1957; is a leading exponent of the Karnata Sampradaya Sangeetha in India & one of the prominent living masters of Sasthreeya Sangeetha in South India. Address: 18, Oliver Road, Mylapore, Madras.

IYER, Vankatarama C. Mudikondan, President's Award 1961, Karnatic Musician; Principal, Teachers' Coll. of Music, Madras. b. October 1897. Began career as a vocal musician; honoured by Mysore & Travancore Maharajas; was conferred the titless of Ganasagara, Gayaka Vidwat Sekhara at Masulipatam, Sangita Chandroday by Udipi Swamiji & Sangita Kalanidhi by the Madras Music Academy, 1949; was member, Board of Studies in Music and Examiner in Madras, Annamalai

and Delhi Univs. for many years; is a leading exponent of Ragam, Tanam, Pallavi & Swara singing. Publications: Maha Bharata Chudamani. Address: Principal, The Teachers' College of Music, Music Academy, Mowbray's Road, Madras 14; Mudikondan, S.O. Tanjore District.

JACKSON, Richard Owen, Chief Executive of Burmah-Shell companies in India and Chairman, Burmah-Shell Refineries Ltd., since Feb. 1, 1968. b. Sept. 26, 1925; Educ.: Southend-on-Sea High School, Essex; Queen's Coll., Cambridge. Served with R.A.F.V.R. in England & Egypt 1944-47; joined Burmah-Shell. Sept. 1949; held various positions in Burmah-Shell before joining Shell Intn'l. Petroleum Co., London in 1962 as Head of Hong Kong, China, Thailand, Viet Nam, Cambodia and Laos Divn. in the organisation of the Area Co-ordinator, Oil, Far East; Chairman and Managing Dir., Shell Ghana Ltd., 1964-66; Gen. Manager, Burmah-Shell Marketing Company, 1966-68. Address: 1-A, Altamount Road, Cumballa Hill, Bombay-26.

JADHAV, Smt. Mary Clubwala, A.T.C.L., Padma Shri (1955), Padma Bhushan (1968), M.L.C. since 1946; J.P.; Pres., Indian Council of Social Welfare, since Jan. 1, 1970; Social Worker. b. June 10, 1908; Educ.: Nazareth Convent, Ootacamund. Founder, Hon. Secy., Madras School of Social Work and other institutions; Vice-Pres.: Madras Parsi Anjuman; National Council of Women in India (1969); Chief Commr., Guides, 1957-60; Vice-Chairman: The International Alliance of Hospital Volunteers, Canada; Vice-Pres.: Tamil Nadu Red Cross Soc.; Sheriff of Madras, 1956-57; Mem.: Central Social Welfare Board and State Social Welfare Board; Exec Cttee., Intn'l Council of Social Welfare; Vice-Pres. & Life Member of the Indian Council of Child Welfare; Hon. Secy. and Founder, Juvenile Guidance Bureau; Hon. Magistrate since 1935 — Presiding Magistrate, Juvenile Court; Member, Panel on Social Welfare, Planning Commn.; Pres., Federation of Mentally Retarded. Travelled widely, Address: "Philroy", Nungambakam High Road, Nungambakam, Madras 34.

JAGANNATHAN, K. V., M.A., Vidwan, Vagheesa Kalanidi, Sentamil Selvar, Tamil Kavi Bhushanam, Tamil Perum Pulavar, Upanyasa Kesari, Saiva Bhushanam, etc., Sahitya Academi Award (1968), Tamil Essayist & short story writer; Editor Kalaimagal; Vice-Pres., All-India Tamil Writers' Assocn.; Pres., Tamil Wtiters' Co-op. Soc. b. April 11, 1906; Educ.: Kulitalai & Madras. Member: Sahitya Academi, Tamil Development Research Council, Tamil Academy & Gandhi Works Publishing Sangh; Chairman, Amudha Nilayam Ltd. Publications: Nine books of short stories in Tamil, literary essays and research, six collections of poems, altogether 160 books in Tamil. Address: Kaanta Malai, Kalyananagar, Madras 28.

JAIKISHAN, Panchal, Padma Shri (1969), Cine Music Director. b. Nov. 4, 1932; Educ.: Bansda State (Gujarat). Started career from R.K. Film's Barsat, 1948; has so far given music in over 100 films; has recorded over 900 songs; won Filmfare Award six times for best music direction, six Cinegoers Award, a certificate of merit for best compositions in Basant Bahar; presented by H.M.V. a silver shield for the valued service in the field of music by him with Shankar; a recording company of U.S.A. has made an L.P. of Shankar-Jaikishan songs taken from Barsat, Awara and Shri 420, sung by Egyptian singers; was given the best composition award for the song "Baharo Phool Barsao" from Suraj. Address: Gobind Mahal, 4th Floor, Marine Drive, Bombay.

JAIN, Ajit Prasad, M.A., LL.B., M.P. (Rajya Sabha), Ex-Governor of Kerala. b. 1902, Educ.: Lucknow Univ. Advocate; Chairman: Rural Urban Relationship Cttee.; Board of Management, U.P. Agrl. Univ., 1960-64; Leader, Plan Projects Agrl. Team; member: Constituent Assembly of India, 1946-50; A.I.C.C. continuously for many years; Union Min. for Relief and Rehab., 1950-54; Union Min. for Food and Agr., 1954-59: Pres., U.P.C.C., 1961-64; Governor of Kerala, 1965-66; Chairman, Irrigation Commn., Govt. of India, since April 1969. Publications: U.P. Agrarian Laws; Raft Ahmad Kidvai.—Memoirs of His Life and Times. Address: C-36, N. D., South Extension, Part II, New Delhi 16.

JAIN, Akshayakumar, B.A., LL.B., Padma Bhushan (1967), Editor, Navbharat Times, since 1954. b. Dec. 30, 1915; Educ.: Agra Univ.: Banaras Hindu Univ. Journalist since 1939; Pres., A.I.N.E.C., 1965-67; member: First Press Council of India; Board of Directors, Samachar Bharati and Hindustan Samachar, multilingual news agencies; Ex-Pres.: All India Digamber Jain Parishad; Hindi Patrakar Sangh; has travelled extensively in Europe, America and East European countries. Publications: About a dozen books including Yug Purush Ram and Vishwa Ke Mahapurush which won State Awards. Address Navbharat Times, 7, Bahadur Shah Zaffar Marg, New Delhi 1.

JAIN, Ashok Kumar, B.Sc. (Hons.), Industrialist; Ex-Pres., Indian Chamber of Commerce, Calcutta. b. March 5, 1934; Educ.: Calcutta Univ. Entered business at an early age; is intimately connected with several industries; has toured extensively in Europe, U.S.A. and the Far East in connection with business; Director, Sahu Jain Ltd.; controls and directs the activities of the jute, cement, paper and other industries of Sahu Jain; is Director: Punjab National Bank Ltd., Bennett, Coleman & Co. Ltd., Oriental Gas Co. Ltd.; is Chairman and Director, New Central Jute Mills Co., Ltd., Ashoka Cement Ltd., Sahu Jain Services Ltd. and Sahu Properties Ltd.; ex-Pres.: Indian Paper Mills Assoc., Bihar Chamber of Commerce; Bihar Industries Assoc.; is Exec. Cttee. Member: Federation of Indian Chambers of Commerce & Industry; All India Organisation of Industrial Employers; Indian Paper Mills Assoc.; Cement Manufacturers' Assoc.; represents Sahu Jain cement companies on the Governing Body, CACO; has a shrewd comprehension of industrial and economic problems and a close personal knowledge of the working of different industries. Address: 11, Clive Row, Calcutta 1.

JAIN, Sahu Shriyans Prasad, J.P., Industrialist; ex-M.P. (Rajya Sabha), 1952-58. b. 1908 in the Sahu family of Najibabad—(Ganesh Sadan), renowned for its traditional liberality and public service; has rendered invaluable services to the people of his town and district; takes keen interest in all matters of social reform and public enlightenment; has done pioneering work in the field of girls' education, Seva Samitis and public libraries for the welfare of his district in particular and the State in general; President, Education Committee of the District Board, Bijnor; and Vice-Chairman, Municipal Board, Najibabad, for many years; Chairman: Dhrangadhra Chemical Works Ltd.; Carona Sahu Co. Ltd.; Dir.: The Dawn Mills Co., Ltd.; Podar Mills Ltd.; Bajaj Electricals Ltd.; Bajaj Auto Ltd.; The New Swadeshi Mills of Ahmedabad Ltd.; The Amitabh Textile Mills Ltd.; Sahu Rubber Private Ltd.; The Premier Automobiles Ltd.; The Gwalior Rayon Silk Manufacturing (Wvg.) Co., Ltd.; Bombay Oxygen Corporation Ltd.; Indequip Engineering Ltd.; The Simplex Mills Co. Ltd.:

Shri Ram Mills Ltd.; Ex-President: Alkali Manufacturers Association of India, Federation of Indian Chambers of Commerce & Industry; All India Digamber Jain Parishad; Bharat Jain Mahamandal; Pres. for two years of Afro-Asian Econ. Conference and presided over the Conference held at Karachi in Dec. 1963; member: Indian Industrial Delegation to the U.S.A., the U.K. and the Continent, sponsored by F.I.C.C.I. 1957; visited Japan in Sept. 1967 as a member of Indian Delegation sponsored by F.I.C.C.I.; M.P., 1952–58; ex-member: Bombay Telephone Advisory Cttee.; Mill-Owners' Assocn.; member: Indian Merchants' Chamber, Bombay; Trustee: Bombay Hospital; Bombay Port Trust; Founder: Shriyans Prasad Charitable Trust, Bombay; Sahu Shriyans Prasad Jain Arts and Commerce College, Dhrangadhra. Address: 100, Mount Unique, Pedder Road, Bombay 26.

JAIN, Shanti Prasad, B.Sc., Industrialist. b. 1912 at Najibabad, Dt. Bijnor, U.P.; Educ.: Banaras Hindu Univ. and Agra Univ. Has 25 years close association with and knowledge of working and management of important industries like Cement, Sugar, Jute, Paper, Coal, Chemicals, Fertilisers, Vanaspati, Asbestos Cement Sheets, Cycles, Plywood, Light Railway, Newspapers and Periodicals; a keen student of Economics and Finance and deeply interested in statistical studies; strives for and believes in all-round industrial development through Indian enterprise for improvement in the people's standard of living; visited the Dutch East Indies (1936), Australia (1945) and U.S.S.R. (1954) as member, Indian Trade and Industrial Delegations; also visited the European countries, U.S.A., Canada, Japan, Norway, Sweden, etc.; Chairman and Dir.: Sahu Jain Ltd., Rohtas Industries Ltd., The Jaipur Udyog Ltd., S.K.G. Sugar Ltd., Pres.: Bihar Industries Assoc., Patna; Shri Ahimsa Prachar Samity, Calcutta; Governing Body Member, Cement Allocation and Coordinating Organisation; Ex-Pres.: Federation of Indian Chambers of Commerce and Industry, New Delhi; All-India Organisation of Industrial Employers, New Delhi; Indian Chamber of Commerce, Calcutta; Bihar Chamber of Commerce, Patna; Indian Sugar Mills Assoc., Calcutta; Indian Paper Mills Assoc., Calcutta; Rajasthan Chamber of Commerce & Industry. Jaipur ; Eastern U.P. Chamber of Commerce & Industry, Allahabad; Employers' Assocn., Calcutta; Chairman-Trustee: Gobind Ballabh Pant Bhawan Trust, Calcutta; Rajendra Chhatrabas Samity, Calcutta; Trustee: Sahu Jain Trust; Founder Trustee, Bharatiya Jnanpith (Academy), Varanasi. Address: 11, Clive Row, Calcutta; 6, Sardar Patel Marg, New Delhi.

JAIN, Surendra Kumar, B.A. (Hons.), M.A. (Econ.), LL.M., Regional Coordinator for Asia, International Labour Office, Bangkok. b. Dec. 22, 1922; Educ. : Govt. Coll., Lahore ; Univ. of Lucknow. Member, Cooperative Section, I.L.O. (1946-49); Secy., I.L.O., Indian Branch (1949-51); Member: I.L.O. Mission to Far East (1948-49); Technical Assistance Division (1951-56); Chief of Director General's Cabinet (1957-58); Dir., I.L.O., Middle East Office, Istanbul (1959-62); numerous missions to countries of Asia and the Near and Middle East to plan, negotiate and inspect I.L.O. technical assistance projects; Secy. to a number of I.L.O. Cttees.; represented I.L.O. at various national and international conferences. Publications: Contributions to the International Labour Review and other publications and periodicals. Address: Bangkok Bank Building, 300, Silom Road, Bangkok (Thailand); or I.L.O., New Delhi or Geneva.

JAMBUNATHAN, M. R., Tamil writer. b. Aug. 23, 1896; Educ.: Madras. Editor of Vedas & Upanishads in Tamil; Short Story Writer, biographer, translator, Indologist, and research worker. Publications: Life and Teachings of Mazzini; A. B. C. of Vedas; Translation of Sama, Yajur and Atharva Vedas. Address: Radha Niwas, 375, First Road, Khar, Bombay-52.

JAMIR, R. C. Chitten, M.A., LL.B., L.S.G.D., Minister for Finance & Revenue, Planning & Coordination, Industries & Commerce, Nagaland, since March 1969. b. in Mokokchung Dist., Feb. 1926; Educ.: Mokokchung High School; Gauhati; Allahabad Univ. Joined Naga National Council, 1946; broke away from Phizo en use of violence; participated in first conference of Naga People's Convention, 1957; elected member, Select Cttee. of the Convention; member, N. P. C. delegation, Delhi, 1957; elected member, Exec. of N.P.C., 1959; member of Naga delegation to New Delhi, 1960; elected to the Interim Body, 1961; Member, Exec. Council, Naga Interim Body, 1961-63; elected M.L.A., Nagaland 1963; Min. for Agriculture, Nagaland, 1964-69. Address: Kohima: Mokokchung, Nagaland.

JAMIR, S. Chubatoshi, B.A., LL.B., Dy. Min. for Food, Agri., Comm. Devpt. & Co-op., Govt. of India, since June 1970. b. Oct. 17, 1931; Educ.: Univ. of Allahabad. Secy., Naga People's Convention; member: Negotiating Body, N.P.C.; Interim Body, Nagaland, 1961; Chairman, Boundary Commission for Nagaland; elected to the Lok Sabha from Nagaland, 1962 & 1967; Parly. Secy. to the Min. of External Affairs, 1962-67; member: Indian delegation to the 17th Session of the U.N., 1962; A.I.C.C.; Leader of the delegation—173rd Session of the Governing Body of the ILO; Dy. Min. for: Railways, March-Nov. 1967; Labour, Employment and Rehabilitation, Govt. of India, 1967-70. Address: Mokok-chung, Nagaland; New Delhi.

JASOKIE, John Bosco, Education Minister, Nagaland, since March 1969. b. 1926; Educ.: Kohima and Shillong. Joined Phizo's Naga National Council; Publicity Officer, NNC, till 1955; broke away from Phizo due to disagreement on use of violence for achieving success in the Naga political movement; was Secy., Naga People's Convention; Exec. Councillor till Dec. 1963; has been a Cabinet Minister since 1963. Address: Kohima, Nagaland.

JATTI, B. D., B.A., LL.B., Lt. Governor of Pondicherry, since 1968. b. Sept. 10, 1912, at Savalgi, Bijapur Dist.; Educ.: Bijapur Govt. High School; Rajaram Coll. and Sykes Law Coll., Kolhapur. Practised at Jamkhandi; was Min., Jamkhandi State; became its Chief Min.; nominated M.L.A., Bombay to represent the merged areas; Parly. Secy. to Mr. B. G. Kher, then Chief Minister of Bombay; Dy. Min. for Health and Labour, Bombay, 1952; M.L.A., Mysore after the reorg. of States; Chairman, Land Reforms Cttee.; Chief Min., Mysore State, 1958-62; re-elected, M.L.A., Mysore from Jamkhandi constituency, 1962 and 1967; Min. for Fin., 1962-65; Min. for Food, 1965-67. Address: Pondicherry.

JAYKRISHNA, Harivallabhdas, Industrialist; Chairman: Gujarat State Fertilizer Co. Ltd.; Shri Ambica Mills Ltd.; Nirlon Synthetic Fibres & Chemicals Ltd.; Vulcan Insce. Co. Ltd.; The Baroda Rayon Corpn. Ltd. b. Oct. 31, 1919: Educ.: Calcutta and Ahmedabad. Dir.: New India Industries Ltd.; Central Bank of India

Ltd. and several other Cos.; Congress, M.L.A., Bombay from Ahmedabad City, 1952; donated about Rs. 20,00,000 to Ahmedabad Educ. Soc., Gujarat Univ. and other instts.; has toured extensively abroad; Employers' Rep. on behalf of the Govt. of India to I.L.O. Confee. at Geneva; Pres.: Gujarat Chamber of Commerce, 1961–62; Ahmedabad Mill Owners Assoc., 1956–57; 1960–61; member, Adv. Board of the Industries Devpt., Gujarat State; Exec. Chairman, Gujarat Cancer Society; Chairman, Gujarat State Film Advisory Cttee.; Mayor, Ahmedabad, 1961–65. Address: Shahibag, Ahmedabad 4.

JHA, Aditya Nath, B.A. (Hons.), M.A., LL.B., L.C.S., Lt. Governor, Delhi, since Sept. 7, 1966. b. Aug. 18, 1911 § Educ.: Allahabad and Oxford. Joined the I.C.S. in 1936 at Faizabad, U.P.; worked in the Foreign & Political Deptt. of the Govt. of India, 1939—42; worked in different capacities as Secy.: Agr., Irrigation, Plng.; Food Production Commr., Devpt. Commr. in U.P. till 1954; Chief Secy., Govt. of U.P., 1954—58; Vice-Chancellor, Sanskrit Univ., Varanasi, 1958—60; Dir., National Academy of Admn., Mussoorie, 1959-62; conferred Hon. D. Litt. by the Sanskrit Univ.; Secy., Plng. Commn., 1962—63; Union Deptt. of Defence Production, 1963—64; I. & B., Govt. of India, 1964—66; Ch. Commr., Delhi, March-Sept. 1966. Address: Maya, George Town, Allahabad (U.P.); New Delhi.

JHA, Binodanand, Ex-Chief Minister, Bihar. b. 1900; Educ.: Calcutta. Jailed five times during his political activities; elected M.L.A., Bihar, 1936; Parliamentary Secy., 1937-39; Minister, for L.S.G. and Public Health, Bihar, 1946; Leader, Indian delegation to the 44th Session of the I.L.O., 1960; nominated member, All-India National Integration Cttee.; Revenue Minister, Bihar; elected leader, Bihar Leg. Congress Party, 1961; Chief Min., Bihar, 1961-63; resigned under the 'Kamaraj Plan', Aug. 1963; has been taking active interest in the trade union movement. Address: Patna.

JHA, Lakshmi Kant, B.A. (Cantab.), I.C.S. (Retd.), Indian Ambassador to U.S.A., since May 1970. b. Nov. 22, 1913; Educ.: Hindu Univ., Banaras and Trinity College, Cambridge. Dy. Seey., Govt. of India Supply Deptt., 1942–46; Chief Conllr. of Imports and Exports, 1947–50; Chairman of the Contracting Parties to the G.A.T.T., 1957–58; Chairman, U.N. Interim Cttee. for Co-ordination of Intn'l. Commodity Arrangements, 1959–61; Jt. Secy., Min. of Commerce and Industry, 1950–56; Secy., Min. of Heavy Industries, 1956–57; Addl. Secy., Min. of C. & I., 1957–60; Secy., Dept. of Economic Affairs, Min. of Fin., 1960-64; Secy. to the Prime Minister, 1964–67; Governor, R.B.I., 1967-70. Publications: India's Foreign Trade, Parts I & II. Address: C/o External Affairs Ministry, New Delhi.

Poet & Critic. b. Oct. 3, 1907, at Jamnagar; Educ.; Mawanagar High School, Jamnagar; Educ.; Coll., Bombay; Samaldas Coll., Bhavnagar. Fellow, Bombay Univ., 1949-59; Member: Board of studies in Gujarati of the Univs. of Bombay, Poona, S.N.D.T., Baroda, Gujarat & Delhi; member, Adv. Board for Gujarati & Gen. Council, Sahitya Akademi, New Delhi; Producer, Spoken Word, Gujarati, A.I.R., Bombay, 1956-59; Delegate, the XXXIV Int'l. PEN Cong., New York, June 1966. Publications: Poems: Chundradoot; Phool Dol; Aradhana; Abhisar; Kavyasushama; Criticism: Thoda Vivechan Lekho; Paryeshana Kavyavimarsha; Abhigama; Literary History: Gujarati Sahityanun Rekha Darshan;

Translations of Abhijnana Shakuntalam and Hamlet. Address: 1/7, Samant Block, Cama Road, Andheri, Bombay 58.

JOHNSON,\* Leslie James, M.A. (Punjab), I.C.S., Chairman, Oil and Natural Gas Commn., since May 1966. b. Sept. 8, 1914; Educ.: St. Fidelis' School, St. George's Coll., Mussoorie, U.P.; Govt. Coll., Lahore. Joined the I.C.S., 1938; held various positions in the U.P. Govt. till he became Regional Food Conllr., 1947–48; Dt. Magistrate, Banda, 1948–49; Dir. of Civil Supplies, Delhi, 1950–52; Chief Secy., Delhi State, 1952–54; Dy. Secy., Min. of Rehab., 1954–55; Chief Settlement Commr. and Jt. Secy., Govt. of India, 1955–59; Chief Adm'or., Dandakaranya Project, Dec. 1959–June 1964; Dir.—Genl. of Relief, Min. of Rehab., 1964–65; Addl. Secy., Union Deptt. of Rehab., 1965-66; is also a good painter. Address: C/o Tel Bhavan, Dehra Dun.

JONES, Wilson Lionel Garton, Padma Shri (1965), leading Billiards Player, since 1950. b. May 2, 1922; Educ.: Bishop's High School & St. Vincent's High School, Poona. National Billiards Champion of India, 1950-52, 1955, 1957, 1960, 1961, 1963-65; National Snocker Champion of India, 1948, 1952, 1954, 1958, 1960; represented India in World Billiard Championships, 1951, 1952, 1954, 1958, 1960, 1963; World Billiards Champion (Calcutta) 1958, (Auckland) 1964: Arjuna Award, 1963; retd. from all competitions, 1967. Address: No. 2, Wallace Flour Mills Co., Ltd., Sleater Road, Bombay 7.

JOSHI, Harideo, Min. for Industries, Mines, and State Enterprises, Rajasthan, since April 28, 1967. b. Dec. 17, 1921. Started career as an ordinary teacher of Sewa Sangh in Dungarpur; member, A.I.C.C. and P.C.C. 1949; Gen. Secy., Rajasthan P.C.C., 1950-60; M.L.A., Rajasthan, since 1952; Chief Whip, Rajasthan Assembly Cong. Party, 1957-63; Chairman, P.A.C., Rajasthan Assembly, 1957-65; Founder Editor, Daily 'Navyug', Jaipur; also wkg. Pres., Rajasthan P.C.C., since May, 1962; Min. of Publicity, Mines and Public Health, Rajasthan, 1965-67. Address: Nai Abadi, Banswara; Farm House, Octroi Outpost Sodala, Ajmer Rd., Jaipur 6.

JOSHI, K. L., M.A. (London), Vice-Chancellor, Univ. of Indore, since Nov. 1967. b. Sept. 9, 1907; Educ.: Marwari Vidyalaya High School, Bombay; Wilson Coll., Bombay; Univ. Coll., London. Prof., S. & D. Arts Coll., Ahmedabad & Wilson Coll., B'bay 1937-45; Education Officer and Asstt. Educational Advisor, Min. of Education, Govt. of India, 1945-55; Chief, Educational Division, Planning Commission, Govt. of India, 1955-64; Mem. of various education cttees., Min. of Education, Planning Commn. and U.G.C.; Secy., Panel on Education, Planning Commn., 1956-63; Secy., U.G.C., 1964-67; travelled widely, particularly U.S.A., U.S.S.R. G.D.R. & W. Germany etc., to study educational systems in different countries, 1965-66. Publications: Some notes on University Education. Address: Vice-Chancellor, University Indore, Indore (M.P.).

JOSHI, Puran Chandra, M.A., LL.B., Communist Leader and member, National Council, C.P.I.; Journalist. b. April 14, 1907; Educ.: Allahabad Univ. Joined the C.P.I. as a student, Dec. 1928; convicted in Meerut Conspiracy case, 1929-34; member, Central Cttee. and Gen. Secy., 1934-47; was in the Central Cttee. since 1956; Editor, New Age, 1958-62; is in the U.P. State Council and Executive; is working on a scientific history of Indian Communism. Publications: Communist Reply to Working Committee; 1857 Rebellion. Address: 7/4, Asaf Ali Road, New Delhi.

<sup>\*</sup>Has since retired.

JOSHI, Ramchandra Bhikaji, M.A. (Bom.), Kavyatirtha (Cal.), Marathi Writer; Dir., Marathi Samshodan Mandal, Bombay. b. June 26, 1903; Educ.: Holkar Coll., Indore; Allahabad Univ.; Bombay Univ.; Kavyatirtha (in Sanskrit Poetry and Drama). Started writing in 1932–33; member, P.E.N., All India Centre. Publications: Two volumes of short stories in Marathi & two of stories translated from Urdu; two volumes of Travelogues in Marathi; a volume of essays in criticism in Marathi; a novel translated from Urdu. Address: 2, Zapoorza, Sahitya Sahawas, Bandra (East), Bombay 51.

JOSHI, Shridhar Mahadev, B.A., LL.B., M.P. (Lok Sabha), Politician; ex-Chairman, Samyukta Socialist Party; Social Worker. b. Nov. 12, 1904; Educ.: Ratnagiri; New English School, Fergusson Col. and Poona Law Coll., Poona. Joined Congress, 1930; often jailed in the freedom movement; Founder Mem., Cong. Socialist Party; Member, Bombay Assembly, 1952–62; Gen. Secy.: Samuyukta Maharashtra Samiti; Vice-Pres., All India Defence Employees Federation. Address: 1170, Sadashiv, Poona 2; 29, Canning Lane, New Delhi 1.

JOSHI, Umashankar Jethalal, M.A.; Bharatiya Jnanpith Award for 1967 with Dr. K. V. Puttappa, Gujarati Poet, Critic, Essayist; Vice-Chancellor, Gujarat Univ., since Nov. 1966. b. July 21, 1911; Educ.: Bamna; Idar High School; Gujarat Coll.; Elphinstone Coll. Member: Sahitya Akademi, Gen. Council and Exec. Board; visited: China, Indonesia, Malaya, 1952; U.S.A. and U.K. as a member, Govt. of India Team to study Gen. Educ., 1956; attended the 29th World P.E.N. Congress, Japan, 1957; member, Indian Cultural delegation to U.S.S.R., 1961. Publications: Vishva Shanti; Gangotri; Nisheeth; Gul-e-Poland (Tr.); Prachina; Atithya; Sapna Bhara; Shaheed; Shravani Melo; Visamo; Goshthi; Ughadi Bari; Sama-Samvedan; Akho: a Study; Abhiruchi; Kavini Sadhana, Shri ane Saurabh; Gujarat in the Puranas; Translations: Uttar-Ramacharita, Sakuntala. Address: Vice-Chancellor's House, Ahmedabad 9.

JOSHI, Vishwanath Janardan, B.Sc. (Elec. & Mech. Eng.), M.S. (Met. Eng.) (MONT. U.S.A.), Master of the Mint, India Govt. Mint, Bombay, since March 15, 1966. b. May 8, 1918; Educ.: Elphinstone Coll., Bombay; Banaras Hindu Univ.; Montana Univ., U.S.A. Stores Officer, Tisco, 1943-48; awarded Govt. Scholarship for advanced studies overseas, 1948-50; Asstt. Dir. of Industries, Govt. of Bombay, 1951-53; Asstt. Mint Master, Bombay and Calcutta, 1954-57; Deputy Mint Master, Hyderabad Mint, 1957-60; General Manager, India Govt. Silver Refinery, Calcutta, 1960-66. Address: Mint House, Ballard Road, Bombay 1.

JOSHUA, Gurram, Ubhaya Bhasha Praveena (Andhra), Kala Prapurna (Andhra Univ.) 1969, Padma Bhushan (1970), M.L.C., Telugu Poet. b. Sept. 28, 1895; Educ.: Vinukonda, Guntur Dt. Started career as a school teacher; Telugu Pandit, 1920-42; Song Publicity Officer, Govt. of Madras, 1942-45; Producer, A.I.R., Madras, 1956-60; awarded the titles of Kavita Visarada, Kavi Kokila, Madhura Srinadha, Nava Yuga-Kavi-Chakravarthi, Viswa-Kavi-Samrat, etc.; All India Sahitya Akademi's award for the best work in Telugu Literature for his book Kristu Charitra, 1965; member, A.P. Sahitya Akadami. Publications: Firadausi; Gabbilamu; Bapuji; Netaji; Kotta Lokam; Kristu Charitra; Khanda Kavyalu (7 parts), etc. Address: Gopalakrishniah Tota, Guntur 2.

KAKAR, H.E. Mr. Jagdish Chandar, B.A. (Hons.), High Commissioner to Zambia, since 1969. b. Jan. 1, 1915; Ednc.: Bishop Cotton School, Simla; Govt. Coll., Lahore; Univ. Coll., London. Indian Air Force (Administrative and Special Duties Branch), 1941-47; I.F.S., since 1948; First Secy.: Kabul, Karachi, Washington; Dir., Min. of Ext. Affairs; Counsellor, London; High Commr. for India in Ghana (concurrently accredited as High Commr. to Sierra Leone and Amb. to Liberia, Guinea and Mali), 1962-66; Amb. to Hungary, 1966-69. Address: C/o Ministry of External Affairs, New Delhi.

KAKATI, Satis Chandra, B.A. (Hons.) (Econ.), Concurrently Editor, The Assam Tribune (English Daily) since 1963 & Asam Bani (Assamese Weekly), since 1954. b. Oct. 1914; Educ.: Govt. Cotton Coll., Gauhati. Correspondent of Hindusthan Standard and U.P., 1936-47; Asstt. Dir. of Publicity, Govt. of Assam, 1948-51; Asstt. Editor. Assam Tribune, 1951-63, Chairman, Gauhati Municipal Board, 1962-63; Pres., Assam Wkg. Journalists Assoc., 1963-64; Member, Stg. Cttee., AINEC, 1963-64; travelled in U.K., 1959, U.S.A., 1960, West Germany, U.K. and France, 1963. Publications: Jawaharlal Nehru; Discovery of Assam. Address: Hillside Road, Uzanbazar, Gauhati, Assam.

KALELKAR, Dattatreya Balkrishna (Acharya Kakasaheb), Padma Vibhushan, 1964; Sahitya Vachaspati; B.A. (Bombay), D. Litt. (Anand & Gujarat Univs.) Academician. b. Dec. 1, 1885; Educ.: Fergusson Coll., Poona. Educationist; Vice-Chancellor, Gujarat Vaidyapith, 1928-34; edited Mahatma Gandhi's Weeklies & Magazines; worked for the spread of Hindi in India; Pres., Hindustani Talimi Sangh (Basic Educ. till 1957), Hindustani Prachar Sabha; Chairman, Backward Classes Commn., 1953-55; Pres.: Gujarat Sahitya Parishad, 1959; Gandhi Hindustani Sahitya Sabha, New Delhi; M.P. (Rajya Sabha), 1952-64; knows 7 languages; travelled extensively all over the world incl. the Himalayas; won National Award, 1966, for his book Jeevan Vyavastha. Publications: 50 Books in Gujarati, Marathi, Hindi and English. Address: Sannidhi, Rajghat, New Delhi.

KAMALADEVI CHATTOPADHYAY, Smt., Politician and Social Worker; Ex-Chairman, All-India Handicrafts Board. b. 1903; Educ.: Mangalore, Bedford Coll., School of Economics, London. Participated actively in freedom struggle, imprisoned several times; member, All India Cong. and Wkg. Cttee., Orgg. Secy., then Pres., All India Women's Cfce.; Pres., Indian Coop. Union; Vice-Pres., World Crafts Council; founder, Indian National Theatre Centre of the Intn'l. Theatre Instt.; travelled extensively; represented India at Intn'l. Cfces., U.N. Commns.; awards: Watumal, Magsaysay for Community Leadership, 1966. Publications: (ten books): Indian Handicrafts; Indian Carpets & Floor Coverings; Socialism and Society; Awakening of Indian Womenhood; Towards a National Theatre, etc. Address: 20, Canning Lane, New Delhi; 6, Chateau Marine, Marine Drive, Bombay 20.

KAMARAJ, K., M.P. (Lok Sabha), Ex-Pres., Indian National Congress; Ex-Chief Min., Madras State. b. 1903; Educ.: Virudhunagar, Ramnad Dist., Tamil Nadu. Entered public life 1920; courted jail in the freedom movement; elected member, Wkg. Cttee., Tamil Nad Cong., and member, A.I.C.C., 1931; elected Secy., T.N.C.C., 1935; elected to Madras Legis. Assembly, 1937 and again in 1946; elected Chairman, Virudhunagar Municipality, 1941; under detention, 1942-45; elected to the Constituent Assembly of India, 1947; chosen as a member, All-India Cong. Wkg. Cttee., 1949; elected to Parliament, 1951 and in bye election from Nagercoil, 1969; Pres., T.N.C.C., 1939-54; elected Leader, Madras Legis. Cong. Party, March 30, 1954, 1957 and 1962; Chief Min., Madras, 1954-63; sponsored the "Kamaraj Plan" for revitalising

the Cong. org.; resigned under this plan for party work, Oct. 2, 1963; visited U.S.S.R., Bulgaria, Hungary, Czechoslovakia, East Germany and Yugoslavia, July-Aug. 1966. Address: No. 8, Tirumalai Pillai Road, Tyagaraya Nagar, Madras 17.

KAMATH, Hari Vishnu, B.Sc. (Hons.), Politician. b. July 13, 1907; Educ.: Mangalore, Presidency Coll., Madras; I.C.S., 1929. Served in the I.C.S., 1930-38; resigned for political reasons; joined Congress, then the National Plng. Cttee. as Secv. and subsequently the Forward Bloc as its Gen. Secy.; was in prison, 1940-45; elected member, Constituent Assembly, 1946; elected to Lok Sabha on P.S.P. ticket, 1955 & 1962; elected Chairman, P.S.P., M.P., Feb. 1958; Delegate: Belgrade Cfce. of the Socialists Alliance of Wkg. People of Yugoslavia, April 1960: Council Cfce. of Socialist Intn'l, Haifa, Israel, 1960; visited U.K. and U.S.A. to observe the Gen. Election and Presidential election, respectively, 1964, Taiwan, 1966; apptd. member, Adm. Reforms Commn., Jan. 1966; Chairman, Parly. Board, PSP, 1965; visited France, U.K., Canada, U.S.A. to study Administrative Methods and Techniques, 1967; contested election to the office of Vice-Pres. of India, but lost to Cong. Party, Aug. 1969. Publications: Communist China Colonizes Tibet, Invades India. Oct. 1959. Address: Dhantoli, Nagpur.

KANE, Pandurang Vaman, M.A., LL.M., LL.D. (Allahabad, Poona & Bombay Univs., Honoris Causa), Bharat Ratna (1963), Hon. Degree of Doctor of Laws, Bombay Univ., 1963, Rabindranath Birth Centenary plaque by the Asiatic Society, 1967, Sanskrit Scholar; Advocate; National Research Prof. of Indology, since Aug. 15, 1959. b. May 7, 1880; Educ.: S. P. G. Mission High School, Ratnagiri Dist.; Wilson Coll. and Govt. Law Coll., Bombay. Life member and for many years Vice-Pres., Bombay Asiatic Soc.; Vice-Chancellor, Bombay Univ., 1947-49; Fellow, London School of Oriental Studies; Govt. of India's rep. to the Intn'l Cong. of Orientalists at Paris, 1948, Istanbul, 1951, Cambridge, 1954; nominated M.P., 1953-59; Sahitya Akademi award of Rs. 5,000 for his 4th volume of the History of Dharmasastra, as the best work on Sanskrit Literature during 1953-56. Publications: History of Sanskrit Poetics, History of Dharmasastra, Vols. I-V (two parts), Hindu Customs and Modern Law and others. Address: Angre's Wadi, Bombay 4.

KANERIA, Raghav, Diploma in Sculpture & A.R.C.A., M.A. (Art) from Royal Coll. of Arts (London,), Professional Sculptor. b. March 19, 1936 at Anida, Saurashtra; Educ.: Fine Arts College, Baroda, Royal Coll. of Art. Lond., Govt. of India Scholar, 1960–62: Commonwealth Scholar, 1964–67, Exhibited in the Paris Biennale, 1959; Commonwealth Art Exhibition, London, 1962; Expo '68 Montreal (Canada); won several awards — Lalit Kala Akademi Award 1959 and 1963; Silver Medal of All-India Fine Arts & Crafts Soc., 1962; Gold & Silver medals of the Bombay Art Society, 1962, etc.; won Sir Robert Sainsbury Award of £ 650, Lond., 1967. Works in Collections: Art Council of Gr. Britain-Fitzwilliam Museum of Cambridge. Address: C/o Jyoti Bhatt, Fine Arts College, Baroda 2.

KANUNGO, Nityanand, B.A., B.L., Governor of Bihar, since Dec. 7, 1967. b. May 4, 1900; Educ.: Ravenshaw Coll., Cuttack; Univ. Coll., Calcutta. Min. for Home, Orissa Govt., 1937–52; Pres., All-India Village Industries Assoc., Orissa, 1946; Leader, Indian delegation to Intn'l. Rice Commn., 1952; member, A.I.C.C.; Union Dy. Min., Commerce and Industry, Sept. 1954–Aug. 1955;

Union Min. for Industries, Aug. 1955—June 1956; Min. of C. & I., 1956—1957; Union Commerce Min., 1957—62; Min. of Industry, 1962—64; Union Min. of Civil Aviation, June 1964—Aug. 1965; Governor of Gujarat, Aug. 1965—Dec. 1967. Address: Governor's Camp, Patna.

KAPOOR, Prithviraj, B.A. (Punjab), Fellow, Sangeet Natak Akademi, Actor. b. Nov. 3, 1906; Educ.: Middle School, Samundari; Khalsa School, Lyalpur; Edward's Coll., Peshawar. Acted in the first Indian talkie Alamara; toured with Repertoire of 14 plays Shakesperian and others — Poona, Hyderabad, Bangalore, Mysore and Calcutta; New Theatres, 1933-39; worked in 12 N.T. films Vidyapati, Manzil, Seeta, etc.; joined Ranjit Studios, Bombay, 1939; worked in seven films like India Today, Vish Kanya, Pagal, etc.; got the special award for acting in Aasman Mahal from the National Academy of Arts and Muses, Czechoslovakia, July 1966; ran his own theatre company Prithvi Theatres for 16 years; produced several plays — Shakuntala, Ahooti, Ghaddaar, Kisans Gave, etc. Address: 26, Janaki Kutir, Juhu Church, Bombay 54.

KAPOOR, Ranbir Raj Kapoor, Producer, Dir., Actor and Editor. b. Dec. 14, 1924; Educ.: Calcutta and Bombay. Produced the films: Aag, Barsaat, Awara, Shree-420, Boot Polish, Aah, Jagte Raho, Jis Desh Men Ganga Behti Hai, Sangam, Mera Nam Joker under production; won the Filmfare award for best acting (Anari), 1959, (Jis Desh Men Ganga Behti Hai), 1961; direction (Sangam), 1964; editing (Sangam), 1964; member: Jury on Intn'l. Film Festivals, Berlin, Karlovy Vary, Moscow, 1966-69; Chairman of the Jury, 4th Intn'l. Film Festival, New Delhi, Dec. 1960; won the Grand Prix at the Intn'l. Film Festival, Karlovy Vary, Czechoslovakia, for his film Jagte Raho, 1958. Address: Devnar Cottage, Devnar Farm, Trombay Road, Chembur, Bombay 71.

KARAN SINGH, M.A., Ph.D., Minister for Tourism & Civil Aviation, Govt. of India, since March 1967. b. March 9, 1931; Educ.: Doon School; Univ., Jammu & Kashmir; Delhi Univ. Appointed Regent, J & K, 1949; elected Sadar-i-Riyasat (Head of State) by J & K Leg. Assembly, 1952; re-elected, 1957 and 1962; Governor, J & K State, April '65-March '67; elected to the Lok Sabha from Udhampur Constituency, 1967; Secretary, Jawaharlal Nehru Memorial Fund, 1966; Chairman, Indian Board for Wild Life; Honorary Major-General, Indian Army; Author. Address: 'Mansarovar', 3, Nyaya Marg, Chanakyapuri, New Delhi 11.

KARANJIA, Russy K., B.A. (Hons.), Publisher & Journalist. Editor-in-Chief, Blitz News Magazine (Weekly), published in English, Hindi & Urdu. b. Sept. 15, 1912; Educ.: St. Xavier's High School & Wilson Coll., Bombay; took trg. in journalism in India & U.K. Commenced journalistic career as reporter, sub-editor, spl. correspondent with the Times of India publications; Dy. Editor, Sunday Standard; Editor-in-Chief, Sunday Standard & Morning Standard (now Indian Express); started Blitz in Feb. 1941; Editor & Dir., Blitz Publications; Author of How Others See Us, Seato, Arab Dawn, Dawn or Darkness, The Mind of Mr. Nehru, The Philosophy of Mr. Nehru, How Nasser Did It, etc.; his intimate interviews with revolutionary leaders like Jawaharlal Nehru, Nikita Khrushchov, Fidel Castro & Gamal Nasser earned him the title of "Chronicler of revolutions & biographer of revolutionaries"; presented a machine-gun named "Port Said" by Pres. Nasser of U.A.R. & the award of the Republican Order of Merit (Grade I), the highest honour of the State. Address: Framroze Court, Netaji Subhas Road, & Bombay.

KARANTH, K. Shivarama, Hon. Doctorate of Letters, Karnatak Univ. and Mysore Univ., 1963, Padma Bhushan (1968), Kannada Author and Publisher. b. Oct. 10, 1902; Educ.: Board High School, Coondapoor, South Kanara. Joined the N.C.O., Feb. 1922; took to writing, 1924; made experiments in child education, drama and dance; pursued literary profession. Publications: Wrote a large number of plays and novels; Balaprapapanch, 3 Vols.—Encyclopaedia for children. Some 20 novels, 20 or more plays, Kannada-Kannada dictionary, a monogram on Yakshagana dance drama, Popular Science Encyclopaedia in Kannada. Address: Puttur (S. Kanara).

KARUNANIDHI, M., Chief Minister, Tamil Nadu, since Feb. 1969. b. June 3, 1924, at Thirukkuvalai, Thanjavur Dist.; Educ.: Thiruvarur Board High School. While a student joined the Dravida Kazhagam; organised the students movement of the Dravida Kazhagam, 1942; founded with Arignar C. N. Annadurai and others, the Dravida Munnetra Kazhagam, 1949; became its Treasurer, 1960; Founder Editor, Murasoli daily, Mutharam bi-monthly and Maravan Madal Weekly—all in Tamil; a good orator, poet and play-wright; has written scripts for several Tamil films; has produced some popular Tamil films; widely known as Kalaignar, courted imprisonment several times; M.L.A., Tamil Nadu, since 1957; Dy. Leader of Opposition 1962-67; Min. for P.W.D. 1967-69; elected leader, D.M.K. Leg. Party, Feb. 9, 1969; elected Pres., D.M.K. Party, 1969. Address: 7-A, South Gopalapuram, Fourth Street, Madras-6.

KASHYAP, N. N., M.A., I.C.S., Chairman, Indian Oil Corpn. Ltd., since Aug. 1966. b. May 26, 1917; Educ.: Govt. Coll., Lahore. Joined the I.C.S., 1941; held various assignments before becoming Finance Secy. at Chandigarh; Member, Bhakra Nangal Control Board and Chairman, Punjab Finance Corpn.; Commissioner and Home Secy., Punjab, 1956-58; Jt. Secy., Min. of Steel, Mines and Fuel, 1958-63; was Dir., National Mineral Dev. Corpn., STC, National Industrial Dev. Corpn. and partime Chairman, Pyrites & Chemicals Dev. Corpn.; Jt. Secy., Min. of Petroleum & Chemicals, 1963-64; was partime Chairman, Cochin Refineries; Managing Dir., IOC in charge of refineries at Gauhati, Barauni and Jawaharnagar (Baroda), 1964-66; Dir. Gen. of Resettlement, Cabinet Sectt., 1965-66. Address: Indian Oil Corpn. Ltd. (Chairman's Office), Indianoil Bhavan, Janpath, New Delhi 1.

KATRE, Dr. Sumitra Mangesh, M.A., Ph.D. (London), Dir., Deccan Coll. Post-graduate and Research Instt., Poona, since 1942; Editor, Dictionary of Sanskrit on Historical Principles. b. April 11, 1906; Educ.; Ganapathi High School and Govt. College, Mangalore; Presidency Coll., Madras; School of Oriental Studies, London Univ., Orientalisches Seminar, Univ. of Bonn. Prof. of Sanskritic Languages, N. Wadia Coll., Poona, 1933-34; S. P. Coll., Poona, 1937-39; Prof. of Indo-European Philology, Deccan Coll. Post-graduate and Research Instt., Poona (1939-42); visiting Prof. of Linguistics, Texas Univ., 1966. Publications: Founder-Editor, New Indian Antiquary and Oriental Literary Digest, & of several commemoration volumes; Formation of Konkani; Paninian Studies; Some Problems of Historical Linguistics in Indo-Aryan, etc. Address: Deccan College, Poona 6.

KATT, Balbirsingh, Diploma in Fine Arts (Santiniketan), and National Cultural Scholar for Sculpture; Sculptor; Lecturer in Sculpture, Faculty of Fine Arts, B.H.U. Educ.: Bombay, Punjab; Vishvabharati Univ., Santiniketan, 1960-64, 1966-67 and Baroda 65-66; won award in sculpture at Akademy of Fine Arts, Calcutta.

1963 and '69; silver medal in graphics at W. B. Youth festival in honour of World Youth Congress at Helsinki, 1962; won first prize in sculpture: Bombay Art Soc., 1966; Gujarat State Art Exhibition, 1966; National Award in Sculpture at National Exhibition of Art, 1967 & '70; received Pres. of India's Plaque of best exhibition at all-India Fine Arts and Crafts Society's Annual Show, 1967; held one man shows of sculptures, Calcutta, Delhi, 1969. Publications: Writes frequently for literary and art periodicals. Address: 5/1, Tilak Nagar, New Delhi.

KAUL, Brij Mohan, General Manager, Western Railway, since Jan. 14, 1970. b. March 13, 1917. Asstt. Traffic Supdt., former B.B. & C.I. Rly., 1939, 57; Dy. Chief Operating Supdt. (Goods & Planning), Western Rly., 1956; was Divsl. Supdt., Kota; Dy. Gen. Manager (Works) & Chief Personnel Officer, North-Eastern Rly., 1960-62; Chief Personnel Officer, S.E. Rly., 1962; Divsl. Supdt., Kharagpur, 1962-64; Traffic Supdt. (Iron & Steel), Garden Reach, 1964-65; Chief Operating Supdt., S.E. Rly., 1965-67; Central Rly., March 1967; Director, Traffic (Transportation), Rly. Board, 1967-69 & Sept. 1969-Jan. 70; Szey., Rly. Board, July to Sept. 1969. Address: General Manager's Office, Western Railway, Churchgate, Bombay 20.

KAUL, Triloki Nath, B.A. (Hons.) (Punjab), LL.B. (Alld.), LL.M. (London), Fellow, Royal Soc. of Arts, London (1963), Hony. Fellow, Kings Coll., London Univ., I.C.S., Foreign Secretary, Govt. of India, since Nov. 7, 1968. b. Feb. 8, 1913; Educ. S. P. Coll., Srinagar; Prince of Wales Coll., Jammu; Law Faculty, Allahabad; King's Coll. & School of Oriental Studies (London Univ.). Passed I.C.S., 1936; Secy., Indian Council of Agril. Research, Govt. of India, 1945-47; First Secy., Indian Embassy: Moscow, 1947-49; Washington, 1949-50; Dy. Secy.-Genl., Indian Delegation to U.N., 1947; Counsellor & later Min., Indian Embassy, Peking, 1950-53; Jt. Secy., Min. of Ext. Affairs, Govt. of India, 1953-56; Chairman, Intn'l Commn., and leader, Indian delegation, Viet Nam, 1957-58; Amb. to Iran, 1958-60; Dy. and Ag. High Commr., London, 1960-62; Amb. to U.S.S.R. and Mongolia, 1962-66; Secy., External Affairs Min., 1966-68. Address: Ministry of External Affairs, New Delhi.

KAUR, Smt. Prabhjot, B.A., Punjab, Padma Shri (1967), Sahitya Akademi Award, 1964, Rajya Kavi by Punjab Govt., 1963, Sahitya Shiromani, 1963. "Grand Prix De/la Rose De France", Poet and writer. b. July 6, 1927; Educ.: Punjab Univ., Lahore. Member, National Commn. of India for UNESCO; is associated with many social and welfare orgs.; her works have been translated into Persian, French, Russian, English, Italian and Rumanian; has rendered into Punjabi works as Dr. Radhakrishnan's My Search for Truth and An Idealist View of Life; Life of Vivekananda by Romain Rolland, on behalf of Sahitya Akademi; rep. of the Punjabi language and the women writers of India at national and intn'l. literary seminars and cfces. Publications: Poet y: Lat Lat Jet Jage, 1943; Khari Pabbi, Ban Kapasi, Pankheru, Do Rang; Short Story: Kinke, Aman De Nan; has published about 35 works so far. Address: C/o Brigadier Narenderpal Singh, Military Attache, Indian Embassy, Paris.

KEATING, His Excellency Mr. Kenneth B., U.S. Ambassador to India since July 2, 1969. b. May 18, 1900 in Lima, New York; Educ.: B.A. degree from the Univ. of Rochester, 1919 and LL.B. from Harvard, 1923. Served in the U.S. Army during World War I as a private and sergeant; entered World War II as a major and left as brigadier genl.; member, U.S. House of Representatives

for five consecutive terms, 1946-57; member of the Senate from New York, 1958-64; associate justice, New York State Court of Appeals, 1965-69. Address: Shanti Path, Chanakyapuri, New Delhi 21.

KERREMANS, H.E. Dr. Charles, A.O., Ph.D., D. Litt., Ambassador of Belgium to India, since March 1970. b. Oct. 28, 1915. Joined the Belgian Foreign Service, 1946; served in different capacities in Belgian Missions abroad including Bonn, Vienna, Paris; was attached to the Royal Court, April 1956; promoted Chamberlain to His Majesty the King, July 1964; Ambassador for Belgium to Finland, 1965–70; holds several Belgian and foreign honorary distinctions. Address: 24, Tilak Marg, New Delhi-1.

KESAVAN, B. S., M.A. (Lond.), Diploma in Librarianship (Lond.), Padma Shri (1960), Hon. Library Advisor
to the Govt. of India; Chairman: Doc. Sectional Cttee.
(EC2), ISI; Board of Studies of Doc. and Reprography
Trg. Course, CSIR; Member, U.G.C. Cttee. on Library
Science; visiting Prof., Dept. of Lib. Science, Delhi Univ.
b. May 10, 1909; Educ.: Mysore and London Univs.
Librarian, National Library for nearly 15 years; Scientific
and Industrial Research; Asstt. Secy., C.S.I.R.; was
member, International Advisory Cttee. on Bibliography,
Documentation and Terminology appointed by the
UNESCO; was Pres., Indian Library Assoc., Vice-Pres.,
Indian Assoc. of Special Libraries and Information Centres;
Hon. Member, Indian Assoc. of Special Libraries & Information Centres; was Dir., Indian Nat. Scientific Documentation Centre. Publications: National Library of India.
Address: 93B, Press Road, New Delhi.

KESKAR, Dr. Balkrishna Vishwanath, D.Litt. (Paris), 1935, Chairman: National Book Trust, India, since June 4, 1962; Cement Corpn. of India. b. 1903; Educ.: Poona, Hyderabad, Banaras (Kashividyapith) and Paris. Congress worker in the U.P. since 1920; Gen. Secy., Indian National Cong., 1946; elected to the Constituent Assembly from U.P., Dec. 1947; Member, Indian delegation to the U.N. Gen. Assembly, 1950; widely travelled in America, Europe and the Far East; M.P., Lok Sabha, 1952-62; Dy. Min. for Ext. Affairs, 1948-52; Min. of Information and Broadcasting, 1952-62; member, Foreign Affairs Sub-Cttee. of Cabinet, 1958-62; Chairman, Road Transport Taxation Enq. Cttee., Union Min. of Transport, 1965-67. Address: 3, Kushak Road, New Delhi 11.

KHADILKAR, R. K., B.A., LL.B., Minister of Supply, Govt. of India, since June 1970. b. Dec. 15, 1905; Educ.: Fergusson and Law Colls., Poona, Univ. of Bombay. Social and political worker; member: Poona Univ. Court; Indian National Congress, 1930-48; M.P.C.C.; Founder-member, Congress Socialist Party, 1934; Mg. Editor, Lokshakti, Congress Daily, 1939-40; served several terms of imprisonment, 1930-45; left Congress and organised All India Peasants and Workers Party, 1948; its Gen. Secy., 1953; rejoined Congress, 1962; member, Lok Sabha, since 1957; member and Chairman, P.A.C., Lok Sabha; Dy. Speaker, Lok Sabha, 1967-69; Min. of Supply in the Min. of Fin., 1969-70; visited U.S.A. as member, Parliamentary Delegation, 1963; visited U.S.S.R. and German Democratic Republic, 1966; visited Czechoslovakia, Italy, U.S.S.R., U.S.A., Japan, China, Rumania and German Democratic Republic. Publications: Nava Cheenchya Nirmitichi Roopresha. Address: 'Pushpak', Laxmi Road, Poona 2; 1. Tughlak Road, New Delhi 11. KHAIRAGARH, Rafi Padmawati Devi, Rani of: M.P., Social worker. b. July 17, 1918, at Pratabgath, U.P.; Educ.: Privately. Founder, Indira Kala Sangit Viswavidyalaya.; Founder Pro-Chancellor, Viswavidyalaya; member: Board of Governors, Scindia Kanya Vidyalaya, Gwalior; Governing Body, All-India Women's Educ. Fund Assoc.; Pres.: Mahila Vibhag, Rashtra Bhasha Prachar Samiti, M.P.; has widely travelled in India and abroad; attended, Plenary Session, 13th and 14th World Health Assemblies, Geneva, 1960; New Delhi, 1961; M.L.A., M.P., 1952-67; Min. for Social Welfare, M. P., 1963-64 & for Local Govt., 1964-67; leader, Intn'l Cfee. of Social Work, Athens, 1964; M.P. Lok Sabha from Rajnandgaon Constituency, 1967. Address: 225, Rouse Avenue, New Delhi 1; Kamal Vilas, Khairagarh, M.P.

KHAITAN, Matadin, Business man. b. May 1913. Is Cttee.-member, Calcutta Stock Exchange Assoc.; Indian Sugar Mills Assoc.; Life-member, Indian Red Cross Soc.; member: Devpt. Council for the Sugar Industry, Govt. of India; Indian Sugar Cane Devpt. Council, Govt. of India, New Delhi; Dir.: Matadin Khaitan & Co., Ltd.; Vegetable Products Ltd.; Hind Sugar Co. Ltd.; Tulsipur Sugar Co. Ltd.; Trustee: Matadin Khaitan Charitable Trust; Gyan Bharati; travelled widely in Japan, Far East, U.S.A. and Europe; visited U.S.A., Germany, U.K., in National Productivity Council Marketing & Distributing Team, 1960. Address: Khaitan House, 27, Vivekanand Road, Calcutta 7.

KHAN, Barkatullah, B.A., LL.B., Minister for Law & Judicial, Jails, Leg. Assembly, Wakf, Linguistic Minorities & Power, Rajasthan, since March 1967. b. Aug. 25, 1920; Educ.: Jodhpur & Lucknow Univ. Min., former Jodhpur State, 1948; Resident Rep. of former Jodhpur State in Delhi; Pres., Municipal Board, Jodhpur, 1951; M.P., 1952-57; M.L.A., Rajasthan, 1957; Dy. Min. for Planning, Power, Tech. Educ., State Enterprises and Tourism, Rajasthan, 1960-62; Min. for Local Self-Govt., Tourism, Housing, Linguistic Minorities & Wakfs, Rajasthan, 1962-67; has been an active member of Cong. Address: 49, Civil Lines, Jaipur.

KHAN, Dr. Jehangir, a leading Tabla Player. b. Jan. 11, 1869, at Banaras; Educ.: Banaras, Bareilly, Delhi and Lucknow; had trg. in tabla under late Ustad Mubarak Khan Sahib, Abid Hussain Khan Sahib of Lucknow and Chhannu Khan Sahib of Bareilly; attained proficiency in the tabla styles of Ajirada Purab and Delhi. Obtained President's Award, March 1959; degree of Doctor of Music was conferred by Indira Kala Music Univ. of Khairagarh. Address: 21, Tukoganj, Safed Kothi No. 1, Indore.

KHAN, Mohd. Ayub, B.A., Minister for Health, Fisheries, Forest, Games, Social Welfare and Local Self Govt., Jammu and Kashmir, since March 1967. b. Sept. 28, 1923; Educ.: Amar Singh Coll., Srinagar. Worked in Kashfi Kohistani Anjuman in Pogal Paristan, 1944-47; Dist. Rehabilitation Officer, 1947-51; elected member, State Constituent Assembly, 1951; Parliamentary Secy., 1952; Dy. Speaker, 1957; elected Chief, National Confee., Jammu Province, 1957; was Pres., Central Co-op. Bank, Jammu; Works and Transport Minister, 1963; Revenue, Transport, Housing and Excise Minister, 1964. Address: Minister for Health, Jammu & Kashmir, Srinagar.

KHAN, Ustad Bismillah, Padma Shri (1961), Padma Bhushan (1968), Musician. b. March 21. 1916 at Dumraon, Shahabad Dist., Bihar; Educ.: Received Shahnaee training under his uncle Ali Bux Khan and father Paigam. ber Khan. Gave his first public performance at the age of

14 at the All India Music Conference at Allahabad, 1930; Academy Award for Hindustani Instrumental Music, 1956; participated in the Edinburgh International and the Commonwealth Arts Festival, London & Liverpool, 1965; gave numerous musical concerts at the Expo '67 at Montreal, Canada including the Lincoln Centre, New York, U.S.S.R., and all the countries of the Middle East, 1967; participated: the Sheraz Festival, Iran & Nepal, Oct. 1968; Intn'l. Music Council, Cannes, Jan. 1970. Address: C. K. 46/62, Sarai Harha, Banaras.

KHANDEKAR, Vishnu Sakharam, Padma Bhushan (1968), Marathi Writer; Pres., Marathi Sahitya Sammelan, 1941. b. Jan. 11, 1898; Educ.: Sangli High School, Sangli; Fergusson Coll., Poona. Headmaster, T. E. School, Shiroda (Dt. Ratnagiri), 1920-38; Screenplay Writer to Huns Pictures, Navyug Pictures & Prafulla Pictures, 1936-47; Author, Short Story Writer, Critic, Novelist, Essayist. Publications: About 60 Books in Marathi, many of which have been translated into Gujarati, Tamil, Hindi, etc.; Sahitya Akademi Award for his Novel Yayati (1961). Address: 5, Rajarampuri, Kolhapur.

KHANNA, Dinesh, B.Sc. Engg. (1st Class), Arjuna Award (1966), leading badminton player. b. Jan. 4, 1943; Educ.: Amritsar, Chandigarh. Played in the National Championships as a junior, 1956; rep. Indian students team in Malaysia, 1962 and won the team championship; has rep. India in the Thomas Cup Matches and various test matches; rep. India and won: the Men's Single's Title in the Asian Badminton Championships, Nehru Memorial and Central India Singles Titles, 1965; ranked India's No. 1 for 1965-66, '66-67; reached the semi-finals in the all England Championship, 1966; National Champion, 1966-67; Captained an Indian team to East Africa, 1968; selected to lead India in the Asian Badminton Championship at Manila, in 1969. Address: 12, Ram Nagar, Race Course Road, Amritsar.

KHANNA, Mr. Justice Hans Raj, B.A., LL.B., Chief Justice, Delhi High Court, since Aug. 1, 1969. b. July 3, 1912; Educ.: Amritsar and Lahore. Practiced at Bar till 1952; Dist. & Sessions Judge, 1952; Special Judge to try Ram Krishna Dalmia and others, 1958-59; Dist. & Sessions Judge, Delhi, 1959-62; Judge, Punjab High Court, 1962-66; Judge, Delhi High Court, 1966-69; Commission of Inquiry to report about the charges against the former Chief Ministers and Ministers of Orissa. Address: 13, Tuglak Road, New Delhi.

KHANOLKAR, Dr. Vasant Ramji, B.Sc., M.D. (London), Hon. LL.D. (Melbourne), Hon. D.M.S. (Perugia), Hon. F.R.C.P. (Edin.), F.A.Sc., F.N.I., Hon. LL.D. (Bom.) (1965), Hon. D.Sc. (Osmania), Padma Bhushan (1955), Scientist; National Research Prof. in Medicine, since April 1963. Ex-Vice-Chancellor, Bombay Univ. b. April 13, 1895; Educ.: Quetta; Bombay; London Univ. Has done pioneering work on cancer in India; elected Chairman, Intn'l. Cancer Research Commn., 1950; elected Pres., Intn'l Union against Cancer for four years, July 1958; member, U.N. Scientific Cttee. on the Effects of Atomic Radiation, since 1956; apptd. Vice-Chairman, June 1958; received citation from the Cancer Cytology Foundation of America, 1960; member, Academy of Medical Sciences, U.S.S.R.; Hon. Fellow, Royal Soc. of Medicine, Lond.; Pres., National Instt. of Scs. of India, 1965. Publications: 118, Scientific publications, including a book entitled "A Look at Cancer". Address: 66, Padmalaya, Sion East, Bombay 22; Indian Cancer Research Centre, Parel, Bombay 12.

KHER, Atmaram Govind, B.A., LL.B., Speaker, U.P., Vidhan Sabha, since March 1969; President, Central Bharat Sevak Samaj, Bhoodan Yogya Samiti & Samyukta Sadachar Samiti, U.P. b. Sept. 25, 1894; Educ.: Jhansi; Central Hindu Coll., Banaras, and Law Coll., Allahabad. Thrice M.L.A., U.P.; member, Dist., Provincial and All-India Cong. Cttee.s, several times; imprisoned for political activities five times; twice Parly. Secy. to Min. of Health & Local Self-Govt.; Min. for Local Self-Govt.; Speaker, U.P. Assembly, 1952-62; Pres.: Bharat Scouts and Guides, U.P.; Chairman, U.P. Drought Relief Cttee. Address: Speaker Bhavan, Mall Avenue, Lucknow.

KHER, Prof. P. G., B.A., LL.B., Minister for Urban Development, Maharashtra, since March 1967. b. Aug. 20, 1911 at Ratnagiri. Courted jail during the freedom movement; was Pres., B.P.C.C.; member, A.I.C.C.; Bombay Municipal Corpn., 1952-57; Chairman: Standing Cttee., Bombay Municipal Corpn., 1956-57; Minimum Wages Cttee. on Glass Industry, Printing Press Industry, Potteries and Cinema Industries, since 1962; Estimates Cttee., State Legislature, 1961-64; elected M.L.A. from Bandra (Bombay), 1957; member: Bombay Univ. Senate, since 1957; Regional Planning Cttee., 1964; is connected with several social, educational and cultural organisations, Bombay; practised at the Bombay High Court for 17 years; Chief Organiser, Rashtra Seva Dal of B.S.D., 1940-47; Pres., National Library, Bandra; elected M.L.A., on Congress ticket from Bandra, 1967. Address: Sachivalaya, Bombay 32.

KHOBRAGADE, Bhaurao Dewaji, B.A. (Nagpur), Barrister-at-Law (Lincoln's Inn), Deputy Chairman, Rajya Sabha, since Dec. 17, 1969; Founder General Secy., Republican Party of India. b. Sept. 25, 1925; Educ.: Chanda, Nagpur. Secy., Sch. Caste Students' Fed., M.P., 1943-44; Pres., Nagpur Pradesh S.C. Fedn., 1953-55; Gen. Secy., All India, S.C.F., 1956-57; Founder Pres.: Siddharth Shikshan Sahayyak Sanstha (Nag-Vidarbha); Dr. Babasaheb Ambedkar Education Society and Dr. Ambedkar Memorial Society; elected to Rajya Sabha, 1958 & 1966; attended World Buddhist Confee., Bangkok, 1958; offered satyagraha in favour of landless labourers of Maharashtra, 1959; an organiser of the nation-wide satyagraha in 1964; member, Public Accounts Committee, 1963-64. Address: Chanda; Rajya Sabha, New Delhi.

KHOSLA, Jagan Nath, B.Sc. (Econ.) (Lond.), Ph.D. (Econ.) (Lond.), Barrister-at-Law, Pres., Indian Council for Cultural Relations, N. Delhi, since 1968; Dir., Indian Instt. of Public Adm., New Delhi, since Jan. 1964; Pres., Indian Council for Cultural Relations, New Delhi, since 1968. b. Jan. 28, 1906; Educ.: Srinagar, Lahore, London and Paris. Editor, "Indian Journal of Political Science", 1945-48; Fellow, Punjab Univ., 1947-48; represented India at several Intn'l cfces.; Head, Consular Deptt., High Commn. of India, London, 1948-55; Charge d'Affaires, Indian Embassy, Rome and concurrently at Belgrade, 1951-52; Head, "Historical Divns," Min. of Extn. Affairs, 1953-54; Pres., Intn'l. Commn. for Control and Supervision, Laos, Indo-China, 1954-55; Amb. to Czechoslovakia, 1955-58 and concurrently to Rumania, Feb.-Oct. 1958; Amb. to; Indonesia, 1958-61; Yugoslavia, Bulgaria and Greece, 1961-64. Address: Indian Institute of Public Administration, Indraprastha Estate, Ring Road, New Delhi.

KHURANA, Madan Mohan, B.Sc., LL.B., High Commissioner for India in Malawi, since Aug. 28, 1967. b. Jan. 18, 1919; Educ.: Govt. Coll., Lahore; Delhi Univ. Commissioned in the Indian Army, 1941; served in the

Indian National Army under Netaji Subhas Chandra Bose in Malaya; joined I.F.S., Oct. 1948; Second Secy., Indian Commission in Trinidad, & then in Singapore, 1948-53; First Secy. in Singapore, 1953; attended Bandung Conference, Jan. 1955; First Secy., Indian Commission, Nairobi, 1956-59; Asstt. Commsr., Salisbury, 1959; First Secy./CDA Indembassy, Helsinki, 1960-62; Counsellor, CDA Helsinki, 1962-63; Counsellor at Bonn, 1963-67. Address: C/o Ministry of External Affairs, New Delhi.

KILACHAND, Ambalal, Business man. b. July 23, 1912; Educ.: Elphinstone High School, Bombay and in England. Dir., Kilachand Devchand & Co. Private Ltd., and their associated companies as also other private & public limited concerns including the Kesar Sugar Works Ltd., The New Great Ins. Co. of India Ltd., The Indian Dye-Stuff Industries Ltd., Polychem Ltd.; Bombay Suburban Electric Supply Ltd.; former, Trustee, B.P.T.; member, Bombay Customs Advisory Cttee.; Cttee. member, F.I.C.C. & I., New Delhi; Pres., Indian Merchants' Chamber, 1953-54; member, Import Advisory Council, Govt. of India till 1956; Pres.: All India Plastic Mfrs. Assocn., 1963; Rotary Club of Bombay 1965-66; has extensively travelled in the U.K., Europe, the Far Eastern countries, U.S.A., E. Africa and Japan. Address: Office: 7, Jamshedji Tata Road, Churchgate Reclamation, Bombay 20; Resi.: 95, Nepean Sea Road, Bombay 6.

KILACHAND, Chinubhai, Business man. b. June 20, 1919; Educ.: Fellowship High School and St. Xavier's, Bombay and in England. Joined the family firm of Kilachand Devchand & Co. Pvt. Ltd., 1939; developed its Foreign Cotton Deptt.; Dir.: Kilachand Devchand & Co. Pvt. Ltd. & its associated companies; also of other public companies and associations; has travelled widely in the U.K., Europe and in the U.S.A. Address: Office: Jamshedji Tata Road, Churchgate Reclamation, Bombay 20; Residence: 95, Nepean Sea Road, Bombay 6.

KILACHAND, Ramdas, Business man; J.P. b. Sept. 18, 1909; Educ.: Elphinstone High School, Bombay and in England. Joined his family firm of Kilachand Devchand & Co., Pvt. Ltd., 1926; Dir., East India Cotton Assoc. Ltd., for over 25 years: was its Vice-Chairman; Pres., Bombay Oilseeds & Oils Exchange Ltd. for more than 25 years; Chairman, Polychem Ltd.; is Dir.: Kesar Sugar Works, Ltd.; Synthetics & Chemicals Ltd., etc. Ex-Trustee, Bombay Port Trust; Pres., Indian Merchants' Chamber, 1948-49; member: Indian Oilseeds Devpt. Council; Export Promotion Council for Oilseeds, Oils, Oilcakes; was member, Export Promotion Adv. Council; elected M.L.A., Bombay, 1952; Trustee, Bombay Panjrapole; Pres., Commerce Graduates' Assoc., 1964-66; has widely travelled in the U.K., Europe, U.S.A. and the Far East. Address: Office: 7, Jamshedji Tata Road, Churchgate Reclamation, Bombay 20; Residence: 95, Nepean Sea Road, Bombay 6.

KILACHAND, Tulsidas, Business man; Chairman, Kilachand Devchand & Co. Ltd. b. July 1, 1906; Educ.: Elphinstone High School, Bombay & privately in England. Has been Chairman: Synthetic & Chemicals Ltd.; Chairman: New Great Insurance Co. of India Ltd.; India Reinsurance Ltd.; Kesar Sugar Works Ltd.; and AMCO Ltd.; Vice-Chairman, Premier Automobiles Ltd.; Dir.: Walchandnagar Industries Ltd.; Premier Construction Co. Ltd.; Wimco Ltd.; Chairman, Bank of Baroda, 1932-65; Leader, Govt. of India's Trade Mission to Japan, 1947; was member: Export Adv. Council of the Govt. of India; Plng. Commn. Adv.

Board, 1950-51; Stg. Cttee of the Export Promotion Adv. Council & other bodies; Pres., F.I.C.C. & I., 1950-51; Chairman: Bagalkot Cement Co. Ltd., 1949-67; Indian Banks' Assoon., 1961-65; was Governor, Adm. Staff Coll. of India, Hyderabad; elected M.P., 1952; has widely travelled in the U.K., Europe, U.S.A., and the Far East. Address: Office: 7, Jamshedji Tata Road, Churchgate Reclamation, Bombay 20; Residence: 95, Nepean Sea Road, Bombay 6.

KIRLOSKAR, Shantanu Kumar, B.Sc. (M.I.T.) (U.S.A.), Padma Bhushan (1965), "Sir Walter Puckey Prize" (1968), Hony. Life Member, Institute of Engineers (India), Industrialist; Chairman, Indian Institute of Management, Ahmedabad. b. May 28, 1903; Educ.: India; Massachusetts Institute of Technology, U.S.A. Started career with Kirloskar Bros. Ltd., expanded his business on the engineering side; Pres., F.I.C.C. & I., 1965-66; First Pres., Indo-American Chamber of Commerce; Pres., Mahratta Chamber of Commerce and 17 other major establishments; is Director, Boards of 20 companies including Reserve Bank of India (Central Board) & Industrial Development Bank; is nominated by Govt. of India as a member, Board of Trade; Chairman, Cttee. of Economic Devpt., India. Address: Office: Kirloskar Oil Engines Ltd., Elphinstone Road, Poona 3; Residence: "Lakaki", Poona 16.

KOHLI, Dalip Rai, M.A., I.C.S., Lieutenant Governor, Manipur. b. June, 7, 1919; Educ.: Presentation Convent School, Lawrence Coll., Ghora Gali & Govt. Coll., Lahore. Served in the districts of Lakhimpur, Sibsagar & Sylhet, Assam, 1943-47; Seoy. to the Governor, Assam, 1947; with the Cabinet Sectt. and later with Rehab. Min., Govt. of India, 1947-53; headed the organisation in Lahore for implementing Indo-Pakistan evacuee property agreement, 1949; Secy., Deptts. of Planning, Devpt. & Electricity; Commsr. for Hills Division & Devpt. Commsr., Assam, 1953-60; was actively associated with Indian Institute of Public Administration; toured the U.S.A., Canada and some European countries to study their systems of public admn.; Director, India's Aid Mission in Nepal, 1960-65; Jt. Secy. & later Addl. Secy., Min. of Defence, 1965; Govt. of India's Special spokesman during the 1965 Indo-Pak. conflict; member, Indian delegation to Tashkent. Address: Raj Niwas, Imphal, Manipur.

KOLTE, Dr. V. B., M.A., LL.B., Ph.D., Marathi Writer; Vice-Chancellor, Nagpur Univ., Nagpur. b. June 22, 1908; Educ.: Govt. High School, Khamgaon; Morris Coll., and Univ. Coll. of Law, Nagpur; K. B. Malak Gold Medal, 1931; N. K. Behare Gold Medal, 1931. Reader in Marathi, Nagpur Mahavidyalaya, 1956-59; member: Sahitya Akademy, 1957-62; Maharashtra State Language Adv. Board, since 1961; Dean, Faculty of Arts. Nag. Univ. 1961-64; Principal: Nagpur Mahavidyalaya, 1959-64; Vidarbha Mahavidyalaya, Amravati, 1964-66; Pres., Marathi Sahitya Sammelan, 47th Session, Bhopal. Publications: Lawhali (poems); Sod-Chithi (Drama); Bhaskar Bhatta Borikar, Mahanubhao Tatwadnyan; Mahanubhawancha Achardharma; Marathi Santonka Samajik Karya (Hindi); edited: Uddhao Geeta, Rukmini Swayamwar, Shishupal Wadh, etc. Address: C/o Nagpur Univ., Nagpur.

KOMAR, H. E. Dr. Slavko, Order of People's Hero, Partisan Medal (1941), Ambassador of the Socialist Federal Republic of Yugoslavia to India, since Aug. 1967. b. Feb. 16, 1918, in Gospic; Educ.: Zagreb; D.Sc., Univ. of Zagreb. Actively participated in the four-year national liberation struggle headed by Marshal Tito; member, Military-Political Mission representing Yugoslav liberation forces to the British Govt. 1944; member, Federal Exec. Council (Yugoslav Govt.) and Federal Min. for Agriculture and Forestry, 1954-63; was Chairman, Cttee. for Social Plng. and Fin., Yugoslav Federal Assembly (Parliament) 1963-67; member: Central Cttee., Yugoslav League of Communists, 1948-69; Yugoslav Federal Assembly, 1946-67; Pres., National Commission of FAO., 1953-62. Publications: Agriculture in Building up Socialism and articles in Yugoslav and foreign newspapers and magazines. Address: 3/50G, Niti Marg, Chanakyapuri, New Delhi 21.

KOTHARI, B. S., M.A., B.Com., F.C.A., J.P., Business man; Pres., Merchants' Chamber of Commerce, Calcutta. b. Sept. 2, 1928. Pres.: Assoc. of Company Secys., Executives and Advisers, 1967-68; nominated by the Central Govt. on the Central Council of Institute of Chartered Accountants of India, New Delhi; member: Research Cttee. & Professional Devpt. Cttee. of the Institute of Chartered Accountants of India; State Labour Advisory Board, West Bengal; Company Law Sub-Cttee., F.I.C.C. & I.; Taxation Cttee., Indian Chamber of Commerce; has participated in national and international conferences. Address: Kothari & Co., 71, Ganesh Ch. Avenue, Calcutta-13; 1/2, Harish Mukherjee Road, Calcutta.

KOTHARI, Daulat Singh, M.Sc. (Allahabad), Ph.D. (Cambridge), F.N.I., Chairman. Univ. Grants Commn., since Feb. 1961; Prof. of Physics, Delhi Univ., and Scientific Adv. to the Min. of Defence, Govt. of India; Chairman, Union Educ. Commn., since July 1964. b. 1906; Educ.: Udaipur, Indore, Allahabad and Cambridge. Joined the Min. of Defence, 1948; has been Pres., Indian Physical Soc.; is Vice-Pres., National Instt. of Scs. of India; Gen. Pres., Indian Sc. Cong. Golden Jubilee Session, 1963. Publications: Papers in Indian and foreign scientific journals on Statistical Thermodynamics. Theory of White Dwarf Stars, and other Physical and Astrophysical subjects; showed that atoms can be ionized (broken down) by the application of pressure alone; Nuclear Explosions and their Effects. Address: New Delhi.

KOTHARI. Dayanand Chandulal, M.A., (Madras), Business man, Share & Stockbroker & Industrialist; Vice-Chairman, Fertilizer Assocn. of India. b. Feb. 28, 1914; Educ.: Madras Christian Coll. Chairman.: Madras Advisory Cttee. of the Indian Standards Insttn; South Indian Sugar Mills Assoc., President, South Indian Sugar Technologists Assoc.; Vice Pres.: Indian Sugar Mills Assoc.; F.I.C.C.I., for 1969-70; Vice-Chairman, Indian Council of Foreign Trade; Cttee. member, F.I.C.C. & I.; Sheriff of Madras, 1955; was trustee, Madras Port Trust; was Pres.: All India Orgn. of Industrial Employers; United Planters Assoc. of India; Hindustan Chamber of Commerce, etc.; was member: Company Law Adv. Cttee.; Pres., F.I.C.C.I. for 1970-71; travelled extensively. Publications: Kothari's Economic Guide and Investors Handbook. Address: "Kothari House", 3, Kothari Road, Nungambakkam, Madras 34.

KOTHARI, Harshad Chandulal, Share, Stock Exchange Broker; Chairman: The Hindustan Photo Films Manufacturing Co. Ltd., Indunagar, Ooty; Vice-Chairman, Coffee Board. b. April 18, 1918; Educ.: Madras Christian Coll. Member: Coffee Board; Cttee., All India Orgn. of Industrial Employers; is Dir.: Investment & Fin. Corpn. Pvt. Ltd., Madras; Kothari Mehta & Co. Pvt. Ltd., and several others; was Sheriff of Madras; Pres.: Hindustan Chambers of Commerce; United Planters'

Assoc. of Southern India; travelled extensively in the Continent, States and Indonesia. Publications: Kothari's Economic Guide and Investors' Handbook of India. Address: Office: 'Kothari Buildings', 20, Nungambakkam High Road, Madras-34. Res.: 4-A.A., Nungambakkam High Road, Madras-34.

KOTHARI, Hemraj, B.Sc., D.W.P. (Lond.), A.C.C.G.I. (Lond.), etc., Chartered and Incorporated Engr., Journalist and Management Consultant; Founder-Editor, Who's Who in Indian Engineering Industry; Professional Engineer, the Director, etc.; Founder Pres., Inst. of Intn'l Affairs & Specialised Publications Cfce.; Convenor, First All-India Directors' Cfce.; First All-India Engineers' Cfce. and Specialised Publications Exhibition. b. Nov. 10, 1933, at Sujangarh; Educ. : Delhi, Calcutta, Darjeeling, London and Oslo. Partner, Kothari & Sons, Calcutta, since 1955; Founder-Proprietor, Kothari Org.; life Member: National Academy of Scs.; New York Academy of Scs.; Indian Sc. Cong.; Indian Inst. of Public Adm.; member: I.E.N.S.; Intn'l Chamber of Commerce — Exec. Cttee., F.I.C.C.I.; Indian Council of Arbitration; Pres.: International Commission on Advertising, etc.; has widely travelled in Europe and Middle East. Publications: Who's Who In Indian Science; Professional & Trade Organisations in India; Kothari's World of Reference Works; Who's Who in India, etc. Address: Office: 12, India Exchange Place, Calcutta 1; Home: Sujangarh-Rajasthan; 58, Upper Chitpore Road, Calcutta 7.

KOTHARI, S. S., M.P. (Lok Sabha), Member: Consultative Cttee. Min. of Finance, Govt of India; Public Undertakings Cttee. of Parliament; Convener, Study Group thereof on financial management in public undertakings; served on Select Cttees. of Parliament for Bills for social control of banking and insurance; Chartered Accountant; Senior Partner, S. S. Kothari & Co., Fellow and member: National Savings Central Adv. Board; Bd. of M.P. State Road Transport Corpn.; Flood Relief Work in M.P.; Governing Body, Calcutta Productivity Council; the Smoke Nuisances Commn. (1964-67) and Governing Body Goenka College of Commerce and Business Admn.; Exec. Cttee. Eastern Study Group, Calcutta (1966); Chairman: Employment Cttee.; Pres., Indian Economic Centre; Associate, Instt. of Taxation, London. Address: 144, North Avenue, New Delhi.

KOTVAL, Mr. Justice Sohrab Peshotan, B.A., LL.B., Chief Justice, High Court, Bombay, since July 31, 1966. b. Sept. 27, 1910; Educ.: Billimoria High School, Panchgani; Morris Coll., Nagpur; Univ. Coll. of Law, Nagpur; Prizes won: Sushila Vishnupant Jakatdar Elocution Prize of the Nagpur Univ.; K. S. Hussonji Gold Medal for debates. Lecturer in Jurisp. and Constl. Law, Univ. Coll. of Law, Nagpur (1939-46); member: Court of the Nagpur Univ. since 1935; Academic Council, Nagpur Univ. (1942-64); Dean, Faculty of Law and Megaber of Exec. Council, Nagpur Univ., 1956-64; Vice-Chancellor, Nagpur Univ. (1962-64); Advocate, C. P. & Berar and M.P. High Courts (1932-55); Judge, M.P. High Court, 1955-56; Judge, Bombay High Court, 1956-66; one-man Commission to inquire into the cases of Police firing in Ahmedabad, 1958; Acting Governor, Maharashtra, Nov. 11, 1969-Feb. 25, 1970. Address: "Shivneri", Powai Road, Off Mt. Pleasant Road, Malabar Hill, Bombay 6.

KOUJALGI, H. V., B.A., LL.B., Minister for Revenue, Mysore State, since May 29, 1968. b. at Saundatti, Belgaum Dist.; Educ.: Karnatak Coll. and Poona Law Coll. Was Pleader, Bailhongal Court; Pres., D.L.B., Belgaum, 1944-52; M.L.A.: Bombay, 1952-56; Mysore, 1957-62;

Member of Parliament, 1963-67; Chairman, Social Education Cttee. for Bombay-Karnatak Region, since 1948; elected M.L.A., Mysore from Parasgad, 1967; Pres., K.L.E. Society, Belgaum. Address: Vidhansoudha, Bangalore 1.

KRIPALANI, Acharya J. B., M.A. (History and Economics), M.P.; Director, Shri Gandhi Ashram, Village and Khadi Organisation, U.P., Delhi. b. 1888; Educ.: M.A., 1912. General Secretary of Indian National Congress, 1934-46; elected Pres., Indian National Congress, Oct. 1946; resigned Nov. 1947; joined Mahatma Gandhi in Champaran Satyagraha, 1917; Private Secretary to Pandit Madan Mohan Malaviya, 1918; organised Gandhi Ashram; started Khadi and Village work, 1920, through the Gandhi Ashram, Banaras: courted jail in freedom movement several times; Member, Constituent Assembly of India, 1946-51; formed the Congress Democratic Front, 1951; resigned from Congress and formed Kisan Mazdoor Praja Party, 1951; merged K.M.P.P. with the Socialist Party, Oct. 1951; was Chairman, P.S.P. till Dec. 1954; elected to Lok Sabha, 1952, 1957, 1963 & 1967. Publications: The Gandhian Thought, The Indian National Congress, The Future of the Congress, Where are we going, Current Affairs and several others. Address: Shri Gandhi Ashram, Lucknow.

KRIPALANI, Smt. Sucheta, M.A. (Delhi Univ.), Ex-Chief Min., Uttar Pradesh, M.P. (Lok Sabha). b. 1908; Educ.: Lahore and Delhi. Imprisoned in connection with the freedom struggle; appointed Organising Secy., Kasturba Memorial Trust, 1945; elected member, Constituent Assembly, 1946; subsequently elected M.P.; Member, Cong. Wkg. Cttee. (National Exec.), 1948-51; resigned from the Cong., June 1951; was member, National Exec. of the Kisan Mazdoor Praja Party; was elected member, National Exec., P.S.P.; elected to Lok Sabha in 1952 and 1957; rejoined the Cong.; Gen. Secy., Indian National Cong., 1958-60; re-elected M.L.A., U.P., 1962; Min. for Labour, U.P., 1960-63; Chief Minister, U.P., 1963-67; returned to Parliament from Gonda Constituency, U.P., Feb. 1967. Address: 11, Gautam Palli, Lucknow.

KRISHNA, Kanwal, Painter; Head of the Art Deptt., Modern School, New Delhi, since June 1953. b. Jan. 3, 1910 in Montgomery, West Punjab; Educ.: Lahore; Engg. Coll., Banaras; School of Art, Calcutta. Three of his new experiments on the technique in etching and engraving were exhibited in the Intn'l. Graphic Art Exhibition, Switzerland, 1958; awarded Governor's Gold Medal for experiments in Graphic Art, 1961; held exhibitions of his graphics in several countries; participated in the Intn'l exhibition of graphics in Yugoslavia and Austria, 1963; in the Intn'l biannale exhibition of art at Sao Paulo in Brazil and won an award, 1963. Publications: Contributed several articles to imp. journals in India and abroad. Address: Head, Art Department, Modern School, New Delhi.

KRISHNAMACHARI, Tiruvallur Thattai, Ex-Min. for Fin., Govt. of India; Ex-Member, Plng. Commn. b. Nov. 26, 1899; Educ.: Madras Christian Coll., Madras. Entered business, 1921; elected M.L.A., Madras, 1937; elected to the Central Assembly, 1942; elected member, Constituent Assembly of India, 1946; member, Drafting Cttee., Indian Constitution; Min. for Commerce and Industry, Govt. of India, 1952-56; Min. for Iron and Steel 1955-57; Union Fin. Min., 1956-58; resigned, Feb. 14, 1958; elected unopposed to Lok Sabha, 1962; Union Min. without portfolio, June 8 to Nov. 14, 1962; Union Min. for: Eco. & Defence Coordination,

1962-63; Fin., 1963-65; resigned from the cabinet, Dec. 31, 1965; has extensively travelled abroad; attended the Commonwealth Prime Ministers' Cfee. in London, July 1964; attended the meeting of the World Bank and the L.M.F., Aug. 1964. Address: Tambaram (East), Madras 59.

KRISHNAN, Vice-Admiral N., Param Vishisht Seva Medal (1970), Flag Officer Commanding-in-Chief, Western Naval Command, since Feb. 25, 1970. Joined the 'Dufferin', 1935 and the Indian Navy, 1938; was on active duty in ships of the Royal Navy during World War II; saw active service in the Indian Ocean area 1941–44; awarded Distinguished Service Cross; Director of Naval Plans, 1948–50; was in command of the cruiser INS 'Delhi' during the surrender of Diu; commanded INS 'Vikrant', 1963–64; was Director of Personnel Services at Naval Hqrs. and Dy. Secy. (Military) to the Cabinet; graduated from the Imperial Defence Coll., London, 1965; was Naval Adviser to the Indian High Commissioner in London, Asstt. Chief of the Naval Staff; Vice-Chief of the Naval Staff, 1967–70. Address: C/o Fleet Mail Office, Bombay I.

KRISHNAN, Ramanathan, M.A., Padma Bhushan (1967), Helms World Trophy for the Foremost sportsman from Asia of 1966, a leading tennis player; Gen. Mgr., Madras Cylinder Gas Co. b. April 11, 1937; Educ.: Loyolla Coll., Madras. National Lawn Tennis Champion of India, 1954, 1957, 1959, 1960, 1961, 1963, 1964 & 1965. Wimbledon Junior Lawn Tennis Champion, 1954. Won the London Grass Court Championship, & the American Hard Court Championship, 1959; won the Lawn Tennis Championship of Asia, 1959, 1963, 1964 & 1965; was the first Indian to enter semi-finals at Wimbledon, 1960 & 1961; has played for India in the Davis Cup since 1953; ranked as India's No. 1, 1953-66. Address: 'Ram Nivas,' 37, Thiruvenkatam Street, Raja Annamalaipuram Post, Madras 28.

KULKARNI, S. R., President, All-India Port & Dock Workers' Federation. b. March 25, 1928; Educ.: Bombay. Has been connected with the dockers' movement for the last 27 years; is associated with a number of other trade union organisations. Address: Block No. 58, Chanchal Smriti, Katrak Road, Wadala, Bombay 31.

KULKARNI, Waman Laxman, M.A., B.T., Marathi Writer; Senior Prof. & Head of the Deptt. of Marathi, Marathwada Univ., since 1950; Editor, Pratishtan. b. April 6, 1911; Educ.: Govt. High School, Nasik; Wilson Coll., Bombay; won the Chiplunkar Marathi prize. Elected Pres., 43rd AIMSS, Hyderabad, 1965; Prof. and Head of the Dept. of Marathi, Wilson Coll., Bombay, 1944-59; was member: State Board of Literature & Culture, Maharashtra; member, State Book Selection Cttee.; Consultant, State Text Book Cttee. Publications: Woman Malhar; Wangmaya-Darshan; Wangmayatil Wadasthale; Wangmayeen Mate ani Matabhed; Shripad Krishna: Sahitya ani Sameeksha; Natakkar Khadilkar: Marathi Dnanaprasarak Itihasa ani Wangmaya-Vichara, etc. Address: Marathi Dept., Marathwada University, Aurangabad (Dn.).

KUMAR, Naresh, B.Com., Arjuna Award (1962), a leading tennis player; Business man. b. Dec. 22, 1928; Educ.: St. Xavier's Coll., Calcutta; Govt. Coll., Lahore. National Junior Tennis Champion, 1945, 1946; ranked India's No. 1, 1951-52; member of Indian Davis Cup Team, 1952-53-54-55-56-57-58-59-60-61; Captain, Indian Davis Cup Team, 1955-56-57-58-59-60; winner of several Championships; ranked India's No. 2, 1955-56, 1958-59; reached mixed doubles quarter-finals at Wimbledon with Miss E. Buding (Germany), 1957; reached men's doubles

quarter-finals with R. Krishnan, Wimbledon, 1958; won doubles championships of Moscow with A. Huber (Austria), 1957; Asian Doubles Champion with Krishnan, 1962-63 & 1963-64. Address: 15, Shakespeare Sarani, Calcutta 16.

KUMARAMANGALAM, Jayvant Gopal, B.A., Managing Director, Neyveli Lignite Corporation Ltd., since Aug. 1967. b. May 11, 1915; Educ.: Oxford Univ. Deputy Secy. to the Govt. of India, 1957-59; Deputy General Manager, National Coal Development Corporation, Ranchi, 1959-65; General Manager, Bailadilla Iron Ore Project under the National Mineral Development Corporation Ltd., 1965-67. Address: Managing Director, Neyveli Lignite Corporation Ltd., Neyveli-1.

KUMARAYYA, Mr. Justice Nampally, B.A., LL.B., H.C.S., Chief Justice of Andhra Pradesh, since Aug. 1, 1969. b. June 15, 1909; Educ.: Osmania Univ., Hyderabad. Munsif-Magistrate, 1935-43; Addl. Dist. Magistrate, 1943-46; Dist. Magistrate, 1946-48; Divl. & Sessions Judge, 1948-49; Principal Judge, City Civil Court, 1949-55; Pres., Industrial Tribunal, Hyderabad, 1949 and 1950; Special Judge to try 'Laik Ali Escape Case' and 'Ex-Ministers Case', 1950-51; was Chairman, Agricultural Income-tax Tribunal; Chairman: Election Tribunal; Wage Board; Advisory Board constituted under Public Security Measures; member, Advisory Board constituted under the P.D.A.; appointed Judge, Hyderabad High Court, 1955; officiated as Chief Justice, A. P. High Court, June-July 1969. Address: 'Kamal Nivas', 14/A, Marredpalli East, Secunderabad 26.

KUMARMANGALAM, Surendra Mohan, B.A. (Cantab), Bar-at-Law, Chairman, Indian Airlines, since Aug. 1969; Senior Advocate, Supreme Court of India. b. Nov. 1, 1916; Educ.: Eton and King's Coll., Cambridge; Pres., Cambridge Union, 1938; called to the Bar from Inner Temple, 1939. Enrolled as Advocate, Madras High Court, 1940; imprisoned on charges of conspiracy to overthrow the British Govt., 1941-42; Asstt. Editor, Peoples War, a weekly in Bombay, 1943-48; started practice Madras High Court, 1951; Advocate-General, Madras, July 1966; resigned, April 1967; Member: Indian Airlines and Air India Boards, since 1967; Industrial Licensing Cttee., 1967; was member, Parliamentary Cttee on defections; has been actively associated with trade unions; was Pres. of several workers' unions; Director, Bennett, Coleman & Co., Ltd., Bombay, 1969-70. Publications: Spollight on Iran, 1946; The Language Crisis, 1964. Address: B-5/17, Safdarjang Extension, New Delhi 16.

KUNDU, Dr. B. C., M.A., Ph.D. (Leeds), F.L.S., F.B.S., F.N.I., Research Prof. since July 1967; Jt. Dir., Bose Research Instt., Calcutta since 1965; President, Patipukur Siksha Samsad. b. April 1905; Educ.: Calcutta Univ., Calcutta; Leeds Univ., England; Sir Rash Behari Ghosh Research Scholar, Calcutta Univ., 1928-30. Dir., Jute Agri. Res. Instt., 1946-60; Pres., Botany Sec., Indian Sc. Cong., Hyderabad Session, 1954; Bengal Botanical Soc., since 1957; Vice-Pres., Bangiya Vijnan Parishad; member: Council, National Inst. of Scs. of India, since 1958; Cttee., Indian Sc. News Assoc.: Head of the Dvn. of Botany, Central Drug Research Instt., Lucknow, 1960-65. Has toured S. & C. American & North American countries. Publications: Several text books on botany and biology; Jute in India—a monograph: monograph on Indian Charophyta: about 150 papers on Plant Anatomy, Plant Breeding, Systematic Botany, Medicinal Plants, etc. Address: 332, Lake Town, Calcutta 55.

KUNZRU, Pandit Hriday Nath, B.A., B.Sc., LL.D. (Hon.), Pres., Servants of India Soc., since 1936. b. 1887; Educ.: Allahabad Univ.; London School of Economics. Joined the Servants of India Soc., 1909; M.L.C., U.P., 1921-23; member: Indian Leg. Assembly, 1927-30; Pres.: East African Nat. Cong., 1929; National Liberal Federation; 1934; Indian Const. Assembly and Prov. Parliament 1946-52; Armed Forces Reorganisation Cttee., 1946-47; States Reorg. Commn.; Rajya Sabha, 1952-62; U.G.C., 1953-66; Exec. Councils of Delhi Univ. till 1968 and B.H.U., till 1967; Council of State, 1937-46; Leader, Indian Delegation to: South Africa, 1950; Inter-Parliamentary Union, 1956-61; Pres.: Indian Council of World Affairs, since 1948; Indian School of International Studies, since 1955; Anjuman-e-Tarraquie-e-Urdu, India; Gen. Secy., All India Seva Samiti; National Commr., Bharat Scouts and Guides, 1950-57 and 1961-63; Vice-Pres., Univ. Film Council and Bharatiya Adimjati Sevak Sangh; Chairman, Cttee. on Rlys. (Adm. Reform Commn.), 1967. Address: Sapru House, Barakhamba Road, New Delhi 1.

KURUP, G. Sankara, Jnanpith Award for his book Odakuzhal (1965), Padma Bhushan (1968), M.P. (Rajya Sabha), Malayalam Writer; Member: National Book Trust of India (nominated); Sahitya Akademi General Council; Hon. member, P.E.N. (India). b. June 1901; Educ.: Privately. Joined service as teacher, 1921; was Malayalam Prof., Maharaja's Coll., Ernakulam; Sahitya Akademi Award for the collection of poems 'Viswadarsanam' in 1963; Soviet Land Nehru Award, 1967. Visited U.S.S.R. and G.D.R. invited by Writers' Unions. Publications: Poems: Sahitya Kautukum; Viswadarsanam; Odakkuzhal; Muthukal; Ithalukal; Antardaham; Jeevana Sangeeta, etc. Translations: Meghachaya; Megha Dutha; Vilaslahari; Omar Khayyam, Gitanjali and Ekotharasathi from Bengali; One Act Plays: Irruttinumunpu; Sandhya, etc.; Prose: Gadyopaharam; G. Yute Notebook; Muthum Chippiyum; Children's poems: Ilamchundukal. Address: Bhadralayam, Ernakulam I.

KURUP, Thakazhi Poyippilli Kalathil Kunju, Padma Shri (1965), Kalathilakam by the Zamorin of Kozhikode, Kathakali Natyaachariyan. b. March 20, 1880; Educ.: About 12 years at Thakazhi, under Chabakkulam Sanku Pillai and another 12 years under M. M. J. Namboodiripad. Is a leading Kathakali dancer in India; worked with late Poet Mahakavi Vallathol; got appreciation from Tagore, Nehru, Prithviraj Kapoor; prominent disciples—Ramgopal, Mrinalini Sara Bai, Gopinath, Tara Chowdiri, Ananda Sivaram, Kalamandalam Madhavan, Kalamandalam Krishnan, Santa Rae, Hari. Address: Lakshmi Vilas, P.O. Kottayi, (via) Palghat.

LAHIRI, Dr. Adinath, M.Sc., Ph.D. (Lond.), D.I.C., F. Inst. Fuel. F. Inst. Pet., F.R.I.C., M.I.E., F.N.I., Padma Shri (1960), Padma Bhushan (1969), Dir., Central Fuel Research Institute of India, since April 1954. b. Aug. 24, 1916; Educ.: Presidency Coll., Calcutal, Imperial Coll. of Sc. and Tech. (Lond.). Conducted research at Royal Coll. of Sc., 1938-42; Senior Scientific Officer, Royal Aircraft Estab., Farnborough, U.K., 1942-45; member: Council of Instt. of Engrs. India; Commonwealth Fuel Research Cttee. (1963-66); Chairman: Instt. of Fuel (U.K.) in India; formerly Dir.: Board of Durgapur Projects Ltd. (W. Bengal); Board of National Coal Devpt. Corpn. Ltd. Publications: Over 400 Research papers on various aspects of Fuel Technology and in Geochemistry, Physical Chemistry, Geology, etc. Address: Central Fuel Research Institute, P.O.F.R.I., Dhanbad Dist., Bihar.

LAKDAWALA, Dr. Dhansukhlal Tulsidas, M.A., LL.B., Ph.D., Director, Sardar Patel Instt. of Eco. & Soc. Research, Ahmedabad; Member, 5th Finance Commission; Expert in Public Finance and International Economies. b. Oct. 4, 1916; Educ.: Bombay. Consultant at ECAFE to the Economic Survey Branch, 1962; Hon. Secy. & Treasurer, Indian Economic Assoc.; Pres., Indian Economic Assoc., 1964; Chairman, Cost of Living Index Cttee., Govt. of Maharashtra; has worked as member and Chairman of several other Cttees, appointed by Central & State Govts.; Editor, Indian Economic Journal; Dadabhoy Naoroji Award twice for work in the field of Economics. Publications: Books: Taxation & the Plan: Small Industry in a Big City; Work, Wages and Well-being in a Metropolitan City (Jointly); Union-State Financial Relations, etc. Address: Deptt. of Economics, Univ. of Bombay, Bombay.

LAKSHMANAN, Major-General Cheruvari Kottieth, L.M.S. (Mad.), M.R.C.S. (Lond.), D.T.M. & H. (Lond.), D.P.H. (Eng.), Padma Bhushan (1967), Chairman, Governing Body, Vallabhbhai Patel Chest Inst.; Vice-Chairman, T.B. Assocn. of India. b. April 5, 1898; Educ.: Madras Christian Coll.; Madras Medical Coll.; St. Barthalomew Medical Coll. and Hospital, London. In the I.M.S., 1925-47; Dir., All-India Instt. of Hygiene & Public Health, Calcutta; Spl. Consultant to U.N.I.C.E.F. to assess child health needs in South East Asia; member, Indian Delegation to World Health Assembly at Geneva, 1950, 1954, 1957 and Mexico, 1955; Delegate to the Sessions of W.H.O. Regional Cttee. for S. E. Asia held in Ceylon, 1950, Rangoon, 1951, Bandung (Indonesia), 1952 and New Delhi, 1954; Dir. Genl. of Health Services, Govt. of India, 1952-58; Secy.-Genl., Indian Red Cross Soc.; Hon. Secy., Hindi Kusht Nivaran Sangh, 1959-69. Address: B. 47, Defence Col., New Delhi 3.

LAKSHMIKANTHAM, Pingali, M.A. (Madras), D. Litt. (Hon.), S. V. Univ., 1970, Telugu Writer. b. Jan. 10, 1894; Educ.: Hindu High School, & Noble Coll., Masulipatam. Research Fellow, Madras Univ.; Head, Deptt. of Telugu, Andhra Univ.; member, Gen. Council, National Academy of Letters; elected member, Exec. Board of the Academy; Literary Producer, A.I.R., Vijayawada. Publications: Poetry Tolakari (Lyric) and Soundaranandam (Epic) (in collaboration with Katuri Venkateswararao). Prose: Gouthama Vyasamulu (Essays); Goutama Nighantu (English-Telugu Dictionary); Samskrita Kumara Vyakaranam; Palanati Veera Charitra; Madhura Pandita Rajam (Poetry); Sahitya Silpa Sameeksha. Address: Jagannathapuram, Tirupati (A.P.).

LAL, Avadh Behari, M.A. (Math.), M.A. (Pol. Sc.), Vice-Chancellor, Allahabad University, since 1968. b. Oct. 7, 1910; Educ.: Govt. High School, Kanpur; Christ Church Coll., Kanpur; Allahabad Univ. Jr. Lecturer in Political Science, 1935; Lecturer, 1940; Reader, 1952; Professor, 1958; Dean, Faculty of Arts, 1963; was Univ. Librarian; was member: Standards Cttee. of the U.G.C.; Managing Cttee., Allahabad Public Library, etc. Publications: Edited a book on the Indian Parliament. Address: Vice-Chancellor, Allahabad University, Allahabad.

LAL, Muni, M.A. (Philosophy), Amb. to the Republic of Somalia since Feb. 16, 1969. b. Jan. 11, 1913; Educ.: Punjab Univ. Joined the I.F.S., 1947; served in Pakistan, Australia, U.S.A., Indonesia, U.K., Trinidad and Tobago; was Dir., Indian Information Service, London and Washington; Dir., Min. of Ext. Affairs, 1961; High Commr. of India to Trinidad and Tobago, Jamaica and Barbados, 1964-68; represented: Northern India in the Cricket Cham-

pionship of India for the Ranji Trophy, 1932-47; his State against all foreign visiting teams, 1932-47; captained the Punjab Univ., 1935; Vice-Captain, Northern India Cricket Assoc. team, 1936-37. Publications: Schopenhaur Seige of Frankfurt. Address: Embassy of India, P.B. No. 955, Mogadishu (Somalia), East Africa.

LAL, Air Chief Marshal P. C., D.F.C., Padma Bhushan, Chief of the Air Staff, Indian Air Force, since July 16, 1969. b. Dec. 6, 1916, at Ludhiana; Educ.: Delhi; King's Coll., London; obtained amateur pilot's licence, 1934. Commissioned in the I.A.F., Nov. 1939; assumed command of No. 7 squadron, June 1944; mentioned in despatches and awarded D.F.C. for his part in the Burma operations, 1944 & 1945; held several senior apptts. including those of Dir. of Plans at Air Hqrs., Dy. Secy. (Military) to the Cabinet and A.O.C. Trig. Command; was a member of several Govt. Missions abroad; Gen. Mgr., I.A.C., 1957-62; was concurrently member, Board of Dirs., IAC and Air India; was Air Officer incharge of Maintenance at Air Hq., A.O.C.-in-C., Western Air Command, Vice Chief, Air Staff till Sept. 1966; Mg. Dir., Hindustan Aeronautics Ltd., 1966-68; Chairman, HAL, Jan. 1969. Address: Air Headquarters, New Delhi.

LALBHAI, Kasturbhai, Padma Bhushan (1969), Industrialist and Banker; Director of 20 concerns, such as Textile, Insurance, Electricity, Steamship etc.; All India Council for Technical Educ. from 1955; Planning Cttee., W. Region, Govt. of India from 1955; Chairman, Governing Body of Ahmedabad Educ. Society. b. Dec. 19, 1894; Educ. : Govt. R. C. High School and Gujarat Coll., Ahmedabad. Pres.: Ahmedabad Millowners' Assoc., 1933-35; F.I.C.C.I., 1934-35; Council of Adm. of the Ahmedabad Textile Industry's Research Assoc. since 1947; Chairman, West Coast Kandla Port Devpt. Cttee., since 1948; Member: C.S.I.R. Board and Governing Body from 1940; Senate, Gujarat Univ. from 1950; Leader and Pres., Jain Community in India; Leader of the Indian Delegation, Industrial and Agricultural Delegation to the U.S.S.R., 1954; Dir., Reserve Bank of India, 1937-49 and 1957-60; Chairman: I.I.T., 1955-65; Gujarat Flood Relief Cttee.; Governing Trustee, Kasturba Gandhi National Memorial Trust, 1957 and Gandhi Smarak Nidhi; Trustee: Jawaharlal Nehru Memorial Fund, 1964; member, Direct Taxes Advisory Committee, Govt. of India, 1967. Address: Pankore's Naka, Ahmedabad; Shahibag, Ahmedabad.

LALCHAND HIRACHAND, B.A., Industrialist; Chairman: The Premier Automobiles Ltd.; Indian Hume Pipe Co., Ltd.; Bombay Cycle and Motor Agency Ltd., etc.; Dir.: The Premier Construction Co. Ltd., Walchandnagar Industries Ltd., Cooper Engg. Ltd., etc.; Pres.: Indian Merchants Chamber, 1959; Maharashtra Chamber of Commerce, 1960-64; The Automotive Manufacturers' Assoc. of India, 1954-59; Assoc. of Indian Automobile Mfrs., 1960-61; member: Bombay Leg. Council, 1939; Rajya Sabha, 1952-58; was member: Import Advisory Council of the Govt. of India; is Pres., Swatantra Party, Bombay Region. Address: Office: Construction House, Ballard Estate, Bombay 1; Residence: Neela House, Pedder Road, Bombay 26.

LALL, Krishen Behari, I.C.S., Secretary, Foreign Trade, Min. of Foreign Trade & Supply, Govt. of India and Vice-Chairman, Indian Institute of Foreign Trade, since July 1966. b. 1915; Educ.: Delhi & London; Univ. Coll., Oxford. Joined I.C.S., 1937; held important posts in

the Govt. of India, Min. of Commerce, Partition Secretariat and Min. of States; Chief Secy., Madhya Bharat; till he became Addl. Secy., 1959; Special Secy., Min. of Finance, 1961; Chairman: Foreign Trade Board, 1957-60; S.T.C., 1956-59; Dir., National Ind. Devpt. Corpn., 1960-62; Amb. to Belgium and for Economic Affairs for all West European countries, 1962-66; Chairman, Gatt., 1966-67; leader of important delegations to foreign countries like U.S.S.R., Poland, etc.; Dy. Leader, Indian delegation to UNCTAD, 1968; leader, Indo-Iranian Economic Co-operation talks, May 1969; Principal Consultant to ECAFE on Asian Econ. Cooperation. Address: 7, Tughlak Road, New Delhi 11.

LAMRANI, H.E. Mr. Abdellah, Ambassador, Extraordinary and Plenipotentiary of Morocco in India. b. Oct. 13, 1928; Educ. : Faculty of Law and Institute of Political Studies, Paris. Practised Law at Casablanca Bar. 1952-56; Director of the Cabinet to the Minister of Information, Morocco, 1956; Consul for Morocco at Paris; Charge d'Affaires, Morocco Embassy, Paris; Charge d'Affaires en pied, Embassy of the Kingdom of Morocco to the Benelux Countries; Director of Cabinet of Minister of Foreign Affairs (1959-61); nominated Minister Plenipotentiary, April 1960; Director, Law Division, Ministry of Foreign Affairs; Ambassador of Morocco in Ivory Coast (1962-64); Ambassador-incharge, Central Administration; Director of Europe Division, Moroccan Foreign Office; awarded the Decoration of Officer of Order of Throne. Address: Office: Embassy of Moroccan Kingdom, 199, Jor Bagh, New Delhi-3; Residence: 47, Golf Links. New Delhi 3.

LEMIEUX, His Excellency the Most Reverend Marie-Joseph, Apostolic Pro-Nuncio in India, since 1969. b. May 10, 1902; Educ.: Laval Univ., Quebec; Dominican House of Studies, Ottawa; Angelicum Univ., Rome; Oxford, England; Faculties Catholiques, Lille, France. Roman Catholic Priest, pertaining to the Dominican Order, April 15, 1928; Missionary Priest in Japan, 1930–36; Bishop of Sendai, 1936–41; Gravelbourg, Canada, 1942–53; Archbishop of Ottawa, Canada, 1953–66; Apostolic Nuncio in Haiti, 1966–69. Address: Apostolic Nunciature, Niti Marg, New Delhi 21.

LENDRUM, H.E. Mr. Brian Sydney, M.A., Ll.B., High Commissioner of New Zealand in New Delhi. b. March 27, 1921 at Auckland; Educ.: Auckland Grammar School; Auckland Univ.; Victoria Univ., Wellington. Served with the New Zealand forces, during the Second World War; held various positions in the Deptt. of External Affairs at Wellington and abroad (Ottawa, Bangkok, Singapore, Kuala Lumpur), since 1947; Counsellor and Dy. High Commr. of New Zealand in New Delhi, 1966-67; Ag. High Commr. in New Delhi, 1967-68; represented New Zealand at a number of International Conferences, including meetings of the United Nations Economic & Social Council (1948-51), South Pacific Air Transport Council (1956) and Seato Council (1957 and 1958). Address: 39, Golf Links, New Delhi 3.

LINDT, H.E. Dr. August R., Ambassador of Switzerland to India, since 1969. b. Aug. 5, 1905; Educ.: Berne and Geneva, Switzerland. Special Correspondent for various Swiss and foreign newspapers in Manchuria, Liberia, Palestine, Jordan, Persian Gulf, Tunisia, Rumania and Finland; Head, Inf. Service, Army Gen. Staff, 1940–45; Permanent Observer for Switzerland to the U.N. in New York, 1953–56; Pres.: Exec. Council, UNICEF, 1953–54; Opium Confee., U.N., 1953; Head, Swiss delegation, Diplomatic Confee. on the status of the International

Agency for Atomic Energy, 1956; High Commissioner, U.N. for Refugees, 1956-60; Ambassador of Switzerland in: Washington, 1960-63; Moscow, 1966-69; General Commissioner, International Cttee. of the Red Cross for West Africa, 1968-69. Address: Embassy of Switzerland, Nyaya Marg, Chanakyapuri, New Delhi 21.

LOKANATHAN, Dr. Palamadai S., (Madras), D.Sc. (Econ.), London, the Most Noble Order of the Crown of Thailand, First Class, Fellow, London School of Economics, Lond. Univ., visiting Prof., Delhi Univ., Ex-Dir.-Genl., National Council of Applied Economic Research; Ex-Chairman, National Productivity Council. b. Oct. 10, 1894; Educ.: St. Joseph's Coll., Madras Univ., London School of Economics, Univ. of London. Editor, Eastern Economist, 1943-47; Exec. Secy., ECAFE, Bangkok, 1947-56; Chairman: Advisory Board, Demographic Research and Trg. Centre; Export Incentives Cttee., Bd. of Trade; All India Board of Tech. Studies in Commerce, etc.; Vice-Pres.; Indian Council of World Affairs; member: Court of Governors, Adm. Staff Coll. of India, Hyderabad; Export-Import Advisory Council, Govt. of India; Adv. Cttee. on Economic Policy, Planning Commn.; Indian Instt. of Management, Calcutta; Bd. of Governors, Indian School of Intn'l Studies. Publications: Industrial Welfare in India; Industrial Organisation in India; Indian Industry; The Supply of Entrepreneurs & Technologists; Indian Economic System; Report on Taxation in Orissa, etc. Address: 62, Srinagar Colony, Saidapet, Madras-15.

MADAN, Dr. Bal Krishna, M.A., Ph.D., Executive Director representing India, Board of the I.M.F., since Feb. 1967. b. July 13, 1911; Educ.: Univ. of Punjab. Dir. of Research, R.B.I., Bombay, 1941-45; Secy., Indian Delegation to Intn'l Monetary Confee., Brettonwoods; Exec. Dir., I.M.F., 1948-50; Economic Adviser to R.B.I., 1950; member: Finance Commn., Indian Govt., 1952; U. N. Experts Group on Sunfed, 1955; Principal Adviser, R.B.I., 1957-59; Dir., Ind. Fin. Corpn. of India, 1959-64; member: Governing Body of Indian Investment Centre, 1960-67; Exec. Dir., R.B.I., 1959-64; Dy. Governor, the Reserve Bank of India and Vice-Chairman, Ind. Dev. Bank of India, 1964-67. Publications: India and Imperial Preference — A Study in Commercial Policy, 1939; Aspects of Economic Development and Policy, 1964. Address: International Monetary Fund, Washington, D.C.

MADGULKAR, Vyankatesh Digambar, Marathi Writer; Producer, Rural and Farm Forum Programmes, A.I.R., Poona. b. July 7, 1927; Educ.: Atpadi (South Satara). Published his first book, 1949; was awarded first prize thrice by the State for best books; his novel Banagarwadi has been translated into English entitled The Village had no Walls, Hindi and Gurumukhi. Many of his short stories have been translated into Hindi, Gujarati, etc. Publications: Mandeshi Manse; Gavakadchya Gosti; Bangarwadi, etc.; stories and screen-pays for over a dozen Marathi pictures and a few folk plays staged in villages of Maharashtra. Address: Akshar, 110/10, Erandvana, Poona 4.

MADHAVAN, S., B.Com., B.L., Minister for Industry, Govt. of Tamil Nadu. b. Oct. 3, 1933; Educ.: Gurukulam, Amravathipudur; Bishop Heber High School, Thiruchirappalli; Alagappa Chettiar Coll., Karaikudi; Thiagaraja Coll., Madurai; Law Coll., Madras. Practised law at Sivaganga; elected M.L.A., Tamil Nadu from Tirukoshtiyur, 1962 and from Thirupathur, 1967; is a social worker. Address: "Poompozhil", Greenways Road, Adyar, Madras-20.

MAFATLAL, Arvind Navinchandra, Industrialist; J.P., Chairman, Mafatlal Group of Companies, Bombay. b. Oct. 27, 1923; Educ.: St. Xavier's High School and Sydenham Coll. of Commerce, Bombay. Director: Tata Iron & Steel Co. Ltd., National Organic Chemical Industries Ltd., Bombay Burmah Trading Corporation Ltd., National Rayon Corporation Ltd., etc.; Member: Central Board, Reserve Bank of India; National Credit Council; Central Board of Industrial Development Bank of India; Chairman, Exec. Council, National Chemical Laboratory, Poona; Advisory Council for Industries, Govts. of Maharashtra and Gujarat; Governing Council, Administrative Staff Coll. of India; etc. Address: Mafatlal House, Backbay Reclamation, Bombay 20.

MAFATLAL, Hemant Bhagubhai, B.A., Industrialist. b. July 4, 1935; Educ.: St. Xavier's High School and St. Xavier's Coll., Bombay. Chairman: Textile Engravers Ltd.; Pres.: Mafatlal Fine Spg. & Mfg. Co. Ltd.; Director: Mafatlal Group of Companies, National Organic Chemical Industries Ltd., Hoechst Dyes & Chemicals Ltd., Rajesh Textile Mills Ltd., Mafatlal Ltd. (London), Newbridge Industries Ltd. (Ireland), Cotton Textiles Export Promotion Council, etc. Address: Mafatlal House, Backbay Reclamation, Bombay-20.

MAFATIAI, Rasesh Navinchandra, B.A. (Hons.), Industrialist. b. March 6, 1934; Educ.: St. Xavier's High School and St. Xavier's Coll., Bombay. Director: Mafatlal Group of Companies, National Organic Chemical Industries Ltd., Hoechst Dyes & Chemicals Ltd., Ahmedabad Jupiter Spg., Wvg. & Mfg. Co. Ltd., Century Spg. & Mfg. Co. Ltd., Hindustan Motors Ltd., Statesman Ltd., Mafatlal Ltd. (London), Newbridge Industries Ltd. (Ireland), Campbell & Walker Ltd. (Ireland), etc.; Member: Indian Cotton Mills' Federation, Bombay Chamber of Commerce & Industry, Ahmedabad Education Society. Address: Mafatlal House, Backbay Reclamation, Bombay 20.

MAFATLAL, Yogindra Navinchandra, Industrialist. b. Jan. 22, 1925; Educ.: St. Xavier's High School and Elphinstone Coll., Bombay. 'Chairman: Tak Machinery Ltd., Commerce (1935) Ltd., and Cellulose Products of India Ltd. Director: Mafatlal Group of Companies, National Organic Chemical Industries Ltd., Hoechst Dyes & Chemicals Ltd., Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd., Mahindra & Mahindra Ltd., Mafatlal Ag (Switzerland), Newbridge Industries Ltd. (Ireland) and Gujarat Industrial Investment Corporation Ltd., etc. Address: Mafatlal House, Backbay Reclamation, Bombay-20.

MAHAJANI, Dr. Ganesh Sakharam, B.A. (Bom.), M.A. (Cantab.), Ph.D. (Cantab.), Smith's Prizeman (1926), Vice-Chancellor, Udaipur Univ., since Nov. 1963; Life-member, Deccan Educ. Society, Poona, b. Nov. 27, 1898; Educ.: High School, Satara, Fergusson Coll., Poona, St. John's Coll., Cambridge; Duke of Edinburgh Fellow. Foundation Fellow of the Indian Academy of Sciences, Bangalore, and of the National Instt. of Science, Calcutta. Frincipal and Prof., Fergusson Coll., Poona, 1929-45; Vice-Chancellor: Rajputana Univ., 1947-53; Delhi Univ., 1953-57; member, U.P.S.C., 1957-63. Publications: An Introduction to Pure Solid Geometry, politica pamphlets, e.g. The Liberal Outlook, Liberals and the Congress, Education and Democracy and The Defence Problem of India and several others. Address: Udaipur University, Udaipur.

MAHALANOBIS, Prof. Prasanta Chandra, M.A. (Cantab.), F.R.S., Hon. D.Sc. (Cal. Univ.), 1957, Hon. Deshikottam (Visva-Bharati), 1961, Hon. D.Sc. (Sofia State Univ.), 1961, (Delhi Univ.), 1964, Padma

Vibhushan, 1968, Hon. Statistical Adv. to the Cabinet. since 1949; Hony. Secy. and Hony. Dir., Indian Statistical Instt., Calcutta, since 1931. b. June 29, 1893, at Calcutta; Educ.: Presidency Coll., Calcutta Univ., Cambridge Univ., Weldon Medal and Prize, Oxford Univ., 1944; Sir Debaprasad Sarbadhikari Gold Medal, Cal. Univ., 1957 and many other medals; Chairman: U.N. Statistical Commn., 1954-58; Founder-Editor, "Sankhya", the Indian Journal of Statistics, since 1933; lectures and scientific tours in many countries; also delegate to international Cfcs. and representative at meetings and on commissions, from 1946. Publications: Talks on Planning, 1961; Experiments in Statistical Sampling in the Indian Statistical Institute, 1961; An Approach of Operational Research to Planning in India, 1963; several publications on statistical subjects.

Address: 204, Barrackpore Trunk Road, Calcutta 35; 8, King George Avenue, New Delhi 11.

MAHARAJ, Birju, President's Academy Award (1964), Dir., Kathak Ballet Deptt., Bharatiya Kala Kendra, New Delhi; Dancer. b. 1937; Educ.: Vidyant Coll., Lucknow. Started learning dancing at the age of five from his father, late Achchan Maharaj; gave his first performance at the age of seven at Jubilee Talkies, Delhi; Teacher, Sangit Bharati, New Delhi, 1952; has danced in almost all places in India; toured Russia, U.S.A., Ceylon, Japan, Laos, Hongkong, Burma, Nepal, Afghanistan etc. leading a delegation of the Kala Kendra troupe of dancers. Address: Jhaulal Bridge, Bhaironji Road, Lucknow; Bharatiya Kala Kendra, 2, Mata Sundari Road, New Delhi 1.

MAHAPATRA, Nityananda, Minister for Supply & Cultural Affairs, Orissa, since March 1967. b. June 17, 1912. Joined Mahatma Gandhi's Salt Satyagraha (1930); was imprisoned several times during the freedom movement; member, Balasore District Board, 1946; elected to State Assembly, 1957, 1961 and 1967; Editor: Daily Asha 1945-46; Dagora, monthly, since 1937. Publications: Novels & short stories:—Bhool; Jibanar Lakhya; Jianta Manisa; Hida-mati; Bhange Hada; Sukhara Sandhane; Egarta; Khyankika; Dhalagara-Kalagara. Belles letters:—Patra-O-Pratima; Kabipriyasu. Drama:—Harijan Mandir Prabesh; Political Literature:—Swarojya, Pala; Bhoo-Mahatmya; Mausi. Address: Minister for Supply and Cultural Affairs, Orissa, Bhubaneswar.

MAHINDRA, Keshub, B.Sc., Chairman, Mahindra & Mahindra Ltd. b. Oct. 9, 1923; Educ.: Univ. of Pennsylvania. Pres.: Bombay Chamber of Commerce & Industry, 1966-67; Assoc. of Automobile Mfrs., 1964-65; Chairman: Indian Council of Trade Fairs & Exhibitions, 1964-69; Union Carbide India Ltd.; Remington Rand of India Ltd.; International Tractor Co. of India Ltd., etc.; Director: Tata Chemicals Ltd., Tata Iron & Steel Co. Ltd., Bombay Burmah Trading Corpn. Ltd., Bombay Dyeing & Mfg. Co. Ltd.; Ceat Tyres of India Ltd., Rallis India Ltd., Reserve Bank of India, Western Area, Local Board: Otis Elevator Co. (India) Ltd.; Kaiser Jeep International Corpn. and several other companies; Pres.: Associated Chambers of Commerce & Industry; Maharashtra Economic Development Council; Vice-Pres., Indian Standards Institution; Chairman: Export-Import Advisory Cttee.; Indian Society of Advertisers, etc.; member: Central Advisory Council for Industries; National Council of Applied Economic Research; All India Board of Technical Studies in Management, etc. Address: Gateway Bldg., Apollo Bunder, Bombay 1.

MAHTAB, Harekrushnd, Ex-Dy. Leader of the Congress in Parliament. b. Nov. 1899; Educ.: Ravenshaw College, Cuttack. Elected M.L.A., Bihar and Orissa, 1924; was editor, Prajatantra, and also Rachana; courted jail several times in the freedom movement; Pres., Utkal P.C.C., 1930 and 1937; member, Congress Working Cttee., 1938-62; Chief Minister, Orissa, 1946-50 & 1957-60; Hon. LL.D., Andhra Univ., 1950, Utkal Univ., 1956 and Sagar Univ., 1958; Minister for Commerce and Industry, Govt. of India, 1950-52; Secretary-General, Congress Parl. Party, 1952-54; Governor of Bombay, 1955-56; member: Lok Sabha, 1962-67; Leg. Assembly, Orissa State; Editor, The Jhankar, a monthly literary journal of Orissa. Publications: Popular novels; dramas; History of Orissa. Address: New Delhi.

MAI MARKAND, U.R.M. Mai's Mercy (formerly C. Ramankutty Nair, L.E.E.), Spiritual Successor of late U.R.M. Mai's Mercy Mai Swarup Mai-Markand—known as Maiji, Founder, Universal Religion "Mai-ism" and Pres., "Mother's Lodge." b. June 16, 1905; Educ.: Madras Technical Institute. Was in Govt. service, 1931-61; a full-time Universal Mother Mai's servant; organised under Maiji's instructions, Mai Adherents' Institutes at Trichur, Perintalmanna, Polpully and Palghat; installed Universal Mother Mai in temples, Mai Viddyut at Trichur, Mai-Kripa at Perintalmanna and Mai Nagar at Polpully; organised Mother's Universal Sisters' Socials at Calicut, 1954, Trichur, 1957, Trivandrum, 1958 and Mai Convocations at Trichur, 1960 and Ernakulam, 1962; is in charge of Mai Adherents' Institute, Bombay with branches and followers all over India and abroad. Address: Mai Niwas, Saraswati Road, Santacruz West, Bombay-54.

MAJITHIA, Dr. Sir Surendra Singh, Kt. (1946), D. Lit. (Hon. Causa) by Gorakhpur Univ. 1970, Industrialist: Chairman, Saraya Sugar Mills Pvt. Ltd. and Saraya Engg., Works Pvt. Ltd. b. March 4, 1895; Educ.: Amritsar. Proprietor, Saraya Estate; Dir.: The Punjab and Sind Bank Ltd., Dehra Dun; Patron: Wrestling Fed. of India; U. P. Fruit Devpt. Board, Lucknow; Pres.: Working Cttee.: Maharana Pratap Inter-Coll., Gorakhpur; Buddha Degree Coll. Kushinagar, Deoria; Senior Mg. Partner: Saraya Distillery; Saraya Oil Works Fairweather's Gorakhpur; U.P. Tuberculosis Assoc., Lucknow; Cttee., Deoria Mahavidyalaya Degree Coll. and several other educational and cultural assocs. Address: Saraya Sugar Mills Pvt. Ltd., P.O. Sardarnagar, Dist. Gorakhpur (U.P.).

MAJUMDAR, Smt. Lila, M.A., Bengali writer; Jt. Editor, Sandesh. b. Feb. 26, 1908; Educ.: Calcutta. Pres., Bengal Women's Educ. League, 1939-45; Hon. Secy.: P.E.N. (Calcutta), Santiniketan Ashramik Sangha, etc., 1946-56; Producer, A.I.R.; won Indian Govt. Children's literature prizes, Sangit Natak Academy Award, 1956-63, Ananda Purashkar, 1966; Rabindra Puraokar 1969. Publications: Children's Books: Din Dupurey; Gupir Gupia Katha; Bokbodh; Halde Pakhir Palak; Taka Gachh; Lanka Dahan, etc.; Stories and Novels: Shrimati; Jonaki; Monikuntala; Jhamptal; Aina; etc.; Essays and Biographies: Upendrakishor; Abanindranath; Sukumar Ray: Reminiscences: Arkono Khane, etc. Address: Suite 8, 30, Jawaharlal Nehru Road, Calcutta 16.

MALAVIYA, Pt. Keshav Deva, M.Sc., Ex-Minister of Mines and Fuel, Govt. of India. b. June 11, 1904, at Allahabad; Educ: Allahabad Univ.; Harcourt Butler Technological Institute, Kanpur. Joined the Congress movement, 1921; courted jail several times: Gen. Secy., U.P.P. C.C. for many years; Organiser of the first Congress General

Elections as Gen. Secy., Congress Parliamentary Board, 1937; M.L.A., U.P., 1946-51; Parliamentary Secy., U.P. Govt., 1946; Minister of Development and Industries, 1947-51; Parl. Secy., Govt. of India, June 3-Aug. 11, 1952; Dy. Minister, Natural Resources and Scientific Research, 1954-57; Minister of Mines and Oil, 1957-62; Min. for Mines & Fuel, 1962-63; Member, Lok Sabha, till 1967; ex-Chairman, Heavy Engg. Corpn. Address: 7, Raisina Road, New Delhi.

MALPEKAR, Smt. Anjanibai, Fellow of The Sangeet Natak Akademi (Awarded 1958), Musician. b. April 22, 1883; Educ.: Academic education in Marathi, Urdu, Gujarati and English; learnt Music from Ustad Nazir Hussein Khan (Bhendibazarwale) for 36 years and occasionally from Ustads Chajjukhan and Khadim Hussain. Received many honours and cash gifts from Nepal, Indore and Baroda Rulers; has been a leading figure in the music world; recipient of Honorarium from Maharashtra Govt. Address: 11A, New Bhatwadi Cross Lane, Awantikabai Gokhale Road, Bombay 4.

MANEKSHAW, Gen. Sam Hormuzji Framji Jamshedji, Padma Bhushan (1968), Chief of the Army Staff, Indian Army, since June 1969. b. April 3, 1914; Educ.: Sherwood Coll., Naini Tal; Indian Military Academy, Dehra Dun; Staff Coll., Quetta; Imperial Defence Coll.; Lond. Commissioned, 4 Feb. 1934; awarded Military Cross; Brigade Major, Razmak Brigade in Waziristan, 1943-44; Instructor, Staff Coll., Quetta, 1944; active service in Burma and French Indo-China, 1945-46; General Staff Officer Grade 1, Military Operations Directorate, A.H.Q., 1946-47; promoted Brig., 1947; Dir. of Military Operations, 1948-52; commanded 167 Infantry Brigade, 1952-54; Dir. of Military Trg. until Jan. 1955; command of the Infantry School at Mhow, 1955; promoted Major Gen., 1957; Commander, 26 Infantry Dvn., J. K. State, 1957-59; Commandant, Defence Services Staff College, Nilgiris, 1959-62; G.O.C. IV Corps, 1962-63; Colonel, Gorkha Rifles, since April 1953; G.O.C.-in-C.: Western Command, 1963-64; Eastern Command, 1964-69. Address: C/o The National and Grindlays Bank Ltd., Bombay & New Delhi; Army Headquarters, New Delhi.

MANGALDAS, Madanmohan, B.A. (Bom.), Industrialist and business man, Ahmedabad. b. Oct. 5, 1917. Dir. of various cotton textile mills and associate concerns; Dir., Bank of India Ltd.; Pres., Ahmedabad Millowners' Assoc. 1955 and 1958; elected M.L.A., Bombay from Ahmedabad, 1951; rep. of employers on E.S.I. Corpn. and its standing ettee.; member: Council of Adm., ATIRA; Cttee. of F.I.C.C. & I. and also its Stg. Cttee. Adv. Cttee. (Textiles) of Ind. Fin. Corpn. of India; Board of Governors, Indian Instt. of Management, Ahmedabad; Advisory Council on Trade; National Rly. Users' Consultative Council; Cotton Devpt. Council; Dir., Mahindra Ugine Still Co. Ltd.; was member, Indian Industrial Delegation to U.S.A. and Europe sponsored by F.I.C.C.I., 1957; Chairman: Gujarat Housin. Board, 1960-67; Indian Cotton Mills Fed., Bombay, 1967-69. Address: Mangal Bag, Ellis Bridge, Ahmedabad 6.

MANGAT RAI, Edward Nirmal, B.A. (Hons.) (History), M.A. (History), I.C.S., Special Secy., Min. of Petroleum, Chemicals, Mines & Metals, since 1967. b. March 30, 1915; Educ.: Prince of Wales Royal Indian Military Coll., Dehra Dun; St. Stephens Coll., Delhi; Oxford Univ., England; Harvard Univ., U.S.A. I.C.S., 1938; held various positions mostly in the Punjab State, including those of Ping. & Devpt. Commr., Finance Secy., Chief Secy., Dir.-Gen., Food and Fin. Commr., Devpt.;

was Chief Seey., J. & K. State. Publications: Civil Administration in Punjab — An Analysis of a State Government; How Indian Federalism Works (both Harvard Univ. Press). Address: New Delhi.

MANI. Annakavoor Doraiswamy. (Madras), M.P. (Rajya Sabha), Mg. Editor, The Hitavada, Nagpur, since 1936: Vice-Pres., The Servants of India Society. b. April 8, 1910; Educ. : Madras. Joined Hitavada, 1933; General Secy., A.I.N.E.C., 1949; member, its Standing Cttee. from 1940; Rep. on the 3rd Cttee. of U.N. General Assembly, 1952 and alternate Delegate, 1955; Member: Indian Press Commission, 1952-54; Indian Society for Cultural Relations, 1961-69; Pres., A.I.N.E.C., 1954; started simultaneous edition of Hitavada in Bhopal, 1957; Chairman, P.T.I., 1959-60; member: Cttees. of different Mins. of Govt. of India; Governing Body, Indian Institute of International Studies; Vice-Chairman, Small Newspapers Enqy. Cttee., 1964-65; Member: Consultative Cttee.; Min. of Fin.; travelled extensively abroad. Publications: Of Yanks and Others. Address: Wardha Road, Nagpur; Hitavada House, Vidya Vihar, Bhopal; 20, Western Court, New Delhi.

MANSINGHKA, Mahavir Prasad, Businessman; Chairman, AICOSCA; Mg. Director, Mansinggka Industries P. Ltd. b. Nov. 21, 1927. Director: Shree Mansinghka Oil Mills (P) Ltd.; Rajasthan Vanaspati Products (P) Ltd.; Member: Reconstituted Development Council for Oils, Detergents & Paints; Indian Oilseeds Development Council, Hyderabad; Pres., Mewad Chamber of Commerce. Address: 83, Ashoka Apartments, Nepean Sea Road, Bombay 6.

MANSINHA, Dr. Mayadhar, M.A., Ph.D., Padma Shri (1967), Poet, Critic, Essayist and Educationist of Orissa. b. Nov. 13, 1905; Educ.: Orissa; obtained Ph.D. on his thesis on Kalidasa and Shakespeare from the Univ. of Durham, Gr. Br. Educational Adviser to the (now-defunct) Eastern States Agency, Inspector of Schools and Principal, Govt. College. Publications: Besides many books in Oriya covering poems, plays, travels, literary criticism, autobiography, has initiated and got published the Encyclopaedia in Oriya; Books in English: Kalidasa & Shakespeare; History of Oriya Literature; The Saga of the Land of Jagannath; Lal Bahadur Shastri (Biography). Contributor to the Encyclopaedia Britannica on Orissan topics. Address: Mansinha Lane, Cuttack 1, Orissa.

MARICAR, M.O. Hassan Farook, B.A., Chief Minister, Pondicherry, since March 1969. b. Sept. 6, 1937; Educ.: St. Mary's School, Karikal; Calve Coll., Pondicherry; Loyola Cell., Madras. Joined national movement as a student; was Secy., Town Congress Cttee.; elected M.L.A., Pondicherry on Congress ticket, 1964; Speaker of the Assembly, 1964-67; elected Leader, Congress Leg. Party and Chief Minister, April 1967; resigned, March 1968; joined D.M.K.; elected M.L.A. from Calapeth, March 1969. Address: 9, Labourdonnais St., Pondicherry 1.

MASANI, Minocher Rustom, M.P., author, management consultant, President, Swatantra Party. b. Nov. 20, 1905 in Bombay; Educ.: B.A. (Bom.), LL.B. (Lond.); Bar, Lincoln's Inn in 1928. Founder and Jt. Secy.. Congress Socialist Party, 1934-39; member, Bombay Municipal Corpn., 1935-45; Mayor, 1943-44; member: Indian Leg. Assembly, 1945-47; Constituent Assembly of India, 1947-48; Amb. of India in Brazil, 1948-49; M.P., 1949-52, 1957-62 & since 1963; Chairman, U.N. Sub-Commn, on Discrimination and Minorities, 1950-52; Patron, Liberal Intn'l; Head of Personnel and Productivity

Services, Management Consultants. Publications: Socialism Reconsidered, 1944; Picture of a Plan, 1945; A Plea for the Mixed Economy, 1947; Our India, 1953; The Communist Party of India—A Short History, 1954; Congress Misrule and the Swatantra Alternative, 1967 and several others. Address: 68, Bhulabhai Desai Road, Bombay 26.

MASUD, Husain Khan, M.A., Ph.D. (Alig.), D.Litt. (Paris), Urdu Writer; Prof., Deptt. of Linguistics, Aligarh Muslim Univ., since 1968; Editor, Qadim Urdu. b. Jan. 28, 1919; Educ.: Jamia Millia, Delhi; M.A., 1st Class, Aligarh Muslim Univ., 1941; Ph.D., 1945; D.Litt., from Sorbonne, Paris, 1953. Urdu Lecturer, Aligarh Muslim Univ., 1943-54; Reader, 1954-62; Prof., Urdu Deptt., Osmania Univ., 1962-68; member, Sahitya Akademi. Publications: Tarikhe-Zaban-e Urdu (A History of Urdu Language), Do Neem (Poems); Urdu Zaban aur Adab and Sheri-o-Zaban (Literary and Linguistic essays), etc. Address: Prof. and Head, Deptt. of Linguistics, Aligarh Muslim Univ., Aligarh, U.P.

MATHEW, Polackal Chacko, M.A. (Hons.), General Manager, Southern Railway, Madras, since Dec. 1969. b. June 14, 1913; Educ.: St. Berchman's Coll., Changanacherry; Presidency Coll., Madras. Was Lecturer, Loyola Coll., Madras & St. Aloysius Coll., Bangalore; A.T.S., Ex-Eastern Bengal State Rly., 1938; was Supdt., Bengal & Assam Rly.; served B.B. & C.I. Rly., 1947-53; Dy. Chief Operating Supdt., Western Rly., 1953-56; Jt. Dir., Rly. Board, 1956-58; Divl. Supdt., Asansol on Eastern Rly., 1958-62; Secy., Rly. Board, 1962-67; officiated as Addl. Member (Staff), Rly. Board, 1966; went on an observation-cum-study tour of the U.S. railroads, 1967; Gen. Manager, N.E. Rly., 1967-69. Address: General Manager, Southern Railway, Madras 3.

MATHRANI, Kewalram Pribhdas, B.Sc. (Hons.) (Engg.) (Edin.), I.C.S., Secy., Min. of Food, Agri., Comm. Devpt. (Deptt. of Food), Govt. of India, since Nov. 24, 1969. b. Aug. 21, 1911; Educ.: Edinburgh and London Univs. Joined the I.C.S., 1936; held various posts under the Govt. of Bombay and Govt. of Saurashtra; Jt. Secy., Union Min. of Rehab., 1952-56; in charge of reorganisation of the Bombay State as Secy., Political & Services Dept., 1956-57; Secy., Industries and Co-op. Dept., Govt. of Bombay, 1958; Jt. Secy. to the Central Cabinet and Dir., Union Organisation and Methods Dvn., 1958-59; Addl. Secy., Min. of Fin., Dept. of Eco. Affairs, 1959-61; Chairman, National Industrial Devpt. Corpn. Ltd. and Industrial Fin. Corpn. of India, 1961-64; Secy., Min. of Rehab., Govt. of India, 1964-65; Secy., Min. of Irrigation & Power, Govt. of India, 1965-69. Address: 25, Tughlak Road, New Delhi 11.

MATTHAI, Smt. Achamma John, B.A. (Hons.), Padma Shri (1955), Social Worker; Pres., Y.W.C.A. of India; was Chairman, Central Social Welfare Board. b. Feb. 21, 1898; Educ.: Trivandrum; Calcutta. Pres.: Y.W.C.A. of India 1940, 1947, 1955-59; Indian Cfee. of Social Work, 1947; Hon. Dir., Women Section of the Min. of Rehabilitation, New Delhi, 1947-50; Hon. Chairman, Cttee. for the Welfare of Displaced Women & Children, Bombay, 1951-54; member: Central Board, Bharat Sevak Samaj, New Delhi, since 1953; Cttee. on National Instt. for Higher Educ. & Trg. of Women, Union Min. of Educ., 1960; Chairman: Women's Wing, Indian Co-op. Union, New Delhi: Reorganisation Cttee., Kerala Handicrafts Emporium, Delhi; Ex-Pres.: Y.W.C.A. of Bombay. Address: Matthaipuram, Aranattukara, Trichur, Kerala.

MAW, H.E. Mr. U Hla, Thiri Pyanchi and Thihathura Tazeit, Ambassador of the Union of Burma in India, since 1967. b. Nov. 5, 1924 at Sagaing, Upper Burma; Educ.: Rangoon Univ.; Officers Trg. School, Mingaladon, 1942-43; Japanese Military Academy, 1943-45; Junior Officers' Course, Maymyo, 1946; Senior Officer Course, India, 1952; Pilot Course, Mangaladon, 1957. Served in various capacities in the Burmese Army as Battalion Commander and Brigade Commander; Military, Naval and Air Attache to: Yugoslavia, 1961-64; Japan, 1964-67; awarded Ahyaidawbon Tazeit, Lut Lau Yai-Si Yon Hmu Tazeit, Lut Myauk Yai Tazeit, 1939-45 Star, Burma Star and War Medal, etc. Address: 3/50-F, Shanti Path, Chanakyapuri, New Delhi 21.

MAZUMDAR, Smt. Lakshmi, B.Sc. (Cal.), Padma Shri (1965), Social Worker. h. Aug. 30, 1912; Educ.: Brahmo Girls' High School, Calcutta; Bethune Coll., Calcutta. Chief Commissioner, Girl Guides, India, 1961-64; National Commissioner of Bharat Scouts and Guides, since 1964; Chairman, World Centre for Guides in the Asian Region, Poona, 1962-69; Member, World Cttee. of Girl Guides 1957-66; Chairman, Delhi Children's Little Theatre, since 1955; represented the World Assoc. of the Girl Guides, at the UNESCO Cfce. in Delhi, 1957 and the Cfce. of the Intn'l Council of Women, Teheran, 1966; Hon. Member of Gilwell, Lond., the World Trg. Centre of Scouts, 1965; awarded Bronze Wolf for distinction in Scouting & Guiding (1969); has travelled in Asia, Europe, U.S.A. and Latin America. Address: C/o D. L. Mazumdar, I.C.S. (Rtd.), S-15, Panchshila Park, New Delhi 17.

MEENAKSHISUNDARAN, T. P., M.A. (His.), B.L., M.O.L. (Tamil), D.Lit. Conferred by the Madurai Univ., 1969, Diplomas in Economics, French and German, "Palkalai-c-celvar" by Dharmapuram Mutt, 1952, "Panmoli-p-pulavar" by Tiruvannamalai Mutt of Kunrakuti, 1955, Tamil scholar and writer; Vice-Chancellor, Madurai, Univ. since Feb. 1966. b. Jan. 8, 1901; Educ.: Pachaiyappa's Coll., Law Coll., Univ. of Madras. Courted jail in freedom movement; founded the Madras Tamil Sangam, 1942; Pres., All India Oriental Cfce. (XVIII) (Tamil section), 1955; Saiva Siddhanta Cfce. at Jaffna, 1956; Pres.: Linguistic Society of India, 1957; Bureau of Tamil Publications, Govt. of Madras. Publications: Tamil: Manata Cattiram; Valluwarum Makalirum; Kavi Ravindranatha Tagore, etc.: English: A History of Tamil Literature; A History of Tamil Language, etc. Address: Vice-Chancellor, Madurai Univ., Madurai.

MEHTA, Asoka, M.P., Economist and Politician. b. Oct. 24, 1911; Educ.: Wilson Coll. and Univ. School of Economics, Bombay. Imprisoned five times; Founder member of Congress Socialist Party, 1934; Gen. Seey., 1950-53; Chairman, P.S.P., 1959-63; member of national exec. for 30 years; was Dy. Leader of P.S.P. group in Parliament; Prominent trade unionist, founder of Hind Mazdoor Sabha (1949); its first Gen. Seey.; Chairman, Foodgrains Enquiry Cttee. and Powerloom Enquiry Cttee.; Dy. Leader, Indian delegation to U.N., 1963; Dy. Chairman, Plng. Commn., 1963-66; Min. for Planning, Govt. of India, 1966-67; Min. for Plng., Petroleum & Chemicals, Mar.-Sept. 1967; Min. of Petroleum and Chemicals and Social Welfare, 1967-68; Member: National Defence Council; Cong. Wkg. Cttee., since 1969. Publications: The Communal Triangle in India; Who Owns India; Political Mind of India; Democratic Socialism; Politics of Planned Economy; Socialism and Peasantry; Indian Shipping; Studies in Asian Socialism. Address: 5, Dadyseth Road, Babulnath, Bombay 7; New Delhi.

MEHTA, Sir Chunilal Bhaichand, Kt. (1942), Cotton and bullion merchant. b. Jan. 19, 1888; Educ.: Bhavnagar and Bombay. Dir.: Scindia Steam Navigation Co. Ltd.; Investment Corpn. of India Ltd.; Alcock, Ashdown & Co. Ltd., and several other commercial concerns; Sheriff of Bombay, 1935-36; Pres.: Indian Merchants' Chamber, 1940; F.I.C.C. & I., New Delhi, 1941-42; Bombay Shroffs' (Indigenous Bankers) Assoc., 1934-43; Bombay Bullion Exchange and Assoc. Ltd., 1933, '43, '56, '57; Red Cross Society, 1948-49; Vice-Pres., Indian Central Cotton Cttee., 1942-47; Leader, Indian Delegation to Intn'l Business Cfee., Rye, New York, 1944. Address: 52, Ridge Road, Malabar Hill, Bombay 6.

MEHTA, Gaganvihari L., M.A. (Bom.), Hon. LL.D., Padma Vibhushan (1959), Chairman: Reviewing Sub-Cttee., of the Central Advisory Council of Industries; 1968-69; I.C.I.C.I. Ltd., Bombay; Indian Investment, Centre. b. April 15, 1900: Educ.: Bombay; London School of Economics. Asstt. Editor, Bombay Chronicle, 1923-25; Manager, Scindia Steam Navigation Co. Ltd., Calcutta, 1928-47; was Pres., Indian Chamber of Commerce and F.I.C.C.I.; member; Constituent Assembly; Plng. Commn., 1950-52; Bd. of Directors, Air-India & I.A.C., 1965-67; Pres., Indian Tariff Board, Bombay, 1947-50; Chairman: Tariff Commn., Jan.-Aug. 1952; Hindustan Shippard, 1958-62; National Shipping Board, 1959-63; Indian Amb. to the U.S.A. and Mexico, 1952-58; Chairman: Indian Council of World Affairs, Bombay Branch, since 1966; Life Pres., Indo-American Society; Trustee, Homi Bhabha Fellowship Council, May 1966. Publications: Conscience of a Nation (1932); From Wrong Angles (1935); Perversities (1942); Understanding India (1959). Address: C/o The Industrial Credit and Investment Corporation, 163, Backbay Reclamation, Third Road, Bombay 20.

MEHTA, Smt. Hansa Manubhai, B.A., Philosophy (Hons.), Padma Bhushan, 1959, D.Litt., Allahabad Univ., 1958, D.Litt., Baroda Univ., 1959, LL.D., Leeds Univ., 1965. Ex-Vice-Chancellor, Baroda Univ. b. July 3, 1897; Educ.: Baroda. Pres., B.P.C.C., 1930; Fellow of the Senate, Bombay Univ., 1931-46; men.ber: Senate and Syndicate of the Indian Women's Univ.; Leg. Council, 1937 and 1940; Vice-Pres., A.I.W.C., 1930; member: Constituent Assembly, 1947-50; Human Rights Commn., U.N.O., 1947-52; and its Vice-Chairman, 1950-52; Pres.: A.I.W.C., 1945-46; Indian Cfee. of Social Work, 1954-57; leader, Indian delegation to the Tenth Intnl. Cfee. of Social Work, Rome. Publications: In Gujarati, Tran Natako (translations), Hamlet, Bal Kand, Sunder Kand, 1957, etc.; In English, Adventures of Ki. g Vikram, Women under the Hindu Law of Marriage and Succession, etc. Address: C/o The Bank of Baroda Ltd., Fort, Bombay.

MEHTA, Dr. Jivraj Narayan, L.M. & S. (Bom.), M.D. (Lond.) (Univ. Medal), M.R.C.P. (Lond.), F.C.3.S. (Bom.), ex-Chief Minister, Gujarat. Former Indian High Commissioner, U.K.; Vice-Chairman, Gandhi Memozial Leprosy Foundation, since 1952. b. August 29, 1887; Educ.: Amreli, Grant Medical Coll., Bombay and London Hospital. Dean, K.E.M. Hospital and G. S. Medical Coll., Bombay, 1925-42; Pres., Indian Medical Assoc., 1930, and '45; member: Board of Scientific and Industrial Research, India, 1942-62; C.S.I.R., 1960-62; courted jail in freedom movement; Dir.-Gen. of Health Services, Govt. of India, 1947-48; Member Syndicate, Baroda Univ., 1949-60; P.W.D.Min., Bombay, 1949-52; Min. for Finance, Govt. of Bombay, 1952-60; Chief Min., Gujarat, 1960-63; Indian High Commissioner to U.K., 1963-66. Publications: "Studies regarding presence of glycogen in Suprarenal

Bodies"; "The Height, Weight & Chest Measurements Enquiry relating to some School Children in Bombay". Address: C/o The Bank of Baroda Fort, Bombay 1.

MEHTA, Manubhai, V., B.Sc., Editor, Janmabhoomi, Bombay, since 1961. b. June 23, 1912; Educ.: Varanasi. Night Editor, Hindustan Prajamitra, Bombay, 1937–40; joined Janmabhoomi as sub-editor, 1940; Asstt. Editor, 1948–61. Publications: Several science books. Address: B/3, Hari Niwas, 3rd Floor, Lady Jamshedji Road, Bombay 28.

MEHTA, Mohanlal Tulsidas-Sopan, Editor, Sukani (News Weekly), since its inception, Feb. 1962; Chief Editor, Abhinav Bharati. b. Jan. 14, 1910; Educ.: Karachi. Took active part in national struggle, 1930-47; Editor, Janmabhoomi (Daily), 1948-61; was Editor: Nootan Gujarat, daily; Akhand Anand and Jeevanmadhuri monthly; was Pres., Gujarati Natya Mandal; member: Press Accreditation Cttee., Maharashtra; visited U.S.S.R., 1958 and other European countries, U.S.A., Japan, etc., 1959. Publications: 48 publications in Gujarati, Story, Novel, Biography, Philosophy, Sociology and Politics; some of his books have been translated into English, Hindi, Sindhi, Tamil and Malayalam. Address: Gulbahar, Barrack Road, Dhobi Talao, Bombay 20.

MEIYAPPAN, AV., Business man, Studio Owner and Film Producer; Mg. Director, A.V.M. Studios Pvt. Ltd., Madras. b. July 28, 1907; Educ.: Karaikudi, Madras State. Built up a firm for making gramophone records under the name and style of Saraswathi Stores at Madras, 1932; soon after took to film production; subsequently built up his own Studio; travelled widely in India and abroad in Japan, Hong Kong, U.S.A., England, U.S.S.R., Malaya, Singapore and Ceylon for business and study. Address: A. V. M. Studios Premises, Madras 26.

MENON, C. Achutha, B.A., B.L., Ex-Chief Minister, Kerala. b. Jan. 27, 1913; Educ.: St. Thomas' Coll., Trichur; Law Coll., Trivandrum; had a distinguished academic career. Started career as Dist. Court pleader; took part in Congress and trade union activities; joined C.P.I., 1942; was Secy., Dist. Cttee., C.P.I. for five years; went underground, 1948-52; elected M.L.A. on communist ticket: Travancore-Cochin, 1952-57; Kerala 1957-59; Finance Min., Communist Ministry, Kerala, 1957-59; elected to the Kerala Assembly in midterm poll, 1960; elected to the Rajya Sabha, April 1968. Publications: Translation into Malayalam of Short History of the World by H. G. Wells, Man Makes Himself by Gordon Child; Soviet Nadu; A Kisan Text Book; Kerala State - Possibilities and Problems; Ormayude Edukal -Sheafs from Memory - Reminiscences - all in Malayalam. Address: Trivandrum.

MENON, Gopal Rajagopal, B.A. (Madras), Mg. Dir., Indian Rare Earths Ltd., since Jan. 1, 1962. b. Aug. 19, 1912; Educ.: Madura and Trivandrum. Commissioned in the Army (Infa. ry), June 29, 1937; held the appointments of Quartermaster, Adjutant, Field Security Officer, Second-in-Command and Commandant of an Infantry Unit; retired as Lt.-Col., April, 1951; Chief Adm. Officer, Indian Rare Earths Ltd., 1951-61. Address: Office: C/O Indian Rare Earths Ltd., Pil Court, Maharshi Karve Road, Bombay-20; Residence: 21, Hampton Court, 125, Wodehouse Road, Colaba, Bombay 5.

MENOÑ, K. P. Kesava, B.A., Bar-at-Law, Padma Bhushan (1966), Chief Editor. *Mathrubhumi*, Kozhikode, since Oct. 1952. b. Sept. 1, 1886; *Educ.*: Madras; called to the Bar 1915. Set up practice in Calicut; joined the Indian National Congress; Secy.: Malabar Dist. Congress; Home Rule League started by Mrs. Annie Besant; gave up practice to join the 1921 N.C. Movement; Secy., Kerala P.C.C.; founded the Mathrubhumi, Malayalam Daily, 1923; led the famous Vaikam Satyagraha movement in Travancore to establish the right of the untouchables to walk along public roads, 1924; set up practice in Singapore, 1927; took active part in the Indian associations and labour organisations; imprisoned by the Japanese, 1944; released after the liberation; Pres., Aikya Kerala Cttee., 1949; was member, Stg. Cttee., A.I.N.E.C.: High Commr. in Ceylon, 1951-52; Working Pres., Kerala Sahitya Akademi, 1957-62. Publications: Various books in Malayalam. Address: Kozhikode.

MENON, K. P. S., M.A. (Oxon.), C.I.E., Padma Bhushan (1958), I.C.S. (Retd.), Chairman: Indian Statistical Institute; Central Cttee. for National Film Awards; Pres., Indo-Soviet Cultural Society: Fellow, Indian Council for Cultural Relations (1968); Ex-Indian Amb. to Russia; Chairman, Bhavan Intn'l. b. Oct. 18, 1898; Educ.: Christian Coll., Madras; Christ Church, Oxford; I.C.S., 1921. Addl. Dy. Secy. to the Govt. of India, Foreign and Political Dept.; Under-Secy. to the Hon. Resident at Hyderabad; also on the Frontier for 3 years; Agent to the Govt. of India in Ceylon, 1929-33; deputed by Govt. of India on Spl. Mission to Zanzibar, Kenya & Uganda, to enquire into the position of Indians there, 1934; Dewan of Bharatpur State for about 3 years; attended: San Francisco Cfce., 1945; Gen. Assembly of the U.N., 1946; Agent-Gen. of the Govt. of India in China, 1943-47; Ambassador in China, March 1947; Chairman, U.N. Commn. on Korea, 1948; Forgn. Secy., Govt. of India, 1948-52; Amb. to U.S.S.R., Hungary & Poland, 1952-61. Publications: Delhi-Chungking; Russian Panorama; The Flying Troika; Many Worlds; Journey Round the World; The Lamp and the Lampstand. Address: Palat House, Ottapalam, Kerala State; J-19, Hauz Khas, New Delhi-16.

MENON, Smt. Lakshmi N., M.A., L.T. (Madras), T.Dip. (Lond.), LL.B. (Lucknow), Padma Bhushan (1957), Ex-Minister of State for Ext. Affairs, Govt. of India (1962-66). Educ.: H. H. Maharaja's School, Coll. for Women and Arts Coll., Trivandrum, Lady Willingdon Trg. Coll., Madras, Maria Grey Trg. Coll., London. Member, All-India Women's Cfce.; its Pres., 1955-59; Lecturer in various colleges, 1922-33; attended the 3rd, 5th, 8th and 9th sessions of U.N. Gen. Assembly; Chief of Sect. on the Status of Women in the Human Rights Dvn. U.N. Secretariat at Lake Success, 1949-50; State Commr. for Guides in Bihar, since 1952; Parly. Secy. to Prime Min. 1952-57; Dy. Min. of Ext. Affairs, 1957-62; M.P., Rajya Sabha, 1952-66; Indian rep., U.N. Working Group on Status of women, Bangkok; attended the Triennial Cfce. of Intn'l Federation of Univ. Women: Mexico, 1962; Brisbane, 1965; was Guest-speaker at the World Y.W.C.A. meeting at Melbourne, 1967; Guest-Speaker, Triennial Cfce., Intn'l Fedn. of Univ. Women, Karlsruhe, 1968; leader, Indian Delegation to ECAFE Cfce., Manila, 1963; widely travelled abroad. Address: Plain View, Trivandrum.

MENON, Dr. Mambillikalathil Govind Kumar, M.Sc. (Bombay), Ph.D. (Bristol), F.A.Sc., F.N.I., D.Sc., (h.c.), Jodhpur Univ., S. S. Bhatnagar Award for Physical Sciences (1960), Padma Shri (1961), Padma Bhushan (1968), F.R.S., Dir., Tata Instt. of Fundamental Research, Bombay, since Feb. 1966. b. Aug. 28, 1928; Educ.: Jaswant Coll., Jodhpur; Royal Instt. of Science, Bombay; Univ. of Bristol, England. Research Associate, Bristol Univ., (1952-53); held Senior Award of the Royal

Commn. for the Exhibition of 1851 (1953-55); since 1955, at the T.I.F.R., Bombay—as Reader (1955-58), Associate Prof. (1958-60); Professor, 1960-64, Senior Prof. and Dy. Dir. (Physics), 1964-66; Seey., Cosmic Ray Commission of the "Intn'l Union of Pure and Applied Physics". Publications: About fifty-five on Cosmic Ray and Elementary Particle Physics. Address: 17, Jenkins House, Henry Road, Bombay 1.

MENON, Mangat Gopal, M.A. (Cantab.), I.C.S., Chief Secretary to the Government of Kerala, since 1967. b. Dec. 26, 1919; Educ.: Loyola Coll., Madras; Christ Coll., Cambridge. Joined Indian Civil Service in England, 1941; served the Govt. of Madras in many capacities, 1942.54; Deputy Secy., Joint Secy. & Establishment Officer, Ministry of Home Affairs, Govt. of India, 1954.62; General Manager, Pipelines and Director, Indian Oil Corporation, 1962-66; Fellow of the Centre for International Affairs, Harward Univ., 1966-67. Address: Chief Secretary to Government, Trivandrum, Kerala State.

MENON, Nedyam Balachandran, B.A., Indian Ambassador to Indonesia since June 1970. b. March 18, 1921; Educ.: Univ. of Allahabad. Served in the Indian Navy, 1943-46; joined the Indian Foreign Service and served in the Hague, 1949-51; Berlin, 1951-54; Kathmandu, 1954-57; Ottawa, 1957-59; Washington, 1959-61; Ministry of External Affairs, 1961-64; Director, China Division, 1962-64; National Defence Coll., 1964; Permanent Representative to ECAFE, Bangkok, 1965-66; Kuala Lumpur, 1966-67; Indian Political Officer in Sikkim and Bhutan, 1967-70. Address: C/o. External Affairs Ministry, New Delhi.

MENON, Parakat Achutha, B.A. (Hons.) (Madras), Chairman, Fertilisers and Chemicals (Travancore) Ltd., Alwaye; Director, State Bank of India; Chairman. Madras Industrial Linings Ltd., Madras. b. Jan. 2, 1905; Educ.: Presidency Coll., Madras; New Coll. Oxford. Joined I.C.S., 1929; served in various capacities under the Govt. of Madras and Govt. of India; member (Nominated), Indian Leg. Assembly, 1938 and 1939; member, Syndicate, Andhra Univ., 1942-43; Deputy Secy. and Secy., India Supply Mission, Washington, 1943-47; Adviser or member of several Indian delegations to international organisations including the U.N., 1945 and 1946; Joint Secy., Min. of Ext. Affairs, 1947-49; Min. to Portugal, 1949-51; Amb. to Belgium and Min. to Luxembourg, 1951-54; Amb. to Thailand, 1954-56; High Commissioner to Australia and New Zealand, 1956-59; Amb. to: Argentina, 1959-60; Federal Republic of Germany, 1960-64. Address: 'Padmaja', 4-A, Tank Bund Road, Nungambakkam, Madras 34.

MENON, Puthezhath Raman, B.A., B.L., Sahithya Kusalan, Advocate, High Court, Kerala, Malayalam Writer; Pres., Kerala Sahitya Akademi. b. Nov. 1889; Educ.: Trichur, Ernakulam and Madras. Dist. Court Advocate for 21 years; Public Prosecutor for one year; Sarvadhikaryakkar to the Maharajah of Cochin, 3 years; Dist. Judge for 4 years; Actg. High Court Judge for one year; retired, 1944; is a scholar, good orator and is a humorous writer. Publications: Author of over 56 popular books including Sakthan Thampuran, pertaining to the history of Cochin and the biography of its great Ruler Sakthan. Address: Trichur 1.

MENON, V. K. Krishna, B.A. (Madras), B.Sc. (Econ.), London, M.A. London, M.Sc. (Econ.), Diploma in Educ. (Lond.), Bar-at-Law, Middle Temple, King's Inns, Dublin (Honoris Causa), LL.D., Glasgow (Honoris Causa), LL.D.

(Honoris Causa): New Brunswick (Canada), Saugor, (M.P.), Osmania (Hyderabad), Utkal (Orissa), D.Litt. (Mysore), Padma Vibhusan (1954), M.P. (Lok Sabha), Ex-Min. for Defence, Govt. of India. b. 3rd May 1896; Educ.: Tellicherry and Kozhikode (Kerala), Madras and London, National Univ., Adyar. Secy., The India League, 1929-47; Councillor, St. Paneras, London, 1934-47; Labour Parly. Candidate, Dundee, Scotland, 1939-42; Indian rep. at various Intn'l Congresses on behalf of Indian National Congress from 1936; visited various European capitals as Pandit Nehru's Personal Rep. and made preliminary arrangements for establishing diplomatic relations; High Commr. for India in London. 1947-52; India's Amb. to Ireland, 1949-52; Chairman, Indian Delegation to the Gen. Assembly of the U.N., 1952-53, '54 to '62; Min. without Portfolio, Govt. of India, 1956-57; Defence Min., 1957-62; Senior Advocate, Supreme Court of India; M.P. Lok Sabha, from North Bombay Constituency, 1957 and 1962 and from Midnapore in the bye-election, May 1969. Publications: First Editor, Pelican Books; Editor, 20th Century Library (Bodley Head): Pamphlets and Articles such as India, Britain and Freedom; Why Must India Fight; Britain's Prisoner: Nehru; Unity with India against Fascism; Independence, in collaboration with the Ellen Wilkinson, The Condition of India. Address: 19, Teen Murti Marg, New Delhi.

MENON, Dr. V. K. Narayana, M.A., Ph.D., Padma Bhushan (1969), Executive Director, National Centre for the Performing Arts since Oct. 1968; Hon. Exec. Director, Homi Bhabha Fellowships Council. b. June 27, 1911; Educ.: Univ. of Madras; Univ. of Edinburgh. BBC Eastern Services, 1942-47; All India Radio—various positions including Director of Calcutta, Madras and Delhi Stations, External Services, Deputy Director General etc., 1948-63; Secy., Sangeet Natak Akademi, 1963-65; Director-General, A. I. R., 1965-68; Rockefeller Travel Grantee, 1957; Pres., International Music Council (Unesco), 1966-68; Trustee, International Broadcast Institute; Member, Unesco Advisory Panel on Space Communication, 1965-68; Member, Exec. Board, Sangeet Natak Akademi. Publications: The Development of William Butler Yeats (Oliver & Boyd); Kerala—A. Profile; Balasaraswati; Translation of the award-winning Malayalam novel Chemmeen (Harpers, New York; Gollancz, London). Address: Executive Director, National Centre for the Performing Arts, 'Akashganga,' 89, Bhulabhai Desai Road, Bombay 26.

MERCHANT, Vijay Madhowji, B.Com. (Bombay), Sheriff of Bombay, 1969–70; Veteran Cricketer; Mg. Agent, Thackersey Group of Mills. b. Oct. 12, 1911; Educ.: Bharda New High School & Sydenham Coll. of Commerce & Economics, Bombay. Joined Thackersey Group of Mills, 1932; is Dir.-in-charge, Hindoostan Mills and Sirdar Carbonic Gas Co. Ltd.; actively associated with the blind instts in Bombay, Maharashtra Soc. for the Donation of Eyes and J.J. Group of Hospitals Blood Bank; played for India in intn'l cricket, 1933–34; figured in 16 Test matches for India — all against England; retd. from first class cricket, 1951; average in first class cricket, 72.23, only next to that of Don Bradman. Publications: 50 Years of Indian Cricket: Duleep: The Legend and the Man. Address: Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

MICHAEL JOHN, Trade Union Leader; Ex-Member, A.I.C.C.; President: Indian National Iron & Steel Workers' Fed.; Indian National Mineworkers' Fed.; and, Colliery Mazdoor Sangh. b. Nov. 29, 1903, at Vepery, Madras; Educ.: Dufton Coll., Madras. Courted jail for political and trade union activities; Pres., I.N.T.U.C.

1952, 1953, 1960-61, 1961-62 and of its Bihar and Orissa branches; Member: Bihar Leg. Assembly, 1946-52; Rajya Sabha, 1957-62; Central Advisory Council of Industries; Central Cttee., of International Metalworkers' Federation & Miners International Fedn., Lond.; Standing Labour Cttee.; Bihar Regional Employees Prov. Fund Commission; Dir., Hindustan Steel Ltd. Address: 17/27, K. Road, Jamshedpur, Bihar.

MIR QASIM, M.A., LL.B., Ex-Pres., Jammu & Kashmir P.C.C. b. August 1921; Educ.: Aligarh. Entered political career, 1943; was arrested during Quit Kashmir movement, 1946; Advocate, Kashmir High Court; member, Kashmir Constituent Assembly, 1951-56; Chief Parly. Secy., 1952; Secy.: Basic Principles Cttee. and Drafting Cttee. of Kashmir Constituent Assembly; Kashmir Leg. Assembly, since 1957; Revenue and Rehabilitation Min., 1953; left the organisation and formed the opposition group of the Democratic National Cfce., 1957; again joined the organisation, 1960; Min. for Law, Irrigation & Power, Jan. 1961-April 1962; Min., Revenue & Rehab., 1962-63; was Gen. Secy., National Cfce.; Min. without Portfolio 1965-66; represented India in UNO, Sept. 1965; Mem. A.I.C.C. since May 16, 1970. Address: Dooru, Anantnag, Kashmir; Gagribal, Srinagar, Kashmir.

MIRAJKAR, Shantaram Savlaram, Trade Unionist; Pres., All-India Trade Union Congress since 1958; member, Presidential Committee, All India Peace Council. b. Feb. 8, 1902; Educ.: Maratha High School, Girgaum, Bombay. Trade Unionist since 1920; Secy.: Workers' and Peasants' Party (1927); Girni Kamgar Union (Red Flag) (1928); Founder Member, C.P.I., (1926); Vice-Pres., A.I.T.U.C. (1948-57); Member, Bombay Municipal Corpn. (1939-48; 1957); Chairman, Stg. Cttee., Bombay Municipal Corpn. (1957-58); Mayor, Greater Bombay, 1958-59. Publications: Various Tracts and Marathi Publications. Address: New Municipal House, Sion (East), Bombay 22.

MISHRA, Pt. Dwarka Prasad, B.A., LL.B., D.Litt. (Honoris Causa), Ex-Chief Minister, Madhya Pradesh. 5. Aug. 5, 1901; Educ.: St. Paul's High School, Raipur; Christ Church Coll., Kanpur; Robertson Coll., Jabalpur (B.A.); Law Coll., Allahadabad (LL.B.). Elected to the Indian Leg. Assembly, 1926; Pres., Municipal Cttee., Jabalpur, 1932; Min., C.P. & Berar, 1937; Home Min., M.P. Govt., 1946; Vice-Chancellor, Univ. of Sagar, 1956-61; Leader M.P. Leg. Congress Party, Sept. 24, 1963. Publications: Krishnayun (Life of Lord Krishna in Hindi Verse). Address: Nishat Manzil, Bhopal, M.P.

MISHRA, Lalit Narayan, M.A. (Econ.), Minister of Foreign Trade, Govt. of India, since June 1970. b. Jan. 1923; Educ.: Patna. Congress worker, since 1939; underwent imprisonment in the freedom movement; Secy., Bihar P.C.C., 1944-46 and its Pres., 1946-48; Fellow, Patna Univ. Senate, 1948-49; Member: A.I.C.C., 1950-53 and since July 1963; Lok Sabha, 1952-62; Lok Sabha Estimates Cttee., 1955-56; Parly. Secy., Min. for Planning, Labour & Employment, 1957-60; Dy. Min. for Labour, Employment & Planning, 1960-62; Chairman, National Projects Construction Corpn., 1962-64; Gen. Secy., All India Bharat Sewak Samaj, 1962-64; elected to the Rajya Sabha, Feb. 17, 1964; Dy. Min. for Home Affairs, Govt. of India, 1964-66; Dy. Fin. Min., 1966-67; Min. of Scate: Labour, Employment & Rehab., Mar. Nov. 1967; Defence Production 1967-70; Leader, Indian Delegation, Governing Body of the I.L.O., Geneva, 1967; travelled Geneva, England, France, West Germany, U.S.A. & Japan. Publications: An Armed League of Un-

armed Nation — a brockure on International Peace. Address: 9, Akbar Road, New Delhi 11.

MISHRA, Dr. Pandit Raghunath, M.L.A., Political & Social Worker. b. June 30, 1916; Educ.: Ravenshaw Coll., Cuttack; expert in Sanskrit and Oriya Literature, Vedic Lore and Vedantic Culture. Taught Sanskrit and English (1942–45); launched satyagraha against animal sacrifices in temples, 1950; Gen. Secy., Ganatantra Parishad, 1957–60; member: Exce. Cttee., Swa. Party, Orissa Unit till April 1965; Leg. Assembly, Orissa, 1961; re-elected, 1967; Dy. leader of the Opposition, 1961-65; member: State Board of Homoeopathic Medicine; Sanskrit Parishad & Council. Publications: Books on Oriya grammar and literature and also Oriya and Sanskrit text books for schools. Address: P. O. Banpur, Dist. Puri (Orissa); Tulasipur, Cuttack 1.

MISHRA, Raj Ballabh, Min. for Community Development & Panchayati Raj, Agriculture, Labour, Employment & Housing, Orissa, since March 1967. b. May 11, 1917; Educ.: Keonjhargarh H.E. School, Keonjhar. Member, Orissa and Chhatisgarh Regional Council 1946-48; was Seey., Vice-Pres. and Pres., Ganatantra Parishad, from 1950 till it merged with the Swatantra Party; Dy. Leader of the Opposition, 1957; Min., Tribal and Rural Welfare, Labour and Housing, 1959-61; Editor, Oriya Weekly Ganatantra, 1953-58; Member Board of Editors, Oriya Daily Swaraj, 1966 and 1967; Member, Exec. Council, All India Swatantra Party. Address: Bhubaneswar-1.

MISRA, Shambhu Maharaj, Padma Shree (1958), Rashtrapati Award (1955), Dancer; Senior Professor of Dancing; Teacher of Dancing to Govt. scholarship holders in Bharatiya Kala Kendra, Delhi. b. Nov. 15, 1907; Educ.: Learned music under Ustad Rahimudin Khan; training in dancing under his brother and Guru Jagannath Parsad alias Achan Maharaj. Started dancing career in 1925; spread the Kathak Natvari Nirtya from Lucknow; danced at music conferences at: Lucknow, 1925; Ajmer, Jaipur, Calcutta, Bombay, Baroda and Allahabad; was honoured as 'Nirta Samrat' in Dehra Dun, 1936. Address: 6A/6, W.E.A., Karol Bagh, New Delhi 5.

MISTRY, Phiroze Kaikhushroo, M.A. (Cantab.), LL.B. (Hons.) (Cantab.), Barrister-at-Law, Managing Director, The Associated Cement Cos. Ltd., since April 2, 1970. b. Sept. 1, 1911; Educ.: Pembroke Coll., Cambridge. Practised at the Bombay Bar, 1934; C. P. Cement Co. Ltd., Bombay, 1935-36; Senior Officer, A.C.C. Ltd., 1936-46 and 1950-52; Secretary, A.C.C. Ltd., 1952-56; Director, Cement Agencies Ltd., Managing Agents of the A.C.C., 1956-67; Managing Dir., Cement Agencies Ltd., 1967-70. Address: "Cement House", 121, Maharshi Karve Road, Bombay 20.

MITRA, Asok, B.A. (Cal.), I.C.S., Seey., Planning Commission from Feb. 9, 1970. Ex-Seey. Min. of Civil Aviation and Tourism, Govt. of India, 1969-70. b. March 1, 1917; Educ.: Presidency Coll., Calcutta; Merton Coll., Oxford. Served in Bengal in various capacities, 1940-50 & 1952-58; Supdt. of Census Operations, West Bengal, 1950-52; Addl. Secy., Plng. Commn., 1965-66; Registrar-Gen. & Census Commr., India, 1958-69 and Secy., Min. of Information & Broadcasting, 1966-69; Secy., Min. of Civil Aviation & Tourism, Govt. of India 1969-70. Publications: The Tribes and Castes of West Bengal; Paschim Europer Chitrakala; Bharater Chitrakala; Four Painters: Calcutta: India's City. Address: 8, Grove Lane, Calcutta 26; Planning Commission, Yojana Bhavan, Parliament Street, New Delhi 1.

MITRA, Dr. Bhupendra Nath, ex-Colonel, D.Sc. (Dacca), Ph.D. (Minnesota), F.R.I.C., Sigma XI, Emeritus Scientist, Indian Instt. of Experimental Medicine, Calcutta, since Dec. 1965. b. 1905; Educ.: Dacca, Minnesota, Rothamsted Experimental Station, England; awarded Rockefeller Foundation Fellowship 1936–37; invited to attend Intn'l Congress for microbiology, New York, 1939 and for pure and applied chemistry, London, 1947; visited research instt.s in U.S.A., U.K. and Europe. Commissioned in the Indian Army, 1940–57; Asstt. Dir. Gen., C.S.I.R. (1958–59); Dir., Regional Research Laboratory, Jorhat, 1959–64; Dir., Central Indian Medical Plants Organization, Lucknow, 1964–65. Publications: Research papers in chemistry, biochemistry and allied subjects; special studies in protein chemistry; author of military explosive PEK and some ammunition which are in production in India. Address: 83/1A, Ballyganj Place, Calcutta-19.

MITRA, Gajendra Kumar, Bengali writer; Editor, Kathasahitya, a monthly journal. b. Nov. 11, 1908; Educ.: Central Kashi Instt., Anglo-Bengali School, Banaras; Jagatbandhu Instt.; St. Xavier's Coll., Calcutta. Began editing mss. magazines at the age of eight; a professional publisher; made a hit picture "Kangan"; based on Rajanigandha and later more short stories and novels filmed. Publications: More than 50 titles: Bharate Bari; Ratrir Tapasya; Janmechhi Ei Deshe; Nari O Niyati; Sohagpura; Purush O Ramani; Malachandan; Kalkatar Kachei, Akademi award (1959-60). Akashlipi; Nilkanthi; Dahan-O-Dipti; Poush Faguner Pala, Rabindra Memorial Prize, 1964; Bahnibanya (On Mutiny); Prithivir Itihas; Ami Kaan Pete Roi; Ekada Kee Kariya; Ek Praharer Khela, etc. Address: P21, Beni Bannerjee Avenue, Dhakuria, Calcutta 31.

MITRA, Sombhu, Akademi Award as the Best Stage Dir. (1959). Fellowship of the Sangeet Natak Akademi (1966); Actor and Stage Dir. b. Aug. 22, 1915; Educ.: Balyganj, Govt. High School, and St. Xavier's Coll., Calcutta. Professional actor in the Bengal Stage, 1939-42; Producer-Dir.-Actor, Indian People's Theatre Assoc., 1943-46; organized a Theatre Unit, Bohurupee, 1948; produced the following Plays, viz., Four Chapters, Red Oleanders, Sacrifice; King of the Dark Chamber; also adapted and produced plays of Ibsen, Sophocles and other Masters—A Doll's House, Oedipus Rex; won the Grand Prix award for his film "Under the Cover of Night" Ek Din Ratre/Jagte Raho at the Carlovy Vary Film Festival, 1957. Publications: Abhinay-Natak Mancha; Putul Khela; Kanchanranga; Ghurnee. Address: 11A, Nasiruddin Road, Park Circus, Calcutta-17.

MITTER, Mr. Justice Gopendra Krishna, B.Sc. (Hons.) (Patna), Bar-at-Law, Lincoln's Inn, Judge, Supreme Court of India since Aug. 29, 1966. b. Sept. 24, 1906; Educ.: Zilla School, Muzaffarpur; Patna Coll., Patna; The Univ. Coll., London. Started practising in the courts at Muzaffarpur, 1931; practised at the Bar of the Calcutta High Court, 1934–52; Judge, Calcutta High Court, 1952–66. Address: Supreme Court of India, New Delhi.

MODI, Rai Bahadur Seth Gujarmal, Padma Bhushan (1968), Industrialist; Chairman, Modi Enterprises, Modinagar. b. Aug. 1902, Patiala State; Pres., F.I.C.C.I., 1968-69; Educ.: Privately. Entered business at a young age; founder, 'Modinagar', in Dt. Meerut, U.P.; established industries like Modi Sugar Mills, Modi Vanaspati Mfg. Co., Modi Paint, Modi Steels and Varshish Works, Modi Are Electrodes Co., Modi Spg. & Wvg. Mills Co.

Ltd., Modi Thread Mills, Modi Yarn Mills, Modi Synthetic Fibre Corpn. at Jagadhri; Patiala Flour Mills Co. (P) Ltd., Okhla, New Delhi, Associated Tubewells (I) P. Ltd. and several others; Chairman, Modi Charitable Fund Society and R. B. Multanimal Charitable Trust; Founder, Western U.P. Chamber of Commerce; ex-Pres.: Western U.P. Productivity Council; member: State Plng. Board, U.P. State Tech. Educ. and Trg. Board, U.P.; is a philanthropist; built an Industrial Colony 'Govindpuri', with Govt. aid, to rehabilitate the displaced persons. Address: P. O. Modinagar (Meerut), U.P.

MODY, Rustomji Hormusji, Industrialist; Member, Govg. Body, Nat. Council of Applied Econ. & Res. b. Jan. 17, 1918 in Bombay; Edwc.: Harrow and Oxford. Director: Tata Industries Private Ltd.; Tata-Robins-Fraser Ltd.; West Bokaro Ltd.; Vice-Chmn., Tata Exports Ltd.; Pres., All India Organisation of Industrial Employers; Ex-Pres., Indian Chamber of Commerce; Mem.: Industrial Affairs Sub-Committee of the Bengal Chamber of Commerce; former Commissioner, Port of Calcutta; Delegate to XVIII Congress of Intn'l Chamber of Commerce, Copenhagen (1961); attended International Coal Conference, Tokyo (1963); employers' rep. at 51st Intn'l Labour Conference, Geneva (1967). Address: Residence: 5, C. Road, Jamshedpur; Office: The Tata Iron and Steel Co. Ltd., Jamshedpur.

## MOHAMMED, Bakshi Gulam (See under Bakshi Ghulam Mohammed).

MOHANTY, Gopal Nath, M.A., O.A.S. (I) Retd., Oriya Novelist; Story writer and literary Critic, Oriya Adv. Board of the Bharat Sahitya Akademi. b. April 20, 1914; Educ.: Patna High School, Patna; Ravenshaw Coll., Cuttack. Made a thorough study of the Adivasi tribes of Orissa; awarded the Rashtrapati Award, 1955, for his novel Amrutara Santana in Oriya (translated into Hindi, Bengali, Punjabi and Telugu by the Sahitya Akademi). Publications: Novels: Harijana; Danapani; Paraja, Laya Bilaya, Mati Matala etc.; Stories: Ghasara Fula; Chhai Alua, etc.; Dramas: Mahapurusha, etc.; Essays: Premara Niyati, etc.; Biography — Dipam Jyoti; Utkalamani etc.; Literary Researches; Adivasi Researches: Kuvi Kondh Bhasa Tattwa; Kondh Paraja Stotra O Sangita; Gadava Bhasa Parichaya; Poems in Kuvi Kondh etc.; Translations: Tagore's Yogajog etc. Address: Plot No. 200, Unit III, Bhubaneswar.

MOHI-UD-IN, Akhtar, B.A., Padma Shri (1968), Writer in Kashmiri; Dy. Dir., Field Survey Orgn., Kashmir Dn. b. April 17, 1928; Educ.: Srinagar. Started writing in Urdu, 1951 and in Kashmiri, 1953; won Sahitya Akademi award for a Kashmiri short stories book, 'Sat Sangar', 1958; represented Kashmir at writers' cfce.s at Delhi, Hyderabad, Mysore and Kerala; member: Editorial Staff, The J. & K. Academy of Art & Culture and Languages, Srinagar; Expert Cttee. on Mass Media formed under the National Integration Council; J. & K. Govt. Text Book Adv. Board; visited U.S.S.R. under Inde-U.S.S.R. Exchange of cultural Delegations' Agreement, April 1968. Publications: In Kashmiri: Short Stories: Sat Sangar; Novel: Dod Dug, Soenzal; Zoo Te Zolaana; wrote numerous plays in Kashmiri for stage as well as for radio. Address: Sikidafar, Srinagar 2.

MOOKERJEE, Sir Biren, M.A. (Cantab.), M.I.E. (Ind.), Kt. (1942), Governing Director, Martin Burn Ltd., Calcutta. b. Feb. 14, 1899; Educ.: Hastings House and Sibpur Engineering Coll., Calcutta; Trinity Coll., Cambridge. Joined Martin & Co. as an Assistant, 1924; made partner, Burn & Co., 1931 and Martin & Co., 1934;

elected Sheriff of Calcutta, 1940; was Chairman: Calcutta Board, former Imperial Bank of India; Governing Body, Sibpur Engineering Coll.; Fellow, Faculty of Engineering of the Calcutta Univ.; was member, Indian Mission which negotiated Rs. 15-crore loan from the World Bank to the Indian Iron & Steel Co. Ltd.; Chairman, Indian Iron & Steel Co., Calcutta. Address: 7, Harrington Street, Calcutta 16.

MOOLGAOKAR, Sumant, B.Sc. (Hons.) (Lond.), J.P., Business Executive. b. March 5, 1906; Educ.: St. Xavier's High School and St. Xavier's Coll., Bombay; Imperial Coll., London. Started career with the A.C.C. Ltd.; served the cement industry in various tech. and managerial capacities, 1930–48; Mg. Dir., TELCO Ltd., 1949; was Chairman: Engg. Capacity Survey Cttee.; Machine Tools Devpt. Cttee.; member: Indian Defence Delegation to Washington, 1963; National Plng. Council, Plng. Commn.; Adv. Bd., Coll. of Mily. Engg., Poona; Chairman: Tata Exports Ltd.; A.C.C.-Vickers-Babcock Ltd.; Vice-Chairman: Tata Industries Pvt. Ltd.; TISCO Ltd.; TELCO Ltd.; Dir.: Tata Sons Pvt. Ltd.; A.C.C. Ltd.; Cement Agencies Ltd.; Heavy Engg. Corpn., Ranchi, etc. Address: Bombay House, Fort, Bombay 1; Res.; Mayfair, Little Gibbs Road, Malabar Hill, Bombay 6.

MORRES, Francis Robert, M.A. (Oxon.), B.A. (Bombay), Bar-at-Law, Editor-in-Chief, The Indian Express, Delhi, since Dec. 9, 1957; Sheriff of Bombay, 1961-62. b. Nov. 12, 1907; Educ.: St. Xavier's Coll., Bombay and Oxford Univ. Asstt. Editor, The Times of India, 1938-46; Editor of The Times of Ceylon, 1946-48; War Correspondent, Burma-China, 1942-45; Actg. Editor, The Times of India, April 11-Aug. 14, 1949; Dy. Editor, The Times of India till March 1950; Editor, The National Standard, March-Nov. 1950; was member, Indian Cultural Delegation to China, April-June 1952; Editor, The Times of India, Bombay, 1950-57. Publications: Story of India; Introduction to India with Robert Stimson; Report on Mao's China; Jawaharlal Nehru; Yonder One World; The Revolt in Tibet; India Today; Nehru-Sunlight and Shadow, 1964; The Importance of Being Black (all six Macmillans, New York); Sir Purshotandas Thakurdas (Asia Publishing House, 1957). Address: 3, Central Avenue, Maharani Bagh, New Delhi.

MUDALIAR, Sir A. Lakshamanaswami, M.D., LL.D., D.C.L., D.Sc., D.Litt., F.R.C.O.G., F.A.C.S., F.R.C.P. (Edin.) (Honoris), Padma Bhushan (1954), Padma Vibushan (1963), Leon Bernard Foundation Medal (1970), M.L.C., Educationist. b. Oct. 14, 1887; Educ.: Christian and Medical Colleges, Madras. Prof. of Obstetrics and Gynaecology, Medical Coll., 1934-42; Supdt., Govt. Hospital for Women and Children, Egmore and Principal, Medical Coll., 1939-42; Vice-Chancellor, Madras Univ., 1942-69; Member, Syndicate, Madras Univ., since 1925; member: Indian Medical Council, since its inception; All-India Council of Technical Education; All-India Council of Scientific and Industrial Research; and of its Governing Body; Exec. of the Assoc. of Commonwealth Univs., since 1948; Chief Commissioner, Madras Prov. Boy Scouts Assoc.; Chairman: Exec. Board, W.H.O.; Exec. Board, UNESCO, 1955; President 14th World Health Assembly, 1961. Publications: Clinical Obstetrics; Ante-Natal and Neo-Natal Mortality of Infants; Case-book for Midwives. Address: 464, P. H. Road, Madras 10.

MUDALIAR, Sir A. Ramaswami, Diwan Bahadur, Kt., K.C.S.I. (1942), Ex-Vice-Chancellor, Travancore University. b. Oct. 14, 1887; Educ.: Christian and

Law Colleges, Madras. Advocate, Madras; M.L.C., Madras, 1920–26; Pres., Municipal Council, Madras, 1928–30; member: Council of State, 1930; Indian Leg. Assembly, 1931–34; R.T.C. Federal Structure Cttee.; and Indian Franchise Cttee.; Indian Reserve Bank Cttee. Hon. Editor, Justice, 1927–35; Member: India Council of Seey. of State for India, 1936–39; Viceroy's Executive Council for Commerce Dept., 1939–42; Supply Member, 1943; Leader, Indian Delegation, San Francisco, 1945; Leader, Indian Food Delegation to U.K. and U.S.A., 1946; Hon. D.C.L.: Oxford Univ., 1946; Durham, 1953; Chairman: U.N. Cttee. on Forced Labour; International Civil Service Board of U.N.O.; Dewan, Mysore State, 1946–49; Member, Rajya Sabha; Member, I.L.O. Conventions Cttee.; Chairman: India Steamship Co., Ltd.; Tube Investments of India Ltd. Address: 464, P. H. Road, Madras 10.

MUGALI, Dr. Ranganath Shriniwas, M.A., B.T. (Bom.), D. Litt. (Poona), Kannada writer; Prof. and Head of the Dept. of Kannada & Dean, Faculty of Arts, Bangalore Univ. b. July 15, 1906; Educ.: P. D. High School, Bijapur; Karnatak Coll., Dharwar. Life member, D. E. Society, 1937-66; elected member: Karnatak Univ. Senate, 1950; Academic Council, 1952; Univ. Teacher for Ph.D., Poona Univ. since 1951; Sahitya Akademi Award for Kannada Sahitya Charitre, 1956. Publications: The Heritage of Karnatak; Poems: Basiga; Aparakarune; Om Ashantih; Novels: Baluri; Karanapurusha; Anna; Drama: Namadhari; Vijaya Samrajya; Manorajya; Ettida Kai etc.; Short story: Kanasina Keladi; Criticism; Sahityopasane; Kannada Sahityada Itihasa, etc. Address: Bangalore 1.

MUKERJEE, Hirendra Nath, M.A. (Calcutta et Oxon.), B.Litt. (Oxon.), Barrister-at-Law, M.P., Communist leader and Educationist. b. Nov. 23, 1907; Educ.: Calcutta and Oxford. Head of the Dept. of History, Surendranath Coll., Calcutta, since 1936; member: A.I.C.C., 1938; Bengal Provincial Cttee., C.P.I., 1947-49; M.P., since 1952; Dy. Leader, Communist Parly. Group since 1952 and after secession of the Left, leader, 1964-67; member: National Council, C.P.I.; Calcutta Univ. Senate, 1953 and 1957; Central Advisory Board of Archaeology since 1952; Member, Exec. Cttee.: Jawaharlal Memorial Trust; Shastri National Memorial Trust; National Cttee, for Gandhi Centenary; Member: Educ. Integration Cttee.; Cttee. on Small Newspapers; National Library Receiving Cttee., etc. Publications; An Introduction to Socialism (1939); China Calling (1942); Under Marx's Banner (1944); India Struggles for freedom (1946); Gandhiji: A Study (1958); Himself a True Poem, A Study of Tagore; India and Parliament; The Gentle Colossus: A Study of Jawaharlal Nehru; Remembering Marxand other volumes in English and in Bengali. Address: 14, Indian Mirror Street, Calcutta 13.

MUKERJI, Sashadhar, M.Sc., Padma Shri (1967), a leading Film Producer; Chairman, Filmalaya Pvt. Ltd. b. Sept. 29, 1909; Educ.: Allahabad. Joined Bombay Talkies, 1935; produced Kangan, Bandhan, Jhoola, Naya Sansar and Kismet; founded Filmistan, 1943 and produced Shikari, Sindoor, Shahnai, Sargam, Actress, Anand Math, Samadhi, Sajan, Do Bhai, Shaheed, Anarkali, Nagin, Nastik, Shabnam, Jagriti, Munimji, Paying Guest, and Tum Sa Nahin Dekha; left Filmistan, May 1958; opened Filmalaya Pvt. Ltd.; produced Dil Deke Deko, Love in Simla, Hum Hindustani in colour and Ek Musafir Ek Hasina, Address; "Grotto Villa", 2nd Hasana-bad Lane, Santa Cruz West, Bombay 54.

MUKHERJEE, Ajoy Rumar, Ex-Chief Minister, West Bengal; Politician. b. April 15, 1901; Educ.: Hamilton School, Tamluk; Uttarpara Coll., Hooghly; Presidency College, Calcutta. Joined the N. C. movement, 1921; suffered imprisonment several times during the freedom movement; was Supreme Leader, in the "National Govt." established in Tamluk during the "Quit India" movement; elected M.L.A., West Bengal from Tamluk since 1952 and in 1969 mid-term election; Minister for Irrigation, 1952-63; left the Ministry in pursuance of the Kamaraj Plan, Sept. 1963 and devoted himself entirely to organisational work and rural uplift; Pres., West Bengal P.C.C., 1964; left the organisation and formed the Bangla Congress, 1966; is its Pres.; Chief Min., W. Bengal, March-Nov. 1967 & 1969. Address: Calcutta.

MUKHERJEE, Dr. Subodh Kumar, M.Sc., S.M.Sc.D., Director, Fertilizer Corpn. of India Ltd., New Delhi, b. June 1, 1920; Educ.: Calcutta & U.S.A. held positions ranging from Senior Shift Charge Engineer to General Manager in different Fertilizer Units of the G.O.I.; was responsible as leader of a team of young Indian Engineers and Scientists for building a Fertilizer Plant at Rourkela; organised the first project division in the F.C.I.; Vice-Pres., Indian Instt. of Chem. Engineers; member: Cttee. of Scientists of Intal. repute to Study New Fertilizer Materials; Adv. Cttee. of Dept. of Chem. Engineers, Ind. Instt. of Technology, Kharagpur, etc. etc., awarded H. K. Sen Memorial Medal by the Ind. Instt. of Chemists, 1967; Dir.: Hindustan Organic Chemical Ltd., 1966-69; Indian Oil Corpn. Ltd. has been a Member of Inta'l. Group of Experts for U.N. Regional Seminar at Kiev; F.A.O. expert on Statistics, etc. Address: F-43, South Extension, Part I, Ring Road, New Delhi 49.

MULLA, Anand Narayan, M.A., Ll.B., Sahitya Akademi Award (1964), Urdu Writer; Advocate, Supreme Court. b. Oct. 24, 1901, at Lucknow; Educ.: Govt. Jubilee High School and Canning Coll., Lucknow. Started writing poems in English, 1917; switched over to Urdu, 1926; practised law at Lucknow, 1926-46; Judge, Allahabad High Court, 1954-58; Senior Judge, Lucknow Bench, 1958-61; M.P. (Lok Sabha) from Lucknow Constituency, 1967; Chairman, Land Acquisition Cttee., 1967; appointed one-man enquiry commission to enquire into charges against Ministers by Kerala Govt., 1969. Publications: Mazamin-E-Nehru (1938); Translation in Urdu of Pandit Nehru's selected articles; collection of poems: Jue-Sheer (1949); Kuch Zare-Kuch Tare (1959); Meri Hadise Umre Gurezar (1963), which won Sahitya Akademi Award 1964. Address: 2, China Bazar Road, Lucknow; 29, Ferozeshah Road, New Delhi I.

MUNDASSERY, Joseph, M.A., Sahityakusala & Sahityanipuna by Cochin Maharaja, Politician and Malayalam Writer; Principal, Co-op. Coll., Trichur. b. 1904. Visited China, Soviet Union and European countries; entered active politics, 1946; member, World Peace Council; has been associated with educational activities for several years; was M.L.A. for about 10 years; Minister for Education, Kerala, 1957-60; was Editor of various literary journals and also a daily. Publications: More than forty volumes including fiction, travel, biography, literary criticism and general essays; Some Books: Karyapeetika, Konihayilninnukurisilekku, Manushyakathanugayikal, Manadandam Natakantam Kavitaum, Professor, Vayanasalayil, etc. Address: Trichur.

MUNSHI, Kanaiyalal Maneklal, B.A., LL.B., D.Lit., LL.D., Founder Pres., Bharatiya Vidya Bhavan, since 1938. b. 30th Dec. 1887; Educ.: Baroda Coll. Advo-

cate, Bombay High Court, 1913; Fellow, Univs., Bombay and Barcda; M.L.A., Bombay, 1927-46; member: Working Cttee., Indian National Congress, 1930; A.I.C.C., 1930-36 and 1947; Secy., Congress Parly. Board, 1934; Home Min., Govt. of Bombay, 1937-39; member, Constituent Assembly of India and of its Drafting Cttee., Parliament, 1947-52; Agent Genl. to the Indian Govt., Hyderabad, 1948; Chairman, Instt. of Agriculture, Anand, since 1951; Trustee, Birla Educ. Trust and other trusts, since 1948; Food and Agriculture Min., Union Govt., 1950-52; Chairman, Sanskrit Vishwa Parishad, since 1951; Exec.-Chairman, Indian Law Instt., 1957-60; Vice-Pres., All-India Swatantra Party; imprisoned in the freedom movement. Publications: (Gujarati) & Over 50 books, incl. Novels, Plays, Essays, Memoirs; (English): Gujarat and its Literature; Bhagwad Gita and Modern Life; Creative Art of Life; Saga of Indian Sculpture; End of an Era—Hyderabad Memories; Warnings of History; Reconstruction of Society through Trusteeship; Foundations of Indian Culture; Krishnavatara Vols. I, II, III, IV, V, VI & VII; Indian Constitutional Documents, Vols. I & II, etc. Address: Bharatiya Vidya Bhavan, Chowpatty, Bombay.

MUNSHI, Srimati Lilawati, Chairman, The Women's Adv. Cttee. of Indian Std. Inst., 1967; Vice-Pres., Bharatiya Vidya Bhavan, Bombay, Delhi, Kanpur Gujarat, since their inception; Pres.: Bharatiya Sangit Shiksha Pith of Bharatiya Vidya Bhavan; All India Women's Central Food Council, New Delhi, 1950-67; and several other bodies; Vice-Pres.: National Council of Women in India, 1953-58; member, Small Scale Industries Board 1962-67; Senate, Sardar Vallabhbhai Vidyapith, since 1956 and its Syndicate, 1962-67; organised Swadeshi Market and was elected its Pres.; thrice imprisoned in the freedom movement; M.P. (Rajya Sabha), 1952-58; Chairman, Instt. of Catering Tech. and Applied Nutrition, 1963-67. Publications: Rekhachitro Ane Bija Lekha; Kumaradevi; Jeevamathi Jadeli: Rekha Chitro—Juna Ane Nava; miscellaneous articles and speeches. Address: Bharatiya Vidya Bhavan, Chowpatty, Bombay.

MURTHY, B. S., B.A., B.Ed., Minister of State for Health and Family Plng., Works, Housing & Urban Devpt., Govt. of India, since Feb. 18, 1969. b. Oct. 29, 1907; Educ.: Govt. Arts Coll. & Training Coll., Rajahmundry; Christian Coll. and Law Coll., Madras. Journalist; M.L.A., Madras, 1937; Parly. Secy. for Labour and Industry, Madras, 1937–39 and 1946–47; Chief Whip, Madras Leg. Congress Party, 1946–47; courted jail, 1940–42; member, Exec. Cttee., Gandhi Smarak Nidhi, since 1959; led Indian delegation to XI Intril Cfce. of Social Work held at Rio de Janeiro, 1962; Editor, the Navjivan—a Telugu weekly; M.P. Lok Sabha, since 1952; Pres., All-India Depressed Class League, 1959; visited: Europe & U.K., 1949; U.S.A. & Japan, 1962; Union Dy. Min.: C.D. and Co-op., 1962–66; Heatth & Family Planning, 1966–69. Publications: Revolt of Six Cross; Agony; Andhra Virakumar. Address: No. 5, Ashoka Road, New Delhi.

MURTHY, Onkar Srinivasa, B.A., B.E. (Hons.), A.M.I. Struct. E. (London), Padma Shri (1959), Chairman, Bharat Heavy Electricals Ltd., since Jan. 1969. b. June 26, 1911; Educ.: Madras. Selected to the I.R.S.E., March 1936; held various assignments in former G.I.P. Rly., till 1947; designed and completed construction of: Chittaranjan Locomotive Works, 1948-50; Integral Coach Factory, Perambur (Madras), 1951-56; Engineerin-Chief, Metre Gauge Factory and Locomotive Component Works, Varanasi, 1956-58; Dir., Plng., Rly. Board,

1958; responsible for formulation of the Railways' Five Year Plans; leader, Indian Delegation and Chairman to the meetings of Intnl. Std.s Org. Working Group, Dusseldorf, 1963, London, 1965; Gen. Manager: W. Rly., 1966-67; S. Rly., 1967-68. Publications: Paper on: Factory Project. Address: Bharat Heavy Electricals Ltd., 5, Parliament Street, New Delhi.

MURTHY, Ramanathpur Venkatesa, M.A., Editor, Records & Statistics. b. Nov. 12, 1906; Educ.: Mysore and Bombay. Joined the editorial staff of Commerce, March 1936; its editor till 1951; Chief Editor, The Bharat, 1951; Spl. Rep., Eastern Economist; broadcasts often from the A.I.R. on eco' subjects; is connected with many educational and cultural instt.s; is Vice-Pres., Press Guild of India. Publications: Has edited and published a number of specialised publications, including The History of Tech. Educ. in India and Industrial India; contributes to leading journals in India and abroad. Address: 5, Ratan Lodge, Bombay 19.

MURTINHO, Wladimir De Amaral, Ambassador of Brazil in India, since Dec. 6, 1969. b. 1919. Joined the Foreign Service, 1940; Third Secy. in Ottawa, 1945-46; Second Secy.: in Caracas, 1946-48 and Paris, 1951-53; First Secy. in Berne, 1953-56; Member: various delegations to International Conferences of U.N. & UNESCO; Director, Cultural Affairs, Ministry of Foreign Affairs, 1957-61; promoted Counsellor, 1952 and Minister, 1961; Minister Counsellor in Tokyo, 1961-63; Liaison Officer, External Affairs Min. with the Brazilian Parliament, 1963-69; Ambassador, Dec. 1966, in Charge of the Ministry of External Relations in Brasilia, D.F. Address: 8, Aurangzeb Road, New Delhi 11.

MUSAFIR, Giani Gurmukh Singh, M.P. (Rajya Sabha), Ex-Chief Minister, Punjab. b. Jan. 15, 1899; Educ.: Rawalpindi; Training Coll., Lahore. Took active part in Akali movement; Gen. Secy., S.G.P.C. and Shiromani Akali Dal; joined Congress, 1922; courted jail in freedom movement; member: A.I.C.C., since 1930; Constituent Assembly, 1947-52; Working Cttee., A.I.C.C., 1952-5½; Chairman: Jalianwala Bag Memorial; Mg. Cttee., since inception; Leader, Indian Writers' delegation to Afro-Asian Confee. in Baku, U.S.S.R., 1965; Publications: (English): Selected Poems—translated from Original in Punjabi; Short stories (Punjabi): Sasta Tamaha; Kandhan Bol Pahirjan; Allah Wale, etc.; (Hindi): EkNai Paise; Poetry (Punjabi): Prem Ban; Kav Saneh, Sehaj Seti, etc.; General (Hindi): Anand Marg; Gandhi Gita, etc. Address: 21, Ferozeshah Road, New Delhi 1.

MUTHIAH, M.Ct. (Muthiah Chidambaram Muthiah), Banker and Industrialist. b. Oct. 19, 1929; Educ.: Doon School, Dehra Dun; Allahabad Univ.; Chicago Univ. Chairman: Premier Fertilisers Ltd., United India Fire and General Insurance Co. Ltd., Madras; Trustee, Sir M.Ct. Muthiah Chettiar High School, Madras; Director: India Tourism Development Corpn. Ltd.; Ashoka Hotels Ltd.; Janpath Hotels Ltd.; Ritz Continental Hotels Ltd.; Polychem Ltd.; Mysore Paper Mills Ltd.; Travancore Rayons Ltd.; Indian Overseas Bank, etc.; Member: Cttee. of Management, Madras Race Club and Ootacamund Race Co. Ltd.; Exec. Cttee. Member, Southern India Chamber of Commerce and Industry. Address: 'Bedford House', Vepery, Madras 7.

MUTHIAH Chettiar of Chettinad, Dr. Rajah Sir Muthiah Annamalai, Kt., B.A., D.Litt., M.L.C., Pro-Chancellor, Annamalai Univ.; Chairman, South India Structural Corpn. Ltd., Madras. b. 1905; Educ.: Presidency Coll., Madras. Member: Indian Constituent Assembly, 1946–50; Chief Whip and Chairman, Justice Party; Mayor of Madras, 1932–33 and 1934–35; Educ. and Public Health Min., Madras and Pro-Chancellor, Madras Univ., 1936–37; Local Self-Govt. Min., Madras, 1937; Pres., Local Board, former Imperial Bank, Madras; Trustee, Pachaiyappa's Coll. Board, 1928–63; its Pres., 1942; Dir.: Pandyan Insce. Co. Ltd., Madurai; India Reinsurance Corpn. Ltd., Bombay; Madras Tube Co. Ltd., Madras; Binny & Co. Ltd., Madras, etc. Chairman: A. & F. Harvey Ltd., Madura; Madura Mills Co. Ltd., Madurai & Chettinad Cement Corpn. Ltd., Madras, etc. Address: Chettinad House, Rajah Annamalaipuram, Madras 28.

MUTHUSWAMY, M.\*, B.A., B.T., Minister for Local Administration, Tamil Nadu, since March 1967. b. 1929; Educ.: Namakkal. Elected M.L.A., Madras from Namakkal, 1967; arrested, tried and acquitted in the 1965 anti-Hindi agitation; had toured U.S.S.R. and other socialist countries as leader, delegation of the Madras City Corporation, July 1968; Chairman, Souvenir Cttee., World Tamil Conference, Jan. 1968. Address: "Ponni", Greenways Road, Adyar, Madras 28.

MYSORE, His Highness Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, G.C.S.I. (1945), G.C.B. (1946), LL.D. (1942), D.Litt. (1955), D. Lit. Queensland Univ. (Australia) 1963; Maharaja of. b. July 18, 1919; Educ.: Maharaja's Coll. Mysore; passed B.A. from Mysore Univ., 1938. Has travelled extensively in the Far East, Europe and East Africa, Australia and South America; went on lecture tour of U.S.A., 1959, 1960, 1961, 1962, 1963 and 1965; Raj Pramukh and subsequently Governor of Mysore State till May 1964; Governor of Madras, May '64-May '67; a Sanskrit scholar, his books and articles contain many original translations of works never before rendered into English. Publications: Dattatraya (An exposition of Vedantic Absolutism based on the teachings of Dattatraya on the confluence of religions of Brahma, Vishnu & Siva); The Gita and Indian Culture; Religion and Man; The Aesthetic Philosophy of India, etc. Address: The Palace, Mysore.

NADAL, H.E. Mr. Guillermo, Doctor in Law, Philosophy & Letters, Ambassador of Spain in India, since Feb. 26, 1969. b. Feb. 28, 1911; Educ. Palma de Mallorca, Palma (Spain); Univs. of Barcelona and Spain. Third Secy., Min. of Foreign Affairs, 1933-39; Second Secy., Spanish Legation, Berne, 1939, and Spanish Embassy, London, 1945; First Secy., Spanish Embassy, London, 1948; Second Chief, Inf. Deptt., Min. of Foreign Affairs, 1951; Counsellor of Spanish Embassy, Bonn, 1954; Dy. Dir., Cultural Deptt., Min. of Foreign Affairs, 1958; Min. Plenip. III Class, 1959; Consul-General at San Juan de Puerto Rico, 1961; Min. Plenip. II Class, 1962; Min-Counsellor, Spanish Embassy, New Delhi, 1964; Charge d'Affaires, a.i. of Spain, from time to time, for over two years; awarded Grand Cross and Knight Commander of the Spanish Order of the Civil Merit; Knight Commander of the Order of Merit of the German Federal Republic and several others. Publications: Translations from German and Russian to Catalan of Rilke, Thomas Mann, Pushkin, Tolstoi, Block, etc. Address: 12, Prithviraj Road, New Delhi 11.

NADKARNI, Laxmikant Madhavrao, B.A. (Hons.) (Bombay), M.Sc. (Econ.) (London), I.C.S., Chairman, Bombay Port Trust, since Sept. 1964. b. March 3, 1915; Educ.: Elphinstone Coll., Bombay; London School of Economics, London. Held important posts as Asstt.

<sup>\*</sup> It is reported that he has resigned.

Collector, Under-Secy., Collector, Dy. Secy., Govt. of Bombay, 1939–46; Secy. to the Governor of Bombay, 1948–52: Municipal Commr., Poona, 1952–55; Collector, Kolhapur/Bombay, 1956–57; Commr., Bombay Dvn., 1956–57; Jt. Secy., Min. of Defence & Min. of Home Affairs, Govt. of India, 1957–63; Adm. Officer/Chairman, Mormugao Port Trust, 1963–64. Publications: Mechanised Handling of Bulk Cargo, 1965; India's Developing Trade and Port Capacity, 1966; Impact of Devaluation on the Economy of Major Ports in India, 1966; National Integration & Industrial Enterprises, 1968. Address: North End, 7, Carmichael Road, Bombay 26.

NAG CHAUDHURI, Dr. Basanti Dulal, B.Sc. (Banaras), M.Sc. (Allahabad), Ph.D. (California), Member (Science), Planning Commission, since Oct. 3, 1967; is also in charge of Education, Health, Social Welfare, Housing, Urban Development and Construction Economics. b. Sept. 6, 1917; Educ.: Banaras Univ.; Allahabad Univ.; Univ. of California. Since 1942 was associated with the Univ. of Calcutta, as Lecturer, Reader and since 1953 as Professor; deputed by Calcutta Univ. to the Saha Institute of Nuclear Physics, 1951; was also Palit Professor of Physics; Director: N.R.D.C.; Saha Institute of Nuclear Physics, 1956–67; Chairman: National Bldg. Organisation; Physics Advy. Cttee, Deptt. of Atomic Energy. Publications: Several technical papers on various aspects of nuclear physics and plasma physics. Address: Planning Commission, New Delhi.

NAGENDRA, M.A. (English), M.A. (Hindi), D.Litt., Rasa Sidhanta (Sahitya Akademi Award 1965), Hindi Writer; Prof. & Head of the Deptt. of Hindi, Delhi Univ., since Sept. 1955. b. March 1915; Educ.: St. John's Coll., Agra. Dean, Faculty of Arts, Delhi, Univ., 1958-60; Pres., Bharatiya Hindi Parishad, 1960-62. Publications: Sumitranandan Pant; Adhunik Hindi Natak; Vichar aur Vishleshan; Adhunik Hindi Natuk i Mukhya Pravritiyan; Riti Kavya ki Bhumika: Bharatiya Kavya Aastha ke Charan; Kavya Bimb, etc.; Edited: Hindi Dhvanyaloka; Bharatiya Kavyashastra ki Parampara; Bharatiya Natya Sahitya; Hindi Sahitya ka Brihat Itihas; Indian Literature (English); etc. Address: Department of Hindi, University of Delhi, Delhi.

NAIDU, Gopalaswami Doraiswamy, M.I.S.E., A.S.M.E., M.S.A.E., Industrial Scientist. b. March 23, 1893. Founder, U.M.S. Transport Co.; inventor of many mechanical devices; often travelled round the world; member: American Society of Mechanical Engr.s, New York; Society of Automotive Engr.s, New York; All-India Manufacturers' Org.; Adviser: U.M.S. Radio Factory; U.M.S. Works; Universal Radiators; Pres., The Industrial Labour Welfare Assoc. Ltd. Address: "Gopal Bagh", Avanashi Road, Coimbatore 18.

NAIDU, Mopuri Reddeppa, Painter; Art Designer, All India Handloom Board (Weavers Service Centre), Madras Centre. b. Oct. 10, 1932; Educ.: P.R. Coll., Kakinada; Govt. School of Arts and Crafts, Madras. Govt. of India Research Scholar, 1960-62; won: National Award at National Exhibition of Art, New Delhi, 1962; Hyderabad Art Societies Gold Medal, 1966; Academy of Fine Arts Calcutta Award, 1966 and other awards; represented: the National Gallery of Modern Art, New Delhi; Govt. Collection at Kuala Lumpur, Malaya; Collection of Ministry of Educ., Govt. of India; exhibited IV Paris Biennale, Indian Contemporary Art now at London—1965; one man Shows at Hyderabad 1964 & '66. Address: 7, Perumal Naicken St., Purasawalkam, Madras 7.

NAIK, Vasantrao Phulsing, B.A., LL.B., Chief Min., Maharashtra State, since Dec. 5, 1963. b. July 1, 1913, at Gahuli, Yeotmal Dist.; Educ.: Neil City High School, Nagpur; B.A., Morris Coll.; LL.B., Univ. Coll. of Law, Nagpur; received Social Educ. Commemoration Certificate. Dy. Min. in the old M.P. Govt.; had been member, Vidarbha Pradesh Congress; Dir., M.P. Co-op. Central Bank, 1951-52; M.L.A., M.P. in 1952; was Dy. Min. for Revenue, M.P.; Chairman, former M.P. Housing Board; was also Dy. Chairman, M.P. Land Reforms Cttee.; was Chairman, Matric Cttee. appointed by the M.P. Govt.; Min. for Co-op., Bombay, 1956-57; Member, A.I.C.C.; Delegate to the Intnl. Rice Commn. and F.A.O. meetings at Tokyo (Japan), 1958; Min. for Agriculture and Aarey Milk Colony, Bombay State 1957-60; Min. for Revenue, Maharashtra State, 1960-63; Chairman; Cttee. on Democratic Decentralisation, 1960-61; Textile Control Adv. Cttee. Address: "Varsha", Mount Pleasant Road, Malabar Hill, Bombay 6.

NAIR, A.B., Editor, The Free Press Journal, Free Press Bulletin & Bharat Jyoti; Managing Director, Indian National Press (Bombay) Ltd. b. Aug. 30, 1906 in Nallepally, Kerala; Educ. Kerala. Joined the Norwegian Firm of Torleif Ahlsand, 1925; Ag. Consul for Norway, 1940–45; became Dir.-in-Charge, Free Press Journal, Oct. 1953; widely travelled; Pres.: Juhu Municipality; I.E.N.S., 1961–62; Chairman: P.T.I., 1962–63; Press Accreditation Cttee., Maharashtra; member: Bombay Mun. Corpn.; Standing Cttee., A.I.N.E.C.; Advisory Cttee. for formation of Press Council; Indian Merchants' Chamber, Bombay; Vice-Pres., Society for the Prevention of Heart Diseases & Rehabilitation, etc.; Sheriff of Bombay, 1963–64; Delegate to: National Integration Confee., 1961; Seminar on Human Rights & Freedom of Information under the aegis of the U.N., 1962; is actively associated with social, educational and cultural activities. Address: R-108, Theosophical Colony, Juhu, Bombay 54.

NAIR, N. Sreekantan, M.A., M.P., Politician and Trade Unionist; Member, Central Secretariat of the R.S.P.; Pres., AIUTUC., since 1959. b. June 14, 1915; Educ.: Arts Coll., Trivandrum. Jt. Secy., All-Travancore Youth League, 1936-40; joined Travancore State Congress (1938); convicted several times during 1938-52 for political offences; Working Cttee. Member, Trav. State Congress, 1942-46; joined Congress Socialist Party, 1946; started the Kerala Socialist Party, Sept. 1947; merged into the R.S.P., 1950; M.P. (Lok Sabha), 1952-57; Gen. Secy., R.S.P., 1953-57; elected. M.P. from Quilon, 1962 & 1967. Publications: The Chinese Puzzle—English; several literary and political treatises in Malayalam. Address: 'Janaky Sadanam', Ambalapuzha, Kerala State; Office: Revolutionary Socialist Party, Kerala Committee Office, Quilon, Kerala.

NAIR, Palat Govindan, B.A. (Hons.) (Oxon). I.C.S., Secretary, Deptt. of Expenditure, Min. of Finalce, Govt. of India, since Nov. 1965. b. Say 20, 1916; Educ. Presy. Coll., Madras; Christ Church, Oxford. Joined the I.C.S., 1937; Dy. Seey., and Jt. Seey., Min. of Commerce, 1952-56; Jt. Seey., Min. of Finance, 1956-57; Economic Min., Embassy of India, Washington, 1957-61; Jt. Seey., Min. of Finance, 1963-65; Dir. General, Bureau of Public Enterprises, 1967-69. Address: B-8, Wellesley Road, New Delhi 11.

NAIR, R. Madhavan, B.A., Padma Bhushan (1969), Editor, The Tribune, Chandigarh, since 1962. b. Jan. 26, 1916; Educ.: Maharajah's Coll. of Arts, Trivandrum-Asstt. Editor, Roy's Weekly New Delhi, 1939-45; News Editor, API, New Delhi, 1945-47; Chief Asstt. Editor, Pioneer, Lucknow, 1947-62. Publications: The Tribune. Address: Editor, The Tribune, Chandigarh 20.

NAKUL SEN, B.A. (Hons.), I.C.S., Lt. Governor of Goa, Daman & Diu and Administrator, Dadra and Nagar Haveli, since April 18, 1967. b. Aug. 14, 1910; Educ.; Govt. High School & Hindu Coll., Delhi. Joined the I.C.S., 1935 as Asstt. Commr.; held several posts incl. Collector, Sialkot, Lyallpur, Amritsar and Ambala, Jt. Secy., Min. of Rehab., Commr., Jullundur Dvn., till he became Chief Secy., Govt. of Punjab, Jan. 1956; Fin. Commr., Revenue, and Secy., Revenue, Excise and Taxation, Forests and Game Preservation Deptts., 1957; Jt. Secy., Min. of Transport and Communications (Deptt. of Transport) upto Feb. 1961; O.S.D., Min. of Ind. & Commerce upto April 1961; Chairman & Mg. Dir., Indian Drugs & Pharmaceuticals Ltd., 1961-64; Secretary, Deptt. of Chemicals, Min. of Petroleum & Chemicals, 1964-66; Secy., Deptt. of Social Welfare 1966-67. Address: Cabo Raj Niwas, Caranzalem, Goa.

NAMBOODIRIPAD, E. M. S., Ex-Chief Minister, Kerala State; Gen. Secy., C.P.I.(M). b. June 14, 1909; Educ.: St. Thomas' Coll., Trichur. Joined 1932 C.D.; formed along with others Congress Socialist Party in Kerala, 1934; joined C.P.I. later; Secy., Kerala Provincial Congress, 1938-40; Congress M.L.A., Madras, 1939-40; Member, Central Cttee., C.P.I. from 1941; Member, Politbureau, from 1950; Actg. Gen. Secy., June-Dec. 1953, July-Dec. 1954 and 1955-56; elected M.L.A., Kerala in the Gen. Election 1957; Chief Min., Kerala, 1957-59; elected to Kerala Leg., 1960, '65 and 1967; Gen. Secy. C.P.I., 1962-63; detained under D.I.R., Feb. 1, 1966. Publications: Many books in Malayalam and in English; Short Story of Peasant Movement in Kerala; Peasant Question in Kerala; National Question of Kerala; On Agrarian Question; Food, Achilles Heel; Peasant in National Reconstruction; Two Policies on Agrarian Question; Social Democracy and Communism; On Organisation: The Mahatma and The Ism (in English); Economics & Politics of India's Socialist Pattern; India Under Cong. Rule; Kerala—Yesterday, Today and Tomorrow. Address: Plot 10, Nandavaram Housing Colony, Trivandrum, Kerala State.

NANAVATI, Shavak Kaikhushru, Met. Engineer and Industrialist. b. Sept. 17, 1906 at Bombay; Educ.: Bombay, Banaras and Sheffield (U.K.); Brunton Medallist (Sheffield Univ.); Master of Metallurgy (Honoris Causa), Sheffield Univ. Mg. Director, Tata Iron & Steel Co. Director: Tata Industries Pvt. Ltd., Indian Tube Co. Ltd., The Tinplate Co. of India Ltd., Belpahar Refractories Ltd., Eagle Rolling Mills Ltd. etc.; Chairman: Tata Yodogawa Ltd., Tata-Robins-Fraser Ltd., West Bokaro Ltd.; Fellow, Institution of Metallurgists, London; Founder-Member, Indian Institute of Metals; also Past-Pres. (1959-60); Mem., Govt. of India Tech. Mission, U.S.S.R. (1955) for Bhilai Steel Plant; represented Employers' Federation of India, 1957 I.L.O. Conference, Monterrey, Mexico. Address: Residence—3, C. Road, East, Jamshedpur 1; Office—The Tata Iron & Steel Co. Ltd., Jamshedpur.

NANDA, Gulzari Lal, M.A., LL.B., Minister for Railways, Govt. of India, since Feb. 18, 1970. b. July 4, 1898. Joined, the N.C. movement 1921; Prof. of Economics, National Coll. Bombay; Secy., Textile Labour Assoc., Ahmedabad, 1922–46; member, National Plng. Cttee.; imprisoned for Satyagraha, 1932, 1942–44; Parl. Secy., Govt. of Bombay (Labour & Excise), 1937–39; Labour & Housing Min., Govt. of Bombay, 1946–50;

Trustee, Kasturba Memorial Trust; Secy., Hindustan Mazdoor Sevak Sangh; Chairman: Bombay Housing Board. 1946-48; Stg. Cttee., Ahmedabad Municipality, 1940-42; largely instrumental in organising I.N.T.U.C., May 1947; Dy. Chairman, Plng. Commn., 1950-51 & 1960-63; Plng. Min., 1951-52; elected member, Eco. Programme Cttee. of the A.I.C.C.; Leader, Indian Delegation to the Colombo Plan Consultative Cttee., Singapore, 1955; the I.L.C. held at Geneva, 1959; Chairman: Bharat Sevak Samaj; Adv. Cttee., Bharat Sadhu Samaj; Min. of Plng., Irrigation and Power, 1952-57; Min. for Plng., Labour and Employment, 1957-63; visited W. Germany, Yugoslavia and Austria, 1959; initiated Congress Forum for Socialist Action, May 13, 1962; Union Min. for Labour and Employment, 1962-63; acted as Prime Minister of India, May 27-June 11, 1965 and Jan. 11-24, 1966; Min. for Home Affairs, Govt. of India, 1963-66; Founder Pres., Navjeevan Sangh; ex-Pres., I.N.T.U.C. Publications: Some Aspects of Khadi; History of Wage Adjustment in the Ahmedabad Textile Industry; Approach to the Second Five Year Plan: Some Basic Considerations (Aug. 1955). Address: Minister for Railways, Government of India, New Delhi.

NANDA, Harparshad, B.Sc., Industrialist. b. Jane 9, 1918; Educ.: Christian Coll., Lahore. Pres., Escorts Ltd.; Dir. and Chairman: Sharpedge Ltd.; Escorts Transmission Ltd.; Managing Dir., Harprashad & Co. P. Ltd.; Governing Dir., Goetze (India) Ltd.; Dir.: Punjab State Industrial Devpt. Corpn. Ltd.; Hindustan Shipyard Ltd., etc.; Export Credit & Guarantee Corpn. Ltd.; Pres. and Chairman: Escorts Tractors Ltd.; Standing Cttee. for Ship Building, Ship Repairs and Ancillaries. Min. of Transport & Shipping; Pres., Indo-Polish Chamber of Commerce and Industry; Vice-Pres., Indian Council of Foreign Trade; Vice-Chairman, Thomson Press India Ltd.; Cttee. Member, F.I.C.C. & I.; Member: National Research & Dvpt. Corpn., Inventions Promotion Board. Address: 12, Jorbagh, New Delhi.

NANDA, Admiral Sardarilal Mathradas, I.D.C.; Ati Vishist Seva Medal (1962) and Param Vishist Seva Medal (1966), Chief of the Naval Staff, since Feb. 28, 1970; b. Oct. 10, 1915. Educ.: Karachi; Imperial Defence Coll., London, 1961. Served with the Port Trust; joined the R.I.N.V.R., 1941; joined INS DELHI in U.K., 1948; Director, Personal Services, Naval Hqrs., 1949-51; commanded the Destroyer RANJIT; appointed Chief of Personnel in the rank of Commodore; commissioned the Cruiser INS MYSORE in U.K. 1957; Director-General, Naval Dockyard Expansion Scheme, Bombay 1958-60; Chief of Material, Naval Hqrs., New Delhi, 1962; promoted Rear Admiral and appointed Deputy Chief of Naval Staff, 1962-64; Managing Dir., Mazagon Docks, 1964-66; Flag Officer Commanding, Indian Fleet, 1966-68; Flag Officer Commanding, Indian Fleet, Naval Command, 1968-70. Address: Naval Headquarters, New Delhi 11.

NARAIN, Govind, B.Sc. (Hons.), M.Sc., I.C.S., Secretary to the Govt. of India, Min. of Defence, Deptt. of Defence Production, since Nov. 1968; Chairman, Mazagon Dock Ltd., Feb. 1969–Jan. 70. b. May 5, 1917; Educ.: A.P. Mission High School, Mainpuri; Govt. Intermediate Coll., Etawah; Allahabad Univ.; Balliol Coll., Oxford. Several posts held till he became Home Secy., U.P. Govt., 1948–51; Adviser-cum-Secy. to H.M. the King of Nepal, 1951–54; Secy. to U.P. Govt., P.W.D., Power & Information Deptts., 1954–55; Devpt. Commr. and Secy. to Govt., U.P., Plng., Eco. & Statistics & Information Dept., 1955–58; Chief Secy., U.P. Govt., 1958–61, also Commr., Uttarakhand Dvn.; Mg. Dir.,

S.T.C. of India, 1961-63; Chairman: S.T.C. of India, May-Oct. 1963; Minerals and Metals Trading Corpn. of India Ltd., 1963-66; Adviser to the Governor of Kerala, Jan.-April 1965; Seey., Dept. of Family Plng., Min. of Health & Family Plng., Govt. of India, March-Dec. 1966; Seey., Min. of Health, Family Plnning and Urban Devpt., 1966-68. Publications: Series of 8 talks on Community Devpt. and Five Year Plans. Address: 2B, Wellesley Road, New Delhi.

NARASIMHAN, Gopalan, B.A. (Hons.), Mg. Editor, The Hindu, since 1959 & Mg. Dir. & Chairman, Kasturi & Sons Ltd. (Publishers of The Hindu). b. Feb. 28, 1916; Educ.: Presidency Coll., Madras. Manager, The Hindu, 1937–59; Pres., Indian & Eastern Newspaper Society, 1956–57; Chairman: Audit Bureau of Circulations of India, 1958–59; Indian Section of the International Press Institute from 1959; Press Institute of India from 1963. Address: Kasturi Bldgs., 201-A, Mount Road, Madras 2.

NARAYAN, Jayaprakash, Sarvodaya leader. b. Oct. 11, 1902; Educ.: Bihar and U.S.A. Founder Secy., Socialist Party (India); Head of Labour Dept., Indian National Congress, 1931; imprisoned several times; was member, Congress Working Cttee.; resigned membership due to difference of opinion; Ex-Pres., All-India Railwaymen's Federation, also Pres., All India P. & T. Employees' Union and the All India Ordnance Employees' Fed.; Pres., Assoc. of Voluntary Agencies for Rural Devpt.; Presided over the Afro-Asian Convention on Tibet, 1960; elected Pres., All-India Panchayat Parishad; a Chairman, World Peace Brigade; founder and Chairman, India-Pakistan Reconciliation Group, 1962; Dir., Gandhian Instt. of Studies; member, Nagaland Peace Mission; Chairman, Report on the welfare of the weaker section; winner of Ramon Magsaysay Award for public service 1965. Address: Kadam Kuan, Patna 3, Bihar.

NARAYAN, Rasipuram Krishnaswamy, B.A. (Mysore), Padma Bhushan (1964), Doctor of Letters (Leeds), Aug. 1967, Author. b. Oct. 10, 1906; Educ.: Christian Coll., Madras; Maharaja's High School and Maharaj's Coll., Mysore. Publications: Novels in English:—Swami and Friends; The Bachelor of Arts; The Dark Room; The English Teacher; Teacher; An Astrologer's Day; Mr. Sampath; The Financial Expert; Waiting for the Mahatma; The Guide; Gods, Demons and Others—republished in the United States and translated into French, German and other European languages; The Man-Eater of Malgudi; collections of short stories contributed to important Indian and foreign journals. Address: Yadavagiri, Mysore 2.

NARAYAN, Shriman, M.A. (English), M.A. (Econ.), Governor, Gujarat State, since Dec. 26, 1967. b. June 15, 1912; Educ.: A. P. Mission High School, Mainpuri; Agra Coll., Agra; Allahabad Univ. Undertook world tour to propagate Gandhian ideology, 1949; Gen. Secy., Indian National Congress and Chief Editor. A.I.C.C. Econ. Review, 1952-58; member, All-India Khadi and Village Industries Commn., 1956-59; Pres., All-India Nature-Cure Assoc., 1960-64; Trustee, Gandhi Memorial Fund; Editor, Gandhi Marg (Hindi); member, Plng. Commn., 1958-64; Ambassador to Nepal, Nov. 1964-Dec. 1967. Publications: Gandhian Plan of Economic Devpt. for India; Gandhian Constitution for Free India; One Week With Vinoba; Towards a Socialistic Economy; Socialist Pattern of Society; India and China; Principles of Gandhian Plng.; Socialism in Indian Plng.; Tragedy of a Wall; On Education; Letters from Gandhi, Nehru and Vinoba; Gandhi: The Man and His Thought; Towards Better

Education; India & Nepal: An Exercise in Open Diplomacy; and several others; Hindi: Amar Asha; Manaw; Jugnoo; Rajni-men-Prabhat-ka-Ankur; Satyameva Jayate—Gandhi Marg Ki Or. Address: Raj Bhavan, Ahmedabad.

NARAYANAN, K.P., M.A. (Madras), Editor, Madhya Pradesh Chronicle, English Daily, Bhopal; Rep. of The Hindu (Madras), at Bhopal. b. June 14, 1909; Educ.; St. Thomas' Coll., Trichur; Presidency Coll., Madras, Member, Stg. Cttee. of A.I.N.E.C. and of Prov. Pres. Adv. Cttee., for number of years; former Editor, Nagpur Times; Pres.: Working Journalists' Union, M.P.; M.P. Branch of Editors' Cfee., 1953; Jt. author of book, "Journalism in Modern India", edited by Prof. Wolseley. Address: Gitanjali, S. N. 6, Civil Lines, Bhopal.

NARENDRA KUMAR, M.A. (Punjab), Editor, Daily Pratap, and Vir Arjun, New Delhi. b. April 24, 1914; Educ.: Govt. Coll., Forman Christian Coll., and Law Coll., Lahore. Joined the Pratap, 1939; travelled widely in U.S.A., Europe, Malaysia, Taiwan, Israel, Viet-Nam and other countries. Address: 6, Keeling Road, New Delhi.

NARIELWALA, Phirozeshah Ardeshir. Industrialist. b. June 6, 1900 at Bombay; Educ.: India, U.K. Chairman: Ceat Tyres of India Ltd.; Scientific Panel for Mechanical Plants and Minor Crops, I.C.A.R. New Delhi; Inter-National Cultural Centre, New Delhi; etc. Dir.: Tata Industries Pvt. Ltd., Rallis India Ltd., Voltas Ltd., etc.; Pres., Federation of Indian Export Organisa-Fairs & Exhibitions, Bombay; Member: Indian Council of Trade Fairs & Exhibitions, Bombay; Member: Indian Institute of Foreign Trade, New Delhi; Indian Council of World Affairs, New Delhi; Indian Council of Arbitration, New Delhi; Tata Institute of Social Sciences, Bombay; Tata Memorial Centre, Bombay; Indian Cancer Society, Bombay, etc.; Trustee: Prime Minister's National Relief Fund, New Delhi; Jawaharlal Nehru Memorial Fund, New Delhi; Kamala Nehru Memorial Hospital, Allahabad, etc. Address: Office: Tata Industries Pvt. Ltd., Jeevan Tara, Parliament Street, New Delhi; Residence: 23A, Prithviraj Road, New Delhi.

NARLIKAR, Dr. Jayant Vishnu, M.A., Adams Prize of Cambridge Univ., May 5, 1967, Ph.D. (Cantab.), Padma Bhushan (1965), Staff Member, Institute of Theoretical Astronomy, University of Cambridge; Fellow, King's Coll., Cambridge; Scientist. b. July 19, 1938; Educ.: The Univ. Children's School, Varanasi; Banaras Hindu Univ.; Cambridge Univ. Admitted to Fitzwilliam House, Cambridge, 1957; elected Berry-Ramsey Fellow of King's Coll., Jan. 1963; awarded the Tyson Medal, 1960 and the Smith's Prize, 1962 by Cambridge Univ.; Tata Scholar, 1957-63; elected Fellow of the Royal Astronomical Soc., 1963; awarded Padma Bhushan by the Govt. of India, 1965. Publications: Scientific papers in the Proceedings of the Royal Society, the Monthly Notices of the Royal Astronomical Society, Nature, The Astrophysical Journal, Observatory etc. Address: King College, Cambridge, U.K.

NATH, Prof. Dr. Madhab Chandra, D.Sc., F.N.I., F.R.I.C., F.I.C., Chitnavis Prof. and Head of Biochemistry Deptt., Nagpur Univ., Nagpur, since 1946. b. Oct. 1905 at Hashara, Dacca; Educ.: Jagannath Intermediate Coll., Dacca; Univ. of Dacca; Lady Tata Memorial Scholar, 1934-37; Elliot Prize for Chemistry for 1941 by the Royal Asiatic Society of Bengal; Pres., Physiology Sect., Indian Sc. Congress Session, 1964; Watumull Memorial Prize for 1964 in Biochemistry; visited U.S.S.R. Biochemical Instts., Mar.-April 1965 under the Indo-Soviet Cultural Exchange Programme. Publications: 237

original papers on various problems of Biochemical importance published in India and outside; Carbohydrate metabolism with special reference to the cause, prevention and treatment of diabetes; Biosynthesis of Vitamins; Steroids, Enzymes, Nutrition Lipid Metabolism with Special reference to experimental atherosclerosis etc., etc. Address: Nagpur University, Nagpur.

NAYAR, M. K. K., B.A., I.A.S., Managing Director, Fertilisers & Chemicals Travancore Ltd. (FACT), since 1960. b. Dec. 29, 1920; Educ. : Maharaja's Coll. of Science, Trivandrum. Entering service as Manager, Travancore Telephones Deptt., in 1941, held posts in the Defence Deptt. & Madras State till he became Deputy Secy., Min. of Commerce and Industry, Govt. of India; Dy. General Manager, Bhilai Steel Plant, 1956-59; General Manager, FACT, 1959-60; Chairman: Kerala Kalamandalam; Kerala State Productivity Council; Pres., Kerala Institute of Management: Director: Travancore Cochin Chemicals: Travancore Titanium Products; Fertilizer Assocn. of India Ltd., etc.; widely travelled abroad; represented India at UN Industrial Development Organisation meeting at Vienna, 1968; is an authority on Kathakali. Address: Managing Director, FACT Ltd., Udyogmandal, Kerala.

NAYAR, Padinharankunnath Thazhathayil Raman, B.A., B.L., I.C.S., Chief Justice of Kerala, since June 12, 1969. b. Jan. 14, 1910; Educ.: St. Joseph's High School, Calicut; Presidency Coll. and Law Coll., Madras; St. Catharine's Coll., Cambridge. Joined the I.C.S., Oct. 9, 1934 and allotted to the Madras cadre; Dist. and Sessions Judge, 1944-50; Joint Secy., Min. of Law, 1950-51; Judge, Kerala High Court, 22nd February 1957-69. Address: Chief Justice, Kerala High Court, Cochin-11.

NAYUDAMMA, Dr. Yelavarthy, B.Sc. (Industrial Chemistry) (Banaras), M.Sc., Ph.D. (Chem.) (Lehigh), F.I.C. (India), Fellow: Indian Academy of Sciences; Indian Standards Institution, Dir., Central Leather Research Instt. b. Sept. 10, 1922; Educ.: Banaras Hindu Univ., Lehigh Univ., U.S.; Coll. of Leather Tech., Northampton, England. Actively participated in the various Cfces. of the Intn. Society of Leather Trade's Chemists; Hony. Prof., Leather Tech., Madras Univ.; member: Board of Studies, connected with tech. educ.; Board of Scientific and Industrial Research; Board of Governors, I.I.T .; Commission on Quality Control & Standardisation of Production, Small Scale Sector, etc.; Chairman: Board of Visitors, Instt. of Leather Tech., Madras; Leather Sectional Cttee., Indian Stds. Instt.; Adv., Indian Investment Centre; Consultant to the F.A.O.; Editor, Leather Science. Publications: Over 325 publications. Address: Director, Central Leather Research Institute, Adyar, Madras 20.

NEDUNCHEZHIYAN, V. R., M.A., Minister for Edfaction and Health, Tamil Nadu, since Aug. 13, 1969. b. July 11, 1620 at Vadakalathur in Thanjavur Dist.; Educ.: Pattukottai Board High School; Annamalai Univ. Was in Dravida Kazhagam, 1944-49; assisted Annadurai in forming the D.M.K. and its founder-member; Asstt. Gen. Secy., D.M.K., 1949-55; Gen. Secy., 1955-60; Chairman, Party's General Council, since 1960; courted imprisonment several times in his public life; elected M.L.A., Madras from the Triplicane constituency, 1962 and 1967; was Leader of the Opposition in the Leg. Assembly 1962-67; was Chairman, Public Accounts Cttee. and member, Extimates Cttee., 1962-67; was Editor, Nam Nadu, the party daily for about nine years; author of many books in Tamil; delegate

to the World Tamil Confee., Kuala Lumpur, 1966; was Vice-Chairman, Second Intn'l. Cfce.—Seminar of Tamil Studies, Madras, 1968; Min. for Education & Industries, Tamil Nadu, 1967-69. Address: Minister for Education, Fort St. George, Madras 9; "Minerva", 40, Santhome High Road, Madras 28.

NEFF, A. G., General Manager, Esso India, since Aug. 1968, b. Dec. 7, 1920; Educ.: B.Sc., Harvard Univ., Cambridge, Mass., U.S.A. In oil business for last 23 years; came first to India, 1946 and held a series of marketing positions in India and Ceylon; General Manager, Marketing, Esso S.A.P.A. in Argentina; Asstt. Executive Representative for International Petroleum, Colombia, July 1965-July 1968. Address: Esso Building, 17 Jamshedji Tata Road, Bombay-20.

NEHRU, Braj Kumar, B.Sc. (Allahabad), B.Sc. (Econ.) (London), Bar-at-Law, I.C.S., Governor of Assam and Nagaland, since April 1968. b. Sept. 4, 1909; Educ.: Allahabad Univ.; London School of Economics, Balliol Coll., Oxford; Inner Temple. Joined the I.C.S., 1934; Hon. Lit.D., Missouri Valley Coll., Miss., 1963; Hon. Litt. D., Jacksonville U., Florida, 1964. Held important positions in Punjab & Govt. of India from 1934 till he became Jt. Secy., 1947; Exec. Dir., I.B.R.D., and Min., Indian Embassy, Washington, 1949-54; Jt. Secy., Dept. of Eco. Affairs, 1954-57; Secy., 1957-58; Commr. Gen. for Eco. Affairs, Washington, 1958-61; Amb. to U.S.A., 1961-68; member: U.N. Investments Cttee., since 1961; Indian rep. at: Commonwealth Fin. Ministers' Cfce., 1949-50, 1955-56, 1958; U.N. Gen. Assembly, 1949-52, 1960; F.A.O., 1949-50; Bandung Cfce., 1955, etc. Publications: Speaking of India. Address: Shillong.

NEOG, Dr. Maheswar, B.A. Hons. (English) (Calcutta), M.A.\* First Class First (Calcutta), D. Phil. (Gauhati), Poet, essayist, art and literary critic; Jawaharlal Nehru Prof., Gauhati Univ., since July 1957. b. 1918; Educ.: Sibsagar, North Lakhimpur, Jorhat, Gauhati Cotton Coll. Member: Gen. Council, Central Sangeet Natak Akademi, Central Sahitya Akademi, Exec. Cttee., All India Oriental Cfoe.; Pres., All-Assam Buddhist Assocn.; Editor, The Journal of the Univ. of Gauhati; Editor and compiler of anthologies of Assamese poetry and folk songs. Publications: Sankaradeva (literary biography); Sankaradeva and His Times (English); critical editions of old Assamese texts Bhaktipradipa, Kirtanaghosha, etc.; author, Asamiya Gitisahitya; The Art of Painting in Assam; Asamiya Sahityar Ruparekha. Address: 6, University Campus, Gauhati University, Gauhati 14, Assam.

NIJALINGAPPA, Siddavvanahalli, B.A., e. LL.B., President, Indian National Congress (Organisation). b. Dec. 10, 1902; Educ.: Central Coll., Bangalore and Law Coll., Poona. Enrolled as Advocate of the Mysore High Court, 1926; joined Indian National Congress, 1924; political prisoner, 1939; debarred from practice, 1940; political detenu, 1942, 1944 and 1947; member, Mysore Congress Working Cttee., 1939-51; Pres.: Mysore P.C.C., 1945-46 & 1960-62; Karnataka P.C.C., 1946-54; member, Working Cttee. and Parly. Board, Indian National Congress, 1948-53; Constituent Assembly, 1946-52; M.P., 1952-56; Mysore Constituent Assembly, 1948-50; elected Leader, Mysore Leg. Congress Party, Oct. 21, 1956; Chief Min., Mysore State, 1956-58; Chairman, Indian Oil Co. Ltd., unto Dec. 1962; elected Leader, Cong. Leg. Party, June 1962; Chief Min., Mysore State, 1962-68; elected M.L.A., unopposed, 1967. Address: New Delhi.

NIMBKAR, Mrs. Kamala Vishnu, B.A. (Columbia), F.T.C. (Froebel Union—London), O.T.R. (American Occupation Therapy Assoc.), Social Worker in the field of Occupational Therapy and Rehab. of the Handicapped. b. Jan. 5, 1900; Educ.: George School (Quaker Prep. School), Drexel Instt. (Phila.); Barnard Coll. of Columbia Univ.; Selly Oak Coll., Froebell Cert. (Birmingham, Eng.); Phila. School of Occupational Therapy. Member: Advisory Boards, Special Emp. Exchange, Bombay and Rehab. Centre, C.T.I., Bombay and Adv. to the Govt. of Maharashtra for Occupational Therapy and Rehab.; Social Welfare Directorate since 1958; Editor: Journal of Rehabilitation in Asia, since 1959; Secy., Gen. Ind. Soc. for Rehab. of the Handicapped; Delegate, All India Occupational Therapy Assocn. to World Federation, O.T.; received the 1965 Intal. Award from the Spanish National Assoc. of Civilian Handicapped: Occupational Therapy for Medical Conditions and What the Doctor should expect of an Occupational Therapist. Address: The Amerind, 15th Road, Khar, Bombay 52.

NIMBKAR, Vishnu Ramchandra, B.Sc., M.E. (N.Y. Univ.), M.A.S.M.E. (U.S.A.), Chartered Mech. Enggr., London, incorporating A.I.Loco.E., Chartered Mech. Engineer & Industrialist. b. June, 25, 1900; Educ.: New High School, Bombay; Deccan Coll., Poona; New York Univ.; Columbia Univ. Service Engr., Consolidated Pneumatic Tool Co. Ltd., Bombay, 1929–32; Manager for Bombay, 1932–34; Ag. Gen. Manager for India, 1939–42; Resident Gen. Manager, 1943; Gen. Manager for India & Pakistan, 1948–57; Mg. Dir., Consolidated Pneumatic Tools Co. Ltd., 1957–58; Director & Chairman, Bombay Potteries & Tiles Co. Ltd.; Mg. Dir., Hindustan Mineral Products Co. P. Ltd., Bombay and Pulco Foundries P. Ltd., Belgaum; Director, Fuel Injections Ltd., Kelvinator of India Ltd., Kirloskar Oil Engines Itd., Ogale Glass Works Ltd., Standard Batteries Ltd. and several other companies. Address: The Amerind, 15th Road, Khar, Bombay 52.

NORD, H.E. Mr. Haakon, Cand. jur., Officer of the Royal Order of St. Olav (1958), GC. Lib.O., GC. Tun. Rep. O., GC.M. Ouissam Alaouite, Amb. of Norway in India, concurrently accredited to Rangoon and Colombo, since 1964. b. July 21, 1911; Educ.: Univ. of Oslo. Joined Norwegian Foreign Service, 1938; various postings including post of Permanent Rep. to the Council of Europe, 1938-58; Min., later Amb. to Morocco, 1954-58; jointly accredited at Tunis, Algiers and Tananarive. Address: Royal Norwegian Embassy, New Delhi-11.

NORGAY, Sherpa Tenzing, Padma Bhushan (1959), Mountaineer, Dir. of Field Training, The Himalayan Mountaineering Instt., Darjeeling. b. 1914, in Eastern Nepal. Participated in several expeditions; conquered the summit of Mount Everest with the New Zealand mountaineer Sir Edmund Hillary under the leadership of Sir John Hunt of the British Expedition, May 29, 1953; Nepal Pratap Bardat (reached 28,215 ft. with Raymond Lumbard without oxygen, 1952) and Nepal 'Tara I' (1953); George Medal by Queen Elizabeth; Iran's highest sports medal by the Shah of Iran and gold medal by Dr. Rajendra Prasad, President of India for his achievement in the Everest Expedition; U.S. Hubbard Medal, 1954; the highest medal for outstanding achievement in the fields of sports by the Union of Sports Societies of the Soviet Union in 1962; Tiger Medal by Himalayan Club, Calcutta (1938) the first award for reaching 27,500 feet without oxygen under the leadership of Tillman. Address: Darjeeling, West Bengal.

OAK, Mr. Justice Vidyadhar Govind, B.Sc. (Hons.), I.C.S., Chief Justice, High Court, Allahabad, since June 4, 1967. b. May 18, 1909; Educ.: Jaipur, Indore, Allahabad; passed B.Sc. (Hons.), 1929. Joined I.C.S., 1931; served in U.P. as Jt. Magistrate and as Dist. Judge; Judge, Allahabad High Court, 1955-67. Address: High Court, Allahabad.

OWUSU-Ansah, H.E. Mr. P. K., High Commissioner for Ghana to India, since April 1970. b. 1936; Educ.: Studied Law, called to the Bar by the Society of Lincoln's Inn., London, 1961; graduated from London School of Economics and Political Science, 1962. In private practice as Barrister-at-Law and Solicitor, Supreme Court of Ghana, 1962-70; has been closely associated with cultural and educational activities; holds office in various organisations; was member, Ghanaian Constituent Assembly. Address: 2, Golf Links, New Delhi 3.

PAI, Nath, B.A., Bar-at-Law, M.P. (Lok Sabha), Political worker. b. Sept. 1924; Educ.: Vengurla, Belgaum, Poona and London. Courted jail in the Freedom Movement; worked in the Congress Youth Movement and Student Movement: joined the first Goa Freedom Movement, 1946; founded the Indian Socialist Group in London; elected Pres.: London Majlis, 1950 & 1951; Socialist Youth Intnl. at Copenhagen, 1954; worked in the 2nd Goa Movement, 1955; elected to the Lok Sabha, since 1957; led Central Govt. employees in the 1957 strike; joined the P.S.P. National Exec., 1957; Indian rep. at Warsaw I.P.U. Cfce.; jailed again for leading the Central Govt. Strike, 1960. Address: 29, Shah Nagar, New Delhi; Sir J. J. School of Art Bungalow, Bombay 1.

PAI, Mrs. Shirish Vyankatesh, B.A., Ll.B. (Bombay), Editor, Maratha, Sanj Maratha and Navyug (Annual). b. Nov. 15, 1929; Educ.: Nasik, Poona and Bombay. Is a dramatist, poetess, producer and director of plays; won the Maharashtra Govt. First Prize for best poetry (1969); writes short stories and essays; is a leading critic of literary works. Publications: Chaitrapalavi, Sukhswapna, Mayurpankh, Hapoosche, Ambe, Mangalsutra, Khadakchnfa, Kanchambahar, Sandhiprakash (Collections of short stories); Kasturi, Aaichi Gani, Ettari, Eka Pawsalyant (Collections of poems); Sonyachi Khan, Hakhel Sawalyancha (Plays); Priyajan (Profiles). Address: 'Premshobha', Keluskar Road, Bombay 28.

PAI, Tonse Ananth, B.Com., Chairman, L.I.C. of India, since March 2, 1970. b. Jan. 17, 1922; Educ.: Sydenham Coll. of Commerce and Economics, Bombay. Joined Syndicate Bank as Dy. Manager, 1943; Gen. Manager, 1944-62; Mg. Director, Jan.\*'62 to Dec. '64; first Chairman, Food Corpn. of India, 1965-66; rejoined Syndicate Bank as Mg. Dir., 1966; Chairman and Mg. Dir. since Dec. 1967; Pres., S. Kanara Dist. Congress Cttee.; mem.: Mysore P.C.C.; A.I.C.C.; Madras and Mysore Assemblies between 1952-57; National Credit Council, G.O.I.; Ind. Inst. of Bankers, Bomeny; Royal Economic Soc., London; Agricultural Finance Corpn., Bombay; All India Mfrs.' Organisation (Central Cttee.). Address: L.I.C. of India, Central Office, "Yogakshema", Jeevan Bima Marg, Bombay 20.

PAI, Dr. Tonse Madhava Anantha, M.B.B.S., Padma Shri (1965), Educationist; Pres. & Registrar, The Academy of General Education, Manipal; Ex-Chairman, Syndicate Bank Ltd., Manipal; b. April 30, 1898; Educ.: Christian High School, Udipi; St. Aloysius' Coll., Mangalore; Madras Medical Coll. Set up practice at Udipi; a founder, the Syndicate Bank Ltd., 1925; was its Mg.

Dir. for 36 years; in 1942 founded The Academy of Gen. Educ. at Manipal as a community enterprise; has also founded a number of commercial and industrial concerns; is associated with many civic and business orgs. Publications: Tax-Free State or Taxless Society; Lake City University. Address: Central Avenue, Manipal, South Kanara, Mysore State.

PAL, Dr. B. P., M.Sc. Hons. (Rgn.), Ph.D. (Cantab.), D.Sc. (honoris causa) F.L.S., F.R.H.S., F.B.S., F.G.S. F.N.I., Padma Shri (1958), Rafi Ahmed Kidwai Prize for Agricultural Botany (1960), Birbal Sahni Medal for Botany (1962), Srinivasa Ramanujan Medal, 1964, Padma Bhushan (1968), Dir. Genl., Indian Council of Agril. Research, New Delhi & Addl. Seey. to the Govt. of India, Min. of Food & Agri.; Pres., Indian Scc. Congress. b. May 26, 1906. Leader, Indian Delegation to the Intul. Botanical Congress, Paris, 1954; member of various Scientific Orgs. and Cttees.; member, Board of Trustees, Intul. Rice Research Instr., Los Banos, Philippines, 1967; has been Pres., Botany & Agrl. Scs. Sec., Indian Sc. Congress, Indian Botanical Soc., Indian Soc. of Genetics & Plant Breeding, Horticultural Society of India; member: All-Union Lenin Academy of Agrl. Sciences; Pres., Rose Soc. of India and Delhi, Agrl. Soc.; Vice-Chairman, All India Fine Arts & Crafts Soc. Address: Indian Council of Agricultural Research, New Delhi 1.

PALKHIVALA, Nani Ardeshir, Advocate (O.S.), Chairman, A.C.C. Ltd., since Jan. 1, 1969. b. Jan. 16, 1920; Educ.: St. Xavier's Coll. & Govt. Law Coll., Bombay. Senior Advocate, Supreme Court of India; Member, first & second Law Commissions; Dir.: Tata Industries Pvt. Ltd., Tata Sons Pvt. Ltd.; Industrial Credit & Investment Corpn. of India Ltd., Industrial Devpt. Bank of India, Tata Hydro-Electric Power Supply Co. Ltd., National Organic Chemical Industries Ltd., Tata Chemicals Ltd., The Statesman Ltd., etc.; Chairman: Incometax Appellate Tribunal Bar Assoc., A. D. Shroff Memorial Trust; Pres., Forum of Free Enterprise. Publications: Jt. Author of Law and Practice of Incometax and of Taxation in India (Harvard University, USA); Highest Taxed Nation (1965). Address: Residence: "Commonwealth", 181, Backbay Reclamation, Bombay 1.

PALSIKAR, Shankar Balvant, G.D. Art (Painting), Painter; Dean & Prof., Sir J. J. School of Art, Bombay. b. May 17, 1916; Educ.: Sir J. J. School of Art, Bombay; took G.D. Art (Painting), 1947. Awarded gold medal of Bombay Art Soc. and Academy of Fine Art, Calcutta, 1950; exhibited paintings in leading exhibitions in India and abroad, Russia, America, Japan, England; through Lalit Kala Akademi represented India at the Intnl. Assoc. of Plastic Arts, London, June 1965. Address: Dean's Bungalow, Sir J. J. School of Art Compound, D.N. Road, Bombay 1.

PANDE, Bharab Datt, B.Sc. (Alld.), B.A. (Cantab.), I.C.S., Secretary to the Govt. of India, Heavy Industry, Min. of Industrial Development, Govt. of India, since Feb. 9, 1970. b. March 17, 1917; Educ.: Univ. of Allahabad (U.P.); Christ's Coll., Cambridge. Entered I.C.S., 1938; worked in different capacities in Bihar State like Food Controller, Secy., Supply and Prices, Secy., Finance Deptt.; Commissioner, Tirhut and Bhagalpur Divisions, Land Reforms Commissioner, Development Commissioner, 1945-60; Chief Secy. (1957); Joint Secy. to the Govt. of India, Ministries of Community Development & Cooperation and Economic & Defence Coordination (1960-63); Addl. Secy., Min. of Finance, and Gold

Control Administrator, • 1963-65; Chairman, B.I.C., 1965-67; Commissioner General-cum-Chief Secy., Bihar, Jan.-Aug. 1967; Secy., Planning Commsn., 1967-70. Address: Ministry of Industrial Development, New Delhi.

PANDE, Ram Sinhasan, I.A.S. (Retd.), Administrator and Industrialist. b. Feb. 14, 1910, at Ballia (U.P.); Educ.: M.Sc. (Patna). Served Bihar Govt. in important positions; Director: Heavy Engg. Corpn., Ranchi; Tata Industries Pvt. Ltd., Tata Robins-Fraser Ltd., Indian Tube Co. Ltd., Belapur Refractories Ltd.; West Bokaro Ltd.; ex-Pres.: Bihar Chamber of Commerce; Fellow, Instt. of Directors, London; Vice-Pres.: Indian Society of Labour Economics; Member: Industrial Cttee., Iron and Steel, Union Labour Min.; Bihar Ind. Dev. Council; Chmn.: Stg. Cttee. for Adityapur Industrial Area (Bihar); Study Group for Heavy Engg., National Commsn. on Labour; Indian Delegate to I.L.O. Conference, Geneva (1952); I.L.O. Tech. Committee Meeting (1959) as rep. of Employers' Federation of India; I.L.O. Iron and Steel Cttee. Session (1963), Cardiff (U.K.). Address: Residence: 34, St. Mile Road, Jamshedpur 1; Office: 24, Bruce Street, Fort, Bombay 1.

PANDEYA, Gayanacharya Avinash Chandra, M.A. (I), B.Com., J.D., Public Relations Consultant, Musicologist and Danceologist. b. Aug. 26, 1923; Educ.: in London, and Univs. of Lucknow, Punjab (old) and Agra. Culture study tour of East Indies, etc., 1938-39; Editor, Music & Dancing, 1941-42; Staff and Spl. Correspondent of The Hindustan Times, The Amrita Bazar Patrika, U.P.I., etc., 1943-46; Central Information Service, since 1948; Extension lecturer, London Univ. Mural Studies, 1960-61; Rapporteur, Second World Congress of Pub. Relations, Venice, 1961; Official delegate, Third Pub. Relations, Venice, 1961; Official delegate, Adviser (Editorial) Press and Public Relations (Monthly), since 1969. Publications: The Art of Kathakali, Rag Darshan (I) co-edited; Bharatiya Nrityakala; Dhru(va)pad; The Art of Bharat Nritya (Natwari), etc. Address: 17, Fire Brigade Lane, New Delhi I.

PANDIT, Smt. Vijaya Lakshmi, Ex-Governor, Maharashtra State. b. August 18, 1900; Educ.: Privately by tutors and governesses. Elected to U.P. Assembly, 1936 & 1946; Min. of Local Self-Govt. and Public Health, U.P. (first woman in India to hold ministerial rank); Pres., All-India Women's Cfce., 1940-42; Vice-Pres., Women's Intul. League for Peace and Freedom; toured extensively in U.S.A.; was present in San Francisco during the first meeting of the U.N. where she challenged the right of the British-appointed Indian delegation to speak for India and voiced India's claim to independence outside the Cfce. hall; Leader, Indian delegation to the U.N.O., 1946, 1947, 1948, 1949, 1950 & 1963; imprisoned thrice in connection with C.D. Movements, 1932, 1941 and 1942; Indian Amb. to: U.S.S.R., 1947-49; U.S.A., 1949-52; Pres., U.N. Gen. Assembly, 1953-54; Governor of Maharashtra, 1962-64; M.P., Lok Sabha from Phulpur, 1964 & 1967; resigned, 1968; has received 16 honorary doctorates from Indian and foreign univs. and a number of awards for work on the intul. bodies. Address: 8e, Mafatlal Park, Bhulabhai Desai Road, Bombay 26.

PANICKER, K. Chathunni, Kathakali Guru, Darpana Akademi, Ahmedabad. b. 1922 of the illustrious Kavingal family of Kathakali actors in Kerala. Even as a child, showed great interest in the dance, always following Kathakali troupes from village to village; began to take part in Kathakali performances from the age of 14; joined mrinalini Sarabhai's troupe, 1945; his popular roles are

Ravara, Hanuman, Bhima and Narsimhan; has popularised Kathakali in Western and Eastern countries; works in close collaboration with Mrinalini Sarabhai in her choreographic experiments. Address: Darpana Akademi, Chidambaram, Ahmedabad 13.

PANIGRAHI, Kalindi Charan, B.A. (Patna), Oriya Novelist; Programme Producer, A.I.R., Cuttack. b. 1901; Educ.: Ravenshaw Coll. Member: Sahitya Akademi; Cttee. of Writers; P.E.N. All India Centre; Senate, Utkal Univ. etc. Organiser, the Sabuj (Green) Group of writers; is a poet, play-wright, novelist, essayist and short story writer, among the progressive group of modern times; writer of children's literature. Publications: Manenahin, Kshyanika Satya, Sesha Rashmi, Amara Chita, Sahitya Samachar, Piyadassi; Sagarika, Rashiphal, Bhaktakavi, Madhusudan. (Novel Matira Manisha has been published by Sahitya Akademi in all Indian languages.) Address: 'Swapnapuri,' Pithapur, Cuttack-1, Orissa.

PANIKKAR, Dr. N. Kesava, M.A., M.Sc., D.Sc., F.A.Sc., F.N.A.Sc., F.N.I., F.R.S.A., F.Z.S.I., Chairman, Indian Nat'l. Cttee. on Oceanic Research, 1970; Scientist. b. May 17, 1913; Educ.: Kottayam and Madras Christian Coll.; Univs. of Madras, London and Cambridge. Dir., Univ. Zoological Lab., Madras, 1944-46; Dir.: Central Marine Fisheries Research Instt., Mandapam, 1950-57; Fisheries Devpt. Adv. to the Union Govt., 1957-62; Indian Ocean Expedition, CSIR, 1962-65; Pres.: Zoological Sect., Indian Sc. Congress, 1952; Chairman: Inter-Govtal. Oceanographic Commission, 1964-66; Union Cttee. on Fisheries Educ., 1958-60; Secy., National Instt. of Scs. of India; Pres., Zoological Society of India since 1968; and Vice-Pres., Indian Academy of Sciences and Indian Geophysical Union; Indian rep. at many intnl. cfees. on Fisheries and Oceanography since 1949. Publications: Several research papers in Zoology, Comparative Physiology, Fisheries and Oceanography. Address: National Instt. of Oceanography, Miramar, Panaji, Goa.

PANJWANI, Ram Partabrai, B.A., Sahitya Akademi Award for his reminiscences Anokha Azmooda, (1964), Sindhi novelist, dramatist, poet and singer. Chairman, Board of Studies in Sindhi, Prof. and Head of the Deptt. of Sindhi, Jai Hind Coll., Bombay, since 1948. b. Nov. 20, 1911; Educ.: D. J. Sind Coll., Karachi; Expenent of folklore of Sind; has written dialogues for Sindhi pictures 'Abana' and 'Raj Dyach'; member: Academic Council, Bombay Univ.; National Book Trust, Childrens Literature Cttee.; Youth Services Writers' Cttee.; Sindhi Adv. Board, Sahitya Academi, since 1957. Publications: Qaidi, Sharmila, Latifa, Sindh Ja Sat Natak; Padma; Adabi Ghuncho, Shirin Shair, Chund Kalam, Sindh Ji Sookhri and Sika Ji Soghat, etc. Address: 8, Qureshi Mahal, Bombay 16.

PANT, Apasaheb Balasaheb, B.A. (Bombay), M.A. (Oxon.), Bar-at-Law, Padma Shri, 1954, High Commissioner to U.K., since Sept. 1969. b. Sept. 11, 1912; Educ.: Deccan Coll., Poona, Oxford (B. N. C.); Lincoln's Inn. Elected Prime Min. of Aundh State, 1944-48; member A.I.C.C., 1948; Indian Commr. in British East Africa, 1948-54; Consul-Gen. to Belgian Congo & Ruanda-Urundi & Commr. to Central Africa and Nyasaland, 1950; O.S.D., Ext. Affairs Min., 1954-55; Political Officer in Sikkim and Bhutan, 1955-61; Amb. to: Indonesia, 1961-64; Norway, 1964-66; U.A.R., 1966-69. Publications: Tensions & Tolerance (1965); Aggression and Non-Violence— Gandhian experiments to fight them (1968); Vivekananda in Indonesia; Yoga (1968); Suryanamaskar (1969). Address: Amrai Camp, Deccan Gymkhana, Poona 4; C/o External Affairs Ministry, New Delhi.

PANT, Krishna Chandra, M.Sc., Minister of State, Ministry of Home Affairs, Govt. of India, since June 27, 1970. b. Aug. 10, 1931 in Bhowali, Nainital Dist.; Educ.: Lucknow Univ.; Chancellors' Gold Medal being the best all-round student (1954); Germany, member, Students & Teachers' delegation to the Soviet Union, 1954; M.P., Lok Sabha from Nainital, since 1962; Secy., Congress Parl. Party, 1965-66 and 1966-67; member: Exec. Cttee., U.P.C.C.; A.I.C.C.; Indian delegation to the U.N., 1965; elected Vice-Chairman, 1966-67; Min. of State: Min. of Finance, Govt. of India, 1967-69; Steel and Heavy Engg., 1969-70; travelled widely abroad in the U.S.S.R., West Germany, U.K., Japan and U.S.A. Address: Ministry of Home Affairs, Government of India, New Delhi.

PANT, Dr. Sumitranandan, Padma Bhushan (1961), Sahitya Vachaspati (1965) by Hindi Sahitya Sammelan; LL.D. (1965), Honoris Causa by Vikram Univ., Bharatiya Jnanpith Award (1968), Hindi Poet; Sahitya Salahkar, All India Radio. b. 1900, Kosani, Almora Dist.; Educ.: Almora, Banaras, Allahabad Univ. Has studied Sanskrit, English, Bengali and Hindi literature; is a principal architect of the Chhayavad (romantic) school of poetry in Hindi; Chief Producer. Hindi (Spoken Word) programmes, A.I.R., 1955. Publications: Vina; Granthi; Jyotsna; Yugvani; Pallara; Gunjan; Granya; Swarnadhooli; Swarna Kirana; Yug Path; Uttara; Atima; Shilpi; Sauwarna; Vani; Kala Aur Burha Chand, Akademi Award (1961); Lokayatan (Epic), 1964; Kiran Vina; Pau Phatne Se Pahile. Address: 18/B-7, K. G. Marg, Allahabad.

PAREKH, Hasmukh Thakordas, B.A., B.Sc. (Econ.) (London), A.C.A., Vice-Chairman and Mg. Dir., The Industrial Credit and Investment Corpn. of India Ltd., since Jan. 1, 1968. b. March 10, 1911; Educ. : Wilson Coll., Bombay; London School of Economics, London. Dir.: Premier Automobile Ltd.; State Bank of India; Trustee: Unit Trust of India; widely travelled. Publications: The Bombay Money Market (1953 by Oxford Univ. Press); The Future of Joint Stock Enterprise in India (1958 by Jaico Publishing House); India and Regional Development (1969 by Vora & Co.). Address: Kastur Nivas No. 1, French Road, Chowpatty, Bombay 7.

PAREKH, Nagindas Narandas, Bhashavisharad (G.V.), Gujarati Writer. b. Aug. 30, 1903; Educ.: Gujarat Vidyapith, Ahmedabad; Visvabharati, Santiniketan. Mg. Editor, Mahagujarat Publishing Co., 1941-42; Reader, Navajivan Prakashan Mandir, 1944-47; Prof.: Gujarat Vidyapith, 1926-41; B. J. Instt. of Learning and Research, Ahmedabad, 1947-54; H. K. Arts Coll., Ahmedabad, since 1954; Editor: Kishore 1934-36; Buddhiprakash, 1947-56; member: Gujarati Textbook Cttee., Bombay, 1948-50; Textbook Revision Cttee., Gujarat, 1968. Publications: Nearly 70 translations from English and Bengali and translated The New Testament; Kavya, parichay, Premanand, Navalram, Hindustani Vyakaran Pravesh, Abhinavano Rasvichar, Parichay ane Parikska, Swadhyay ane Samiksha, etc. Address: 21, Sardar Patel Nagar, Ahmedabad 6.

PARIKH, Rasiklal Chhotalal, B.A. (Bom.), Writer; Dir., B. J. Instt. of Learning & Research (Gujarat Vidya Sabha), Ahmedabad, 1942-68. b. Aug. 20, 1897; Educ.: Sadra; Ahmedabad; Fergusson Coll., Poona. Recognised Univ. teacher for M.A. and Ph.D. & member: Senate and Academic Council and Boards of Studies, Sanskrit and Ancient Indian Culture, Gujarat Univ., since 1950; was on the teaching staff of Gujarat Vidyapith from its inception; Editor, Puratattva; Dean, Faculty of

Arts incl. Educ., Gujarat Univ., 1950-55; Sahitya Academy Award for "Sharvilaka"—a Gujarati play, 1960; Pres.: Sanskrit Sect., All India Oriental Cfee., Srinagar, 1961; Gujarati Sahitya Parishad, 1963; has lectured at Bombay, M. S., Baroda & Gujarat Univs. Publications: Kavyanusasana of Hemachandra, Capitals of Gujarat, Tattvopaplava with Pt. Sukhlal, Kavyaprakasa Sanketa named Kavyadarsa of Somesvara Bhatta, Nrityaratnakosa with Priyahala Shah, Ananda Mimamsa, Parishadni Atmavyakti, History—Idea & Method, etc. Address: 11, Bharati Niwas Society, Ellis Bridge, Ahmedabad 6.

PARMAR, Dr. Y. S., M.A., LL.B., Ph.D., Chief Min., Himachal Pradesh, since July 1963. b. Aug. 4, 1906, at Chanhalag, Dist. Sirmur; Educ.: F. C. Coll., Lahore; Canning Coll., Lucknow; Lucknow Univ. Served Sirmur State, 1930-41; resigned due to political differences and exiled from the State, 1941; successfully organised Satyagraha in Suket State, culminating in the integration of Hill States into H.P.; nominated to A.I.C.C., 1948; Member: Chief Commr.'s Adv. Council, 1948; Constituent Assembly, Sept. 1949; Pres., H.P.C.C., 1948-50; Leader: Indian Parly. delegation to the Inter-Parly. Cfce. at Istanbul, 1951; Himachal Legislative Assembly and Chief Min., 1952-56; M.P., 1957; Pres., H.P.C.C., 1960-63. Publications: Social and Economic Background of Himalayan Polyandry; Himachal Pradesh—its proper shape and status; and Case for Statehood-Himachal Pradesh. Address: Simla 4.

PARSONS, John Michael, Knight Bachelor (1970), Chairman and Mg. Dir., Macneil & Barry Ltd. b. Oct. 29, 1915; Educ.: Rossall School and Univ. Coll., Oxford. Served with 18th Royal Garhwal Rifles, India and Far East, 1939-45; Brigade Major, 8th Indian Infantry Brigade, Malaya, 1941; mentioned in Despatches; Vice-Chairman, Indian Jute Mills Assoc., 1960 and 1961; Cttee. Member, Bengal Chamber of Commerce & Industry, 1963-66; Vice-Pres., 1967; Pres., 1968 & 69; Dy. Pres., Associated Chamber of Commerce & Industry of India, 1969; Vice-Pres., Employers' Federation of India, 1967-69. Address: 22, Camac Street, Calcutta 16.

PARTHASARATHI, G., B.A., (Hons.) (Madras), B.A. (Hons.) (Oxon.), Barrister-at-Law, Vice-Chancellor, Jawaharlal Nehru Univ., since April 28, 1969; b. July 7, 1912; Educ.: Presidency Coll., Madras; Wadham Coll., Oxford; Lincoln's Inn, London. Asstt. Editor, The Hindu, 1936-49; Chief Rep.: P.T.I., Reuter, London, 1949-51; Chief Editor, P.T.I., 1951-53; Chairman: Intn'l Commn. for Cambodia, 1952-55, Intn'l Supervisory Commn. for Viet Nam, 1955-56; Intn'l Commn. for Supervision & Control, Viet Nam, 1961-62; Amb. to: Indonesia, 1957-58; China, 1958-61; delegate, U.N., Oct.-Nov.1961; Indian High Commr. in Pakistan,1962-65; Pres., U.N. Security Council for Sept. 1967; India's Permanent Rep. in the U.N., 1965-68. Address: 31, Auragezeb Road, New Delhi 11.

PASHA, Syed Jaffar Sadiq, B.A., B.L., Minister for Public Works, Tamil Nadu, since Aug. 1969 and also for Transport, since Feb. 1970. b. 1930; Educ.: Udamalpet Board High School; Vaniambadi Islamia Coll.; Madras Govt. Muslim Coll.; Madras Law Coll. Member: General Council of the D.M.K. for several years; D.M.K. Parliamentary Bd.; D.M.K. Executive; took keen interest in labour union activities; member, Udamalpet Municipal Council; was for some time Municipal Chairman; Director and Vice-Pres., Udamalpet Co-operative Urban Bank; is an Advocate of the Madras High Court; Min. for Health, Tamil Nadu, 1967-69. Address: Madras 9.

PRTEL, Babubhai Jashbhai, B.A., LL.B. (Bombay), Minister for P.W.D., Electricity and Civil Supplies, Gujarat, since March 1967. b. Feb. 9, 1911; Educ.: Nadiad, Baroda, Poona and Bombay. M.L.A., Bombay, 1937-39 and 1946-57; Parliamentary Secy. to the Chief Minister, Bombay, 1949-52; Dy. Minister for P.W.D. and Transport, 1952-56; Min. for Planning, Devpt., Electricity and Housing, 1956-57; Chairman: Gujarat State Khadi and Village Industries Board, 1960-67; Gujarat Mineral Development Corpn., 1963-67; member: All India Khadi & Village Industries Board, 1960-67; A.I.C.C.: Vice-Chancellor, Sardar Vallabhbhai Vidyapeeth, 1958-61; Trustee, Shri Brihad Bharatiya Samaj; Vice-Chairman, Sardar Vallabhbhai Samaj Seva Trust. Publications: Gujarati booklets on The Tenancy Reforms of the Bombay State; The Sales Tax Law of Bombay State; Food Controls in Bombay State; Roads of Gujarat; English booklets on:—Three years of State Transport is Bombay State; State Transport X-rayed. Address: 'Shreyas', Mission Road, Nadiad; No. 4, Ministers' Qtrs., J. Road, Gandhinagar, Ahmedabad.

PATEL, Bhagvatprasad R., M.A., A.I.A., I.C.S., Ambassador to Belgium and concurrently to the Grand Duchy of Luxembourg, since April 1970. Educ.: Proprietary High School, Ahmedabad, Gujarat Coll. and Baroda Coll. Joined I.C.S., 1936; took service in Sind; served as Asstt. Collr., Asstt. Revenue Officer, Barrage, Collr., Dy. Secy. and Secy., Food & Civil Supplies Deptt.; was in Ministry of Food, Govt. of India, 1947-48; Chief Secy.: PEPSU, 1948-50; Saurashtra, 1950-54; Dir.-Gen. of Shipping, 1954-55; Vice-Chairman & Gen. Mgr., Air India, 1955-66; Spl. Secy., Union Min. of Commerce, June-July 1966; Chairman, Export Credit & Guarantee Corporation, 1964-67; Secy.: Deptt. of Defence Supplies, 1966-67; Secy.: Deptt. of Works, Housing & Supply, Govt. of India, 1967-69; Deptt. of Agriculture, Min. of Food & Agriculture, Govt. of India, 1969-70. Address: C/o External Affairs Ministry, New Delhi.

PATEL, Dr. Chaturbhai Shankerbhai, B.A. (Hons.) & M.Sc. (Bombay), Ph.D. (Chemistry) (Leeds), Vice-Chancellor, M.S. Univ. of Baroda, since April 30, 1964. b. Nov. 7, 1897; Educ: Sojitra High School, Sojitra; Baroda Coll.; Leeds Univ. Prof. of Chemical Technology and Dye House Supdt., Kalabhavan Tech. Instt., 1921-41; Dir., Technological Instt. & Industrial Chemist, Baroda, 1941-49; member, Bombay Univ. Senate, 1935-47; Prof. of Chemistry, Faculty of Science, M.S. Univ. of Baroda, 1950-51 and Dean, Faculty of Sc., 1951-54; Pro-Vice-Chancellor, 1953-64; member: Industrial Research Cttee., Govt. of Bombay; Food Industries Panel No. 1 (Milk and milk products), Food Directorate, Govt. of India; Exec. Cttee., Indian Sc., Congress Assoc.; widely travelled. Address: 3, Pratap Gunj, Baroda 2.

PATEL, Harihar, B.A., B.L., Minister, Industries, Commerce, Public Relations, and Text Book Press, Orissa Govt.; Chairman, Orissa Ind. Devptt. Corpn. b. Sept. 20, 1924; Educ.: B. S. High School, Sundargarh (Orissa); Ravenshaw Coll., Cuttack. During student career joined 'Quit India' and Prajamandal movements; Founder Member, Ganatantra Parishad which merged with Swatantra Party later; General Secy., Ganatantra Parishad, 1955-57; elected to Rajya Sabha, 1958; elected to Orissa Leg. Assembly, 1961; Gen. Secy., Swatantra Party, Orissa Unit, 1964-66; Editor-in-Charge, Daily Ganatantra, 1961-65. Publications: Poetry: Gunjarana, in Oriya, Sethjinkara Gandhi Jayanti (Short Stories) and many essays on politics and on various problems. Address: Minister for Industries and Commerce, Orissas Bhubaneswar-1.

PATEL, Dr. Indraprasad Gordhanbhai, B.A. (Bom.), B.A. (Cantab.), Ph.D. (Cantab.), Seey., Min. of Finance, Deptt. of Economic Affairs, Govt. of India, since Feb. 1969. b. Nov. 11, 1924; Educ.: Baroda, Cambridge (Eng.) & Harvard. Prof. of Economics, M.S. Univ. of Baroda, 1949-50; with the I.M.F., 1950-54; Dy. Econ. Adviser, Min. of Finance, Govt. of India, 1954-58; Alternate Exec. Dir. of India, I.M.F., 1958-61; Visiting Prof. of Economics, Univ. of Delhi, 1964; Chief Econ. Adviser, Min. of Finance, Govt. of India, 1961-63 and 1964-68; delivered Shastri Memorial Lectures, Jan. 1968; appointed alternate Governor, World Bank, and Asia Development Bank, Sept. 1970. Address: 11, Tin Murti Lane, New Delhi 11.

PATEL, Surgeon Captain Jal Ratanji, M.D., F.C.P.S., F.C.C.P., F.I.C.A., F.A.C.C. (U.S.A.), Padma Bhushan (1962), Hon. Physician to the President of India; Dir., Post-graduate & Research in Pharmacology, Grant Medical Coll., Bombay; Ex-Prof. of Pharmacology now Emeritus Prof. of Pharmacology, Grant Medical Coll., Bombay; Ex-Chairman, Central Drug Research Institute, Lucknow; Fellow: American Coll. of Chest Physicians; International Coll. of Angiology, U.S.A.; American Coll. of Cardiology; Examiner in M.D., and Ph.D., Univs. of Bombay, Lucknow and Madras; Hon. Cardiologist for Defence Service Personnel stationed in Bombay (I.N.H. Aswini); Hon. Consulting Physician, Bombay Telephones; Ex-Hon. Consulting Physician and Cardiologist, Central & Western Railway hospitals, Bombay; Nominated Member, Maharashtra Medical Council, since Aug. 1964; awarded Hon. Rank of Surgeon Captain in the Indian Navy by the President of India, 1961; Fellow, Univ. of Bombay; Member, Indian Institute of Biochemistry and Experimental Science (Calcutta). Research Work: Some observation on the blood pressure of dogs with special reference to Supra Renal Cortex, Experimental work on Tranquillizer, etc. Address: Bombay House, 24, Bruce Street, Fort, Bombay 1.

PATEL, Shantilal Vithalbhai, B.A., LL.B. (Bombay), Ambassador of India to Ireland. b. Aug. 1, 1916; Educ.: Bombay Univ. Indian Trade Commissioner in East and Central Africa, Mombasa, 1949-53; Indian Trade Commissioner in Sydney, Australia, 1953-56; First Secy., Indian Embassy, Bonn, 1957; Indian Consul General at Hamburg, 1957-59; Commercial Counsellor, Indian Embassy, Cairo, 1959-63; Ambassador of India to Hungary, 1963-66; High Commissioner of India to Ghana and Sierra Leone and Ambassador of India to Liberia, 1966-69; Ambassador to Brazil, concurrently accredited to Bolivia & Venezuela, 1969-70. Address: C/o External Affairs Ministry, New Delhi.

PATELL, Jehangir J. K., B.A., F.C.A., F.C.C.S., R.A., F.C.R.A., F.I.C.S., J.P. and Hor. Presidency Magistrate, Secy. Genl., W.I.A.A., and Secy., Asian Zone of the A.I.T. and Regl. Office for Southern Asia of the O.T.A. b. 2nd August 1905; Educ.: St. Xavier's School and Coll.; Davar's Coll. of Commerce and School of Accountancy, London. Vice-Patron and Life Member: Bombay Presidency Olympic Assoc. and the Bombay Symphony Orchestral Soc.; W.I.A.A.; W.I.F.A.; Member: Asiatic Soc. of Bombay; Dt. Grd. Puruivant, Dt. Grd. Lodge, E.C. and Dt. Grd. Almoner, Dt. Grd. Lodge, S.C.; Hon. Grand 'J' of the Grand Chapter, U.S.F.I.C.; Hon. Treasurer, B'bay Dt. Soc. of Incorporated Secretaries: member, Assoc. of Secretaries, Bombay. Address: Office: 76, Veer Nariman Road, Churchgate Reclamation, Bombay 1; Res.: Lalchand Mansion, Dubash Estate Road, Colaba, Bombay 5.

PATHAK, Gopal Swarup, Vice-President of India, since Aug. 31, 1969. b. Feb. 28, 1896; Educ.: Govt. Coll., Lahore; Allahabad Univ. Started practice of Law at Bareilly, 1919; shifted to Allahabad High Court, 1928; Judge, Allahabad High Court, 1945-46; resumed practice, 1946; appointed Honorary Legal Adviser particularly on international law, 1951; seven times member, Indian delegation to the U.N. to give expert legal advice on the Kashmir issue, 1946-59; visited several countries as special representative of Prime Minister Nehru with honorary rank of Ambassador to apprise India's stand on Kashmir, 1957; elected to the Rajya Sabha, 1960; served on a number of parliamentary Committees; Law Minister, Govt. of India, 1966-67; Governor of Mysore, May 1967-Aug. 1969; Chancellor, Delhi Univ., since Jan. 1970. Address: 6, Maulana Azad Road, New Delhi 11.

PATHAK, Murlidhar Sadashiv, B.Sc., B.E. (Mech.), B.E. (Electrical), Gen. Manager, India Security Press and ex-officio Controller of Stamps, since Aug. 6, 1960. b. Aug. 21, 1914; Educ.: Govt. High School, Nasik City; Fergusson Coll., & Engg. Coll., Poona. Joined the Corps of Indian Engrs. at Madras Sappers & Miners, Bangalore, Nov. 1, 1941; commn.ed as an Emergency Commn.ed Officer, May 2, 1942; services in Iraq, Iran, Palestine and India; rank on release: War Substantive Captain; released under class 'B' scheme to join India Security Press as Asstt. Master; Asstt. Master, June 5, 1946-Mar. 17, 1951; Dy. Master, March 18, 1951-Aug. 5, 1960; undertook observation tour of U.K., Switzerland and Italy in 1963; delegate, Fifth Intn'l. Cfce. on Currency Counterjeting, Mexico, Oct. 1969. Address: Caxton House, Nasik Road (C. Rly.).

PATIALA, Lt.-Genl. H.H. the Maharaja Yadavindra Singh, G.B.E. (1942), G.C.I.E. (1946), Hony. LL.D. (Punjab Univ.) (1949) & Banaras Hindu Univ. (1939), Cricketer, Ex-Ambassador to Italy. b. Jan. 7, 1913; Educ.: Aitchison Coll., Lahore; Police Trg. School, Phillaur. Served in the 2nd World War, 1939-45; member, Standing Cttee., Chamber of Princes, 1938-44; its Pro-Chancellor, 1944-47; Chancellor, 1947-48; Rajpramukh, PEPSU, 1948-56; has captained India in cricket; Pres., Indian Olympic Assoc., 1937-60; founded the Asian Games Federation, 1951; its Hony. Life Pres.; Chairman, All India Council of Sports, 1960-65; Leader, Indian delegation to F.A.O. Confee., Rome, 1959, '61-62, '63, '67 & '69; member, National Defence Council, 1962; Amb. to Italy, 1965-66; M.L.A., Punjab, 1967-68; Pres.: Guru Nanak Foundation, since 1965; Guru Govind Singh Foundation, since 1964. Address: Motibagh, Patiala; Rajgarh, Chail, Simla Hills.

PATIL, Rajaram Anant, LL.B., Minister for Industries, Electricity & Printing Presses, Maharashtra, since March 1967. b. Aug. 1, 1920; Educ.: Kasegaon, Poona, Baroda and Kolhapur. He has been a prominent political worker in Western Maharashtra; Pres.: S. Satara Dt. Local Board, 1952-62; M.P.C. and later its Gen. Secy.; was Chaiman, Maharashtra Co-op. Housing Finance Society, Bombay; member: Poona Univ.; Shri Chhatrapati Shivaji Univ. Cttee., 1961; deputed by A.I.C.C. to U.K. to study working of various political parties in U.K., 1960-61; M.L.A., Maharashtra from Walva Constituency, 1962 & 67; Dy. Minister for Revenue & Forests, 1962; Min. for Revenue '65-Feb. June '67. Address: 'Udayan', Ridge Road, Malabar Hill, Bombay 6.

PATIL, S. K., M.P. (Lok Sabha), Ex-Minister for Railways, Govt. of India; Treasurer, A.I.C.C. b. Aug. 14, 1900 in Ratnagiri Dist.; Educ.: St. Xavier's Coll., Bombay; London Univ. Joined N.C. Movement, 1920;

conducted National School 1921-24; was imprisoned 8 times in the Freedom Movement; was member, Bombay Municipal Corpn. for 20 years; was Gen. Secy., B.P.C.C. for 17 years; M.L.A., Bombay, 1937-46; Pres., B.P.C.C. for 10 years; was Chairman, Govt. of India Film Enquiry Cttee. and Cantt. Cttee.; Mayor of Bombay, 1949-52; member: Constituent Assembly, 1947-50; Provl. Parl. 1950-52; was Fellow, Royal Geographical Society for 4 years; was Pres., Indian Motion Picture Producers' Assoc. for a year; member Lok Sabha 1952-67; Union Min. for Irrigation & Power 1957, Transport & Communications 1958-59; Food & Agriculture 1959-63; resigned as Min. under 'Kamaraj Plan' 1963; Min. for Railways 1964-67; member A.I.C.C. since 1934; Congress Working Cttee., 1957 & since 1960; Central Parly. Board, since 1963; travelled extensively in Europe, U.S.A., Latin American countries, U.S.S.R., Middle Eastern, African and Eastern countries; Pres./Chairman of numerous social, cultural and educational institutions like all-India Humanitarian League, Balkan-ji-Bari, Brihad Bharatiya Samaj, India Peace Corps, Indo-German Cultural Society, International Forum, Indian Fedn. of U.N. Assocn., Marathi Granth Sanghrahalaya, Vallabhbhai Patel Memorial Trust, and many others. Address: Shanti Kuteer, Marine Drive, Bombay 20 BR.; 12, Akbar Road, New Delhi 11.

PATIL, Sanganbasappa Mallangowda, B.E. (Mech.) & (Elec.) (Bombay), (F. I. Prod. E.) (Lond.), M.I.E. (India), Hony. D.Sc. (Karnatak Univ.), Sir Walter Puckey Prize by the Institution of Production Engineers, London, 1965; Padma Shri, 1966, Chairman, since 1967 and Mg. Director, since 1964, Hindustan Machine Tools Ltd., Bangalore. b. Jan. 1, 1919; Educ.: Bombay. Asstt. Gen. Technical Manager, then Dy. General Technical Manager, & then General Manager, H.M.T., 1953-62; Director of the Board, 1962; visited Europe, U.S.A., Mid. East & Far East Asian Countries, Australia & New Zealand on several assignments; Consultant to the ECAFE on the development of machine tool industry in that region; Chief Indian Delegate, Top Management Symposium of the Asian Productivity Organisation in Hong Kong & Japan, Oct.-Nov. 1969; U.N. Expert to the Expert Gr. Meeting on Metal-working Industries as Potential Export Industries, Vienna, Dec. 1969. Address: Hindustan Machine Tools Ltd., Bangalore 31.

PATIL, Veerendra, B.A., LL.B., Chief Minister, Mysore, since May 29, 1968. b. Feb. 28, 1924, in Chincholi, Gulbarga Dist.; Educ.: Govt. High School, Gulbarga; Osmania Univ., Hyderabad. Practised Law 1947 & 1950-55; became Gen. Seey., Hyderabad P.C.C.; returned to Hyderabad State Assembly from Aland Constituency, 1952; elected on Congress ticket from Chincholi Constituency in 1957 and 1962; Dy. Minister for Home and Industries, Mysore, till May 16, 1958; Organising Secy., Mysore P.C.C. till 1960; Pres., D.C.C., 1960-61; Minister for Excise and Rural Industries, 1961-62; Public Works and Transport, 1962; Public Works, 1962-68; member: Exec. Catee., M.P.C.C.; A.I.C.C., since 1957; Chairman, State Advisory Board on ports; is member, National Harbour Board; member, Indian delegation to U.S.S.R., June 1965; M.L.A. Mysore, 1967; Min., P. W. & Electricity, Mysore, 1967-68. Address: Vidhansoudha, Bangalore 1.

PATNAIK, Bijoyananda, Ex-Chief Min., Orissa. b. March 5, 1916; Educ.: Ravenshaw Coll., Cuttack. Joined the Indian National Airways and became its ace pilot; took active part in the "Quit India" movement; courted jail for his activities in the freedom struggle; flew the Indonesian Premier Mr. Sutan Sjharir to New Delhi during the Indonesian freedom fight against the Dutch;

landed the first Indian plane in Kashmir when Pakistan attacked her; took to industries after returning to Orissa; among his concerns is the Kalinga Airways; elected to Orissa Assembly from Choudwar during the mid-term election, 1961; Chief Min., Orissa, 1961-63; resigned under the "Kamaraj Plan," Aug. 1963. Address: Bhubaneswar.

PATNAIK, Kali Charan, Kavichandra (1942), Natyacharya (1944), Oriya Poet and dramatist; writer of Children's Literature. b. Dec. 23, 1898; Educ.: Ravenshaw Coll., Cuttack. Founder-Dir., Sakhigopal Natya Sangh 1926-39; Orissa Theatres 1939-50; Founder: Suralekha Record Productions; Odissi Music & Dance Instt.; Founder-Pres., Utkal Natya Sangh; Chairman, Board of Studies in Music, Utkal Univ. 1949-57; member, Orissa Sangeet Natak Academy, since 1954; its Vice-Pres., and Fellow, Central Sangeet Natak Akademi since 1968. Publications: 72 Oriya and 2 Hindi Dramas; Short Stories; Songs; Music; Dance; Dance-Dramas; One-Act Plays; Lyric composer of three films, 1949-58. Address: "Kavi Nivas", Jagannath Ballav, Cuttack-1 (Orissa).

PATTAMMAL, Smt. D. K., Sangeet Natak Akademi Award (1962); Mathura Kala Pavina by Sri Sathguru Sangeetha Samajam of Madurai (Feb. 1970); Musician (Karnatac Vocal). b. March 28, 1919; Educ.: Kancheepuram. Was awarded the title of "Gana Saraswathi" by the late Tiger Varadachariar in 1943. Address: 7, Srinagar, Madras 15.

PAVATE, Dr. Dadasaheb Chintamani, M.A. (Cantab.), Padma Bhushan (1967), Governor of Punjab since Oct. 16, 1967. b. Aug. 2, 1899; Educ.: Karnatak Coll., Dharwar; Sidney Sussex Coll., Cambridge. Prof., Mathematics, Banaras Hindu Univ., 1928-30; Dir. of Public Instruction, Bombay State, 1947-54; member, Official Language Commn., 1955-56; Leader, Indian Delegation to the 19th Intn'l Educ. Cfce., Geneva, July 1956; visited several Univs. abroad as a member of the Exec. Council of the Assocn. of Commonwealth Univs.; member: Univ. Grants Commn.; Vice-Chancellor, Karnatak Univ., 1954-67. Publications: Modern College Calculus; Modern College Algebra; Memoirs of an Educational Administrator and some other books in Mathematics. Address: Raj Bhavan, Chandigarh.

PEGOV, H. E. Mr. Nikolai Mikhailovich, Ambassador Extraordinary and Plenipotentiary for U.S.S.R. in India, since 1967. b. 1905 in Moscow; Educ.: Took Diploma in Engineering. Held leading executive posts; elected First Secy., Primorsky Regional Cttee., Communist Party of the Soviet Union (CPSU), 1938; became member, Central Cttee., CPSU., 1938 and its Secy., 1952; elected a Deputy of the Supreme Soviet of the U.S.S.R., several times; Secy., Presidium of the Supreme Soviet of the U.S.S.R., 1953-56; Soviet Amb. to Iran, 1956-63 and to Algeria, 1964-67; received 11 Govt. awards for services in the economic, social and diplomatic fields. Address: Soviet Embassy, New Delhi.

PENDSE, Shripad Narayan, B.Sc. (Bombay), Marathi Writer; Rockefeller Fellow, 1955-56. b. Jan. 5, 1913; Educ.: Bombay. Wrote his first novel Elgar, 1949; toured the Continent, U.K., U.S.A., and South-East Asia, under Rockefeller fellowship, 1955. Publications: Khadakavaril Hiraval and Jumman, two collections of short stories; Novels: Elgar (awarded a prize as the best book of the year); Haddapar†, Garambeecha Bapoo, Hatya† (1954), Yashoda (1957), Kalandar† (1959); Mahapux (a play, 1961); Rathachakra—a novel (1962); won Sahitya

Akademi Award for the best book in Marathi, (1963); Raiemaster (1964); Lavvali (1966); and Garambeecha Bapoo, are now adopted for the stage; Yashoda (1966); State Sambhusanchya Chalit (1968) — awarded Govt. Prize as the best plays in the State competition; Tisra Phansa (a play, 1970). Address: 10, Tukaram Niketan, Mainak Wadi, Mahim, Bombay 16.

PILLAI, C. I. Parameswaran, B.A., B.L., Central Akademi Award for Malayalam Stage Acting (1959), a leading Malayalam Stage Actor; Chairman, Kerala Sangeet Natak Akademy, 1965-68; Kerala Govt. nominee, Central Sangeet Natak Akademi, 1967; member, faculty of Fine Arts, Kerala Univ., since 1960; Advocate and Legal Adv. to Kerala Co-op. Central Land Mortgage Bank Ltd., Trivandrum. b. Feb. 1898, at Alwaye; Educ.: Kottayam, Trichinopoly and Trivandrum; called to the Bar, 1930. Chief Legal Adv. to the Kerala Univ., 1955-60; Vice-Chairman, Kerala Sangeet Natak Akademi, 1956-59; engaged in amateur stage activity for over 40 years, developed his own style and technique in acting. Address: Advocate, Vanchiyoor, Trivandrum.

PILLAI, Namakkal Kavignar Ramalingam, Poet Laureate (1948), ex-M.L.C. (Madras). Tamil Writer. b. Oct. 19, 1888; Educ.: B. H. School, Namakkal; Arts Coll., Coimbatore. Professional Artist and portrait painter, 1909-20; joined the N. C. Movement, 1921; composed songs for the Movement; courted jail in the movement; gave up the artist's profession and contd. composing songs for the Gandhian cult; was popularly called the Gandhian poet; nominated M.L.C., Madras. Publications: Books of poetry, novels, research books and treatises: new commentary of Thirukkural. Address: Namakkal, Dt. Salem, Tamil Nadu.

PILLAI, P. S. Veerusami, Sangeetha Kalanidhi (1962), Nathaswara Vidva Sironmani, Esaikunamani Esaipperaringar (1959), National Award (1966), Nathaswaram Artist. b. 1901 at Perambur Village, Tanjore Dist.; Educ.: Learned Nagaswaram under his father; had further trg. under Vidwan Konerirajapuram Vaidyanatha Iyer, Violin Vidwan Govindasami Pillai and Vidwan Nagasuram Natarajasundaram Pillai; became Adheena Vidwan of Tiruvavaduthurai and Dharmapuram and Asthana Vidwan of Nachiar Devasthanam of Srivilliputtur and of T. T. Devasthanam, Tirupathi; had been honoured in the States of Cochin and Travancore and by several public bodies and heads of several Maths and Devasthanams in the South; awarded Mathyarsuna Mahanadhamani, by H. H. Sankaracharya of Kancheepuram, 1964. Address: Tiruvidaimarudur (Dt. Thanjavur), S. India.

PILLAI, Thakazhi Sivasankara, Malayalam Writer; Laywer. b. April 14, 1914; Educ.: Home Village; High School, Karuvatta; Law course, Trivandrum. Began writing at the age of 15; one of the pioneers of realism in Malayalam literature and the progressive movement in Kerala; won the Sahitya Akademi Award in 1957 for the novel Chemmeen which has been translated into Russian and Czech, and English; his novel Rantidangazhi is being translated into all the major languages in India by the Sahitya Akademi; member, Kerala Sahitya Akademi. Publications: More than 500 short stories and 15 novels. Address: Thakazhi, Ambalapuzhai, Kerala.

PISHAROTY, Dr. Pisharoth Rama, B.A. (Hons.), M.A. (Madras), M.A. (Calif.), Ph.D. (Calif.), Padma Shri (1970); Scientist; Professor, Physical Res. Laboratory, Ahmedabad. b. Feb. 10, 1909; Educ.: Trichinopoly, Bangalore and California (Los Angeles).

Conducted substantial research under Sir C. V. Raman at Bangalore; joined the India Meteorological Deptt., 1942; Research Meteorologist in U.S.A., 1952–54; Director: Colaba & Alibag Observatories, 1959-62; Instt. of Tropical Meteorology, 1962-66; is a member, Meteorological Soc.s in India, U.K., and U.S.A.; Fellow, Indian Academy of Scs.; Indian rep. at several intn'l meetings of the World Meteorological Org.s, since 1954; member: Joint Organising Cttee., W.M.O./ISCU; Chairman, WMO Adv. Cttee., 1968. Publications: 60 Scientific papers—about ten in physics and the rest on meteorology and geomagnetism. Address: Professor, Physical Research Laboratory, Ahmedabad 9.

PITAMBER DAS, B.A., LL.B., Politician; Vice-Pres., Bharatiya Jan Sangh, since 1961; Leader, J. S. Group in Rajya Sabha, since 1968. Educ.: Devanagri High School, and Meerut Coll., Meerut. Legal practice, 1932–58; Congressman till 1947; Sangchalak of R.S.S. for Mawana, U.P., 1946–51; convicted for R.S.S. activities; courted jail in Kashmir agitation and food agitation in U.P.; joined Jana Sangh at its inception, 1951; Pres. for Meerut Dist., Jana Sangh, 1951–54; Provincial Seey., U.P., 1955; Pres., Jana Sangh, U.P., 1956–58, 1961–62 & 1968–69; member, U.P. Leg. Council, 1956 and 1962; Leader, J.S. Leg. Party, U.P., 1962–68. Pres.: Bharatiya Jan Sangh, 1960; Shree Badrinath Temple Cttee., 1967; U.P. Universities Non-teaching Staff Fedn., 1968-69; member: Roorkee Univ. Syndicate, 1963–66. Address: 1, Vinayak Bhawan, A.P. Sen Road, Lucknow.

PODAR, Ramnath Anandilal, Industrialist and business man; Pres., F.I.C.C.I. for 1969–70. b. Jan. 21, 1910; Educ.: Marwari Vidyalaya High School. Joined father's business, 1927; Chairman: Podar Organisation; Indian Cotton Mills Federation, 1963–65; Export Credit Guarantee Corpn., 1962–64; Rajasthan Chamber of Commerce & Industry, 1957–58 & 1960–68; The Rajasthan Financial Corpn., 1955–68; Millowners' Assoc., Bombay, 1957–60; Cotton Adv. Board, 1946–52; Dir., State Bank of India, 1957–67; J.P.; M.P., 1952–54; Bombay Leg. Assembly, 1956–62; Bombay Municipal Corpn., 1943–52; Dy. Chairman, Bombay Textile Research Assoc., 1959–65; Pres., Indian Merchants' Chamber, 1966–67; member: Export-Import Adv. Council; All India Org. of Industrial Employers; Millowners' Assocn., B'bay; A. I. Assoc. of Industries; Ind. Nat. Cttee. of Intn'l Chamber of Commerce; Dir., many commercial and industrial enterprises. Address: Podar Chambers, Fort, Bombay 1.

POLSON, Minoo Pestonji, A.S.E., F.R.S.A., F.R.G.S., F. Inst. D., J.P., Chairman & Mg. Dir., Polson Ltd. b. Dec. 4, 1909; Educ.: Cathedral & John Connon High School, Bharda New High School and the Imperial Inst. of Animal Husbandry & Dairying. Founder and Ex-Chairman, Bombay Soc. of Model Engr.s, an Associate of the Soc. of Engrs, England, 1948; visited Deamark and U.S.A., 1962, under US-Aid N P C Programme, with Food Preservation and Food Canning Industry Study Team; awarded specially coined medal by His Holiness Pope Paul VI in appreciation of services rendered during the 38th Intn'l. Eucharistic Cong., 1965; apptd. on the Central Adv. Board of Educ., Parsi Panchayat, 1965; Pres., Empire of Indian Philatelic Soc.; Ex-Chairman, English Speaking Union (Bombay Branch). Address: Moti Mahal, Churchgate Reclamation, Rombay 20.

POTDAR, Datto Vaman, Mahamahopadhyaya (1946), Sahitya Vachaspati, Prayag, B.A. (Bombay), Hony. Doctor of Letters (Banaras Hindu Univ. and Poona Univ.) (1967), Padma Bhushan (1967), Chairman, Central Sanskrit Board, Govt. of India; Ex-Vice-Chancellor, Poona Univ. b. Aug. 5, 1890; Educ.: Poona. Orator, Educationist; research in Maharatta History and Literature; founded the Indian History Congress, Poona, 1935; presided over its Delhi session, 1948; President's Award (Sanad), 1961; Pres., Marathi Sahitya Maha-Mandala; Kul-Guru, Tilak Vidyapeeth, Poona; Pres., Maharashtra Rashtra Bhasha Sabha; led Vice-Chancellors' delegation to U.S.S.R. and visited the Mongolian Republic 1963. Potdar Commemoration Volume, presented on Oct. 28, 1950. Publications: A History of Marathi Prose Literature, Inside Maharashtra, Srote Hol Me Yuropant Kay Pahilen, etc. Address: 498, Shanwar Peth, Poona 2.

PRARASA, Sri, B.A. (Allahabad), B.A., LL.B. (Cantab.), Bar-at-Law, Padma Vibhushan, 1957, Educationist, journalist and politician. b. Aug. 3, 1890. Educ.: Allahabad; Cambridge; called to the Bar, 1914. Member, A.I.C.C., 1918-45; Gen. Secv., U.P.C.C., 1928-34, and Indian National Congress (1929-31); Pres., U.P.C.C., 1934-35; M.L.A. (Central), 1934; re-elected, 1945; often imprisoned for Congress activities; member, Indian Constituent Assembly from U.P., 1946; Indian High Commr. in Pakistan, 1947-49; Governor of Assam, 1949-50; Union Min. of Commerce, 1950-51; Union Min. for Natural Resources & Scientific Research, 1951-52; M.P., 1952; Governor: Madras, 1952-56; Bombav (later Maharashtra), 1956-62. Publications: Annie Besant; Pakistan—Birth and Early Days (In English and Hindi); Grihasta Gita; Nagarik Shastra (in Hindi). Address: Sevashrama, Sigra, Varanasi 1; Vishranti Kutir, Rajpur, Dehra Dun.

PRAKASH, Dr. Brahm, M.Sc., Ph.D., Sc.D., Padma Shri (1961), Bhatnagar Memorial Award for Engg. Sciences (1963), Padma Bhushan 1967, Fellow, National Inst. of Sciences; Director, Metallurgy Group, Bhabha Atomic Research Centre. b. Aug. 21, 1912; Educ.: Punjab Univ., Lahore; Massachusetts Institute of Technology, Cambridge, Massachusetts (USA). Prof. and Head of the Dept. of Metallurgy, Indian Institute of Science, Bangalore, 1951-57; Scientific Secy., 1st Conference on Peaceful Uses of Atomic Eneggy, UN, Geneva, 1955; Scientist, B.A.R.C., since 1957; directed the design and construction of fuel fabrication plant at the Bhabha Atomic Research Centre. Publications: Some 25 research and scientific papers in physical chemistry and metallurgy especially on the extraction of zirconium. Address: Bhabha Atomic Research Centre, Apollo Pier Road, Bombay 1.

PRASAD, Baleshwar, M.A. (English), I.A.S., Ambassador to Burma, since Feb. 70. b. Jan. 1, 1914; Educ.: Patna Coll., Patna Univ. I.A.S. Officer in Bihar, 1950–56; Political Adv. to the Indian Delegation to Intn'l Commn. for Supervision and Control in Viet Nam (1956–59); Dewan of Sikkim (1959–63); Chief Commissioner, Manipur, 1963–69 & Lt. Governor, Dec. '69–Jan '70. Address: C/o External Affairs Ministry, New Delhi.

\*\*PRITAM, Smt. Amrita, Padma Shri (1969), Sahitya Akademi award (1956), Writer, Editor, Nagmani (monthly). b. Aug. 31, 1919; Educ.: Lahore (Punjab). Edited a monthly in Punjabi, Navin Dunian, 1938-40; Staff Artist, A.I.R., 1948-60; started a Punjabi monthly, 'Nagmani', May 1966. Publications: 14 collections of poems, 13 novels and six collections of short stories. Address: K 25, Hauz Khas, New Delhi 16.

PURACHATRA, His Highness Prince Prem, M.A. (Oxon), D.Litt., Thai Ambassador to India, Ceylon, and Nepal & Minister to Afghanistan. b. Aug. 12, 1915; Educ.: Harrow and New College, Oxford. Lecturer at Chulalongkorn Univ., Bangkok, 1938—42; Head of Modern Languages Dept., Chulalongkorn Univ., 1942-62; Rajpandit (Academician), 1942; Special Professor of Chulalongkorn, Thammasat Univ. Publications: Magic Lotus, Siamese Idyll, The Story of Khun Chang Khun Phan; Phra Abhai Mani; The Songgran Moon, etc. Address: The Royal Thai Embassy, 56-N, Nyaya Marg, Chanakyapuri, New Delhi-21.

PURI, Yogendra Krishna, I.C.S., Indian High Commissioner to Ceylon, since Dec. 1969. b. July 25, 1916; Educ.: Govt. Coll., Lahore; Univ. Coll., London. Joined the I.C.S., 1938; served in Assam successively as Asstt. Commr., Under-Secy. (Pol.) and Secy., Supply Deptt. till Oct. 1946; apptd. to the Fin. & Commerce Pool, Govt. of India, 1946; Dy. Secy., Fin. Min., July 1947; Min. without Portfolio, Oct. 1947; Dir.-Gen., Rehab. Min., 1948; Dy. High Commr. for India in Pakistan, Lahore, 1948-51; Dy. Secy., Min. of Ext. Affairs, 1951-53; Counsellor, Indian Embassy, Paris, 1953-55; Counsellor, Indian High Commn., London, Sept. to Dec. 1955; Jt. Secy., Min. of Ext. Affairs, 1956-60; High Commr. in Malaya 1960-64; Amb. to: Morocco and Tunisia, 1964-67; Sweden, 1968-69. Address: C/o Ministry of External Affairs, New Delhi.

PURUSHOTTAM, Jatavallabha, M.A. (Madras) in Sanskrit and Telugu, Sanskrit Writer; Pres., Andhra Pradesh Viswa Hindu Parishad; Member, Classical Languages Devpt. Cttee., A. P. Govt. b. Aug. 2, 1906; Educ.: Taylor High School, Narsapur; Maharajah's Coll., Vizianagaram. Lecturer in Sanskrit, S.R.R. & C.V.R. Govt. Coll., Vijayawada, 1948-61; Principal, S.V.J.V. Sanskrit Coll., Kovvur and Head of Sanskrit Deptt. in Govt. Colleges (1932-66); Principal, P.S.N. Sanskrit Coll., Kakinada; Congress Detenu, 1943. Publications: Vedic Women; Women in the Smritis; Hinduism; Introduction to Bhagavat Gita; Bharatiya Vaibhava; Dharma Manjari; Jagadguru Prasamsa; Chitra Sataka. Address: Marla Lane, Kakinada.

PUTTASAMAYA, B., Sahitya Akademi Award (1964), Kannada Writer. b. May 27, 1897; Educ.: St. Joseph's Coll., Bangalore. Took up journalism at an early age; worked as leader writer and gen. editor of various Kannada dailies and weeklies, Janavani, Mathru Bhoomi, Prajamatha; Founder-Editor, Prajavani, 1948. Publications: Plays: Kurukshetra; Dasavathara; Ramayan; Buddha; etc.; Novels: social: Abhisarike; Sushamayi; Ardhangi, etc., Kranthi Kalyan won the Sahitya Akademi Award for the last part of the book published in 1963; Mysore State Award for Literature in 1966 & Rashtrakavi by Siringere Matt. Druva Swamini, Chahakattida Samrajya, Bichugathi, Babravahana (Plays); Prabhu Deva, Deva Suparna (novels). Address: 1st Cross, Sreeramapuram, Bangalore 21.

PUVVADA, Seshagiri Rao, 'Kavipadusha', poet, scholar and writer of Andhra. b. in Movva, 1906. An educationist; also a broadcaster; participated in the Nat. Symposium of Poets inaugurated by President Rajendra Prasad, 1958; member, Adv. Panel, Anglo-Intra Indian Multi-Lingual Dictionary; Dir., Dramatic Assoc. Publications: Kavyas, novels, plays and essays, Satapatram; Govatsam; Taj Mahal; Dara: Palavelli; Andhra Tejam; Aura; Evaru; Madhu Kalasamu; Parasuramudu; Durga Das; Prithvi Putri; Pratapa Rudrama Devi; Tissa Parishkaramu; Prana Rakshana Sahapankti; Silpakuvyam; Nandanar; Laksmi Swayamuram, etc.; Ballad: Raktatarpanam. Address: Professor of Telugu, National College, Masulipatam.

QERESHI, Mohd. Shafi? M.A., LL.B., Deputy Minister for Steel & Heavy Engineering, Govt. of India, since Feb. 1969. b. Nov. 24, 1929; Educ.: Christian Mission Society, Hadow Memorial High School, Amar Singh Coll. (Srinagar), M.A. & LL.B., from Aligarh Univ. Was advocate in Srinagar; elected to: the Rajya Sabha, May 1965; Lok Sabha, 1967; formed the Congress in Kashmir and became founder Pres., National Congress in Jammu & Kashmir; Dy. Min. of Commerce, Govt. of India, 1966–69. Address: 13, Ashoka Road, New Delhi; Qureshi Manzil, Sonawar Bagh, Srinagar (Kashmir).

RACHAIAH, Basavaiah, B.Sc., B.L., Min. for Agriculture, Mysore, since May 29, 1968. b. Aug. 10, 1922; Educ.: Central Coll. and Govt. Law Coll., Bangalore. Member, Mysore Leg. Assembly from Yelandur, 1952, Chamarajanagar in '57 and 1962 & 1967 from Santhemorahalli; Pres., Mysore State Bharatiya Depressed Class League: founded educ. Instts. and harijan hostels; toured Japan for 3 wks. and led Indian delegation to World Sericultural Cfee. at Beirut, 1965; Minister for Forests, Fisheries and Sericulture, Mysore, 1962-67 and Revenue & Forests, 1967-68. Address: Vidhana Soudha, Bangalore 1.

RADHAKRISHNAN, Dr. S., O.M. F.R.S.L. M.A., D.Litt. (Hon.), LL.D., D.C.L., Litt. D., F.B.A., Bharat Ratna (1954), German pour la merite (1955), Master of Wisdom (Mongolia) (1957), Goethe Plaquette (1959), Hon. D.Ph., Teheran Univ. (1963); Hon. Doctor of Laws, Penn-Sylvania Univ. (1963); Hon. D. Litt., Tribhuvan Univ. (1963); Hon. Ph.D., Moscow Univ. (1964), Hon. Doctor of Laws, National Univ. of Ir. land (1964); The Golden Spur (1964); Hon. Doctorate, Zagreb Univ. (1965); Hon. Doctorate, Haile Selassie I Univ. (1965), Hon. Doctor of Letters (B.H.U.) (1967), Ex-President, Indian Republic; Philosopher Statesman. b. 5th Sept. 1888; Educ.: Madras Christian College. For some time Prof. of Philosophy, Presy. Coll., Madras and in Mysore Univ.; Upton Lecturer in Comparative Religion, Manchester Coll., Oxford; Hibbert Lecturer, 1929–30; Vice-Chancellor, Banares Hindu Univ., 1939–48; Spalding Prof. of Eastern Religion and Ethics, Oxford, 1936-52; George V Prof. of Philosophy, Calcutta, 1921-39; member, Intn'l Cttee. on Intellectual Co-op., 1931-39; member and leader, Indian Delegation, UNESCO, 1946, 1947, 1948, 1949, 1950; Pres., 1952; elected Chairman of the Exec. Board, UNESCO, 1948; Chairman, Univ. Commn., Govt. of India, 1948; Indian Amb. Extraordinary and Min. Plenipotentiary to Soviet Russia, 1949-52; Chancellor, Delhi Üniv., 1953–1962; Chairman, Indian P.E.N.; Vice-Pres., Intn'l P.E.N. Elected Vice-Pres., Indian Republic, 1952 and again 1957, received the Hony. Professorship of Moscow Univ., June 18, 1956; Attended East-West Philosophers' Cfce. in Ronolulu, attended the P.E.N. Congress in Germany, July 1959; attended the UNESCO Cice. at Paris, Nov. 1960; acted as President of India, June-July 1960 and Aug.-Sept. 1961; elected Hon. Fellow of the British Academy, July 11, 1962; apptd. by Queen Elizabeth as an Hon. Member of the Order of Merit, Buckingham Palace, on June 12, 1963: awarded by H. H. Pope Paul VI, the Golden Spur, the highest Vatican award, during his visit to Bombay, Dec. 4, 1964; visited several foreign countries on goodwill visits and State visits several times; President, Indian Republic, 1962-67. Publications: Philosophy of Rabindranath Tagore, Reign of Religion in Contemporary Philosophy, Indian Philosophy 2 Vols., The Hindu View of Life, An Idealist View of Life, East and West in Religion, Kalki or the Future of Civilisation, The Religion We Need, Gautama the Buddha. Eastern Religions and Western Thought, India and China,

Religion and Society, Education, Politics and War, Bhagavadgita, Dhammapada, The Principal Recovery of Faith, East and West, Some Reflections, Brahma Sutra, Fellowship of the Spirit: On Nehru, 1965; Speeches & Writings, 1965; Religion in a Changing World, 1967. Articles on Indian Philosophy and others in Encyclopaedia Britannica. Address: "Girija", 30, Edward Elliot Road, Madras 4.

RAGHAVACHARI, Neman Echambadi Srinivasa, M.A., I.C.S. Chairman, Damodar Valley Corpn. b. June 10, 1912; Venkatagiri Rajah's Coll., Nellore and Presidency Coll., Madras; passed I.C.S., 1935. Served the Madras Govt. in various capacities till he became Jt. Provincial Textile Cmmr., Madras, 1945-47; Agent of Govt. of India in Ceylon, Kandy, 1947-48; First Secyl to the Indian High Commr., Ceylon, 1948-51; Rep., U.N. Tech. Assistance Adm. for Asia and Far East, Bangkok, 1951-53; Collector of Malabar, 1953-54; Dir. of Community Devpt., Madras, 1954-56, Chief Secy. to Govt. of Kerala, 1956-60; Dir.-Genl., Supplies & Disposals, Govt. of India, 1960-63; Addl. Secy., Min. of Comm. Devpt. & Co-op., 1963-65; Advisor to Governor of Kerala, 1965-67. Address: Bhabani Bhavan, Calcutta 27.

RAGHAVAN, Dr. Venkatarama, Padma Bhushan (1962), M.A., Ph.D. Member L'Ecole Française d'Extreme Orient Hanoi (1948), Austrian Academy of Sciences, 1958 and Noble Order of St. Martin, Austria 1967; Kane Gold Medal, Bombay Asiatic Soc. 1953, Kavi-Kokila 1954, Fellow, Sangeet Natak Akademi, 1964, Sahitya Akademi Prize Winner, 1967; J. Nehru Fellow, since 1969; Sanskrit Scholar; Writes in English, Sanskrit & Tamil; Edits Journal of Oriental Research of the Madras Music Academy and Samskrita Pratibha; b. Aug. 22, 1908; Educ.: Tiruvarur; Presidency Coll. Madras. Research Scholar, Madras Univ. 1931-34; Sanskrit Dept., Madras Univ. in diverse capacities 1935-68; visited Europe, U.S.S.R., U.S.A., Japan and S.E. Asia on a lecture tour and Survey of Sanskrit MSS. was Prof. and Head of the Dept. of Sanskrit, Univ. of Madras. Publications: About 80 books and 800 papers: New Catalogues Catalogorum; Bhoja's Srngara Prakasa (Sahitya Akademi Prize Book); Number of Rasas, Concepts of Alankara Sastra; Srangaramanjari, Love in the Poems and Plays of Kalidasa; Sanskrit & Allied Indological Studies in Europe; The Indian Heritage; Great Integrators - Saint-Singers of India; etc. etc. Address: Professor of Sanskrit, Univ. of Madras, Madras 5; 7, Srikrishnapuram St., Madras 14.

RAGHU RAMAIAH, Kotha, M.A., LL.B., Bar-at-Law, Minister for Parliamentary Affairs, Shipping & Transport, Govt. of India, since June 27, 1970. b. Aug. 6, 1912; Educ.: Andhra Christian Coll., Gentur; Lucknow Univ.; Middle Temple, London. Practised in Madras High Court, 1937-41; held various posts in the Tamil Nadu Govt. and Govt. of India; enrolled as Advocate, Supreme Court; member: Estimates Cttee., Lok Sabha, 1954; Exec. Cttee., Congress Party in Parliament, 1954; Indian Instt. of Public Adm., 1954; Indian Central Tobacco Cttee., since 1953; in Lok Sabha in various Cttees.; Secy., Congress Party in Parliament, 1955; Dy. Min. for Defence, 1957-62; Min. of State in the Defence Min., April-Nov. 1962; Minister of Defence Production, 1962-64; Union Min. for Supply and Tech. Devpt., 1964-66; Min of Supply, Tech. Dev., and Materials Planning, 1966-67; Min. of State in Min. of Petroleum & Chemicals, 1967-69; Min. of State for Parly. Affairs, Shipping & Transport, 1969-70. Address: 14, Asoka Road, New Delhi.

RAGHUBIR SINH, Maharaj Kumar Dr., M.A., D.Litt., LL.B., Hindi writer & Historian. b. Feb. 23, 1908; Educ.: At home and the Holkar Coll., Indore; Agra Univ.

Participated in the Chamber of Princes affairs; brought about the formation of the Madhya Bharat Union, 1948; M.P. (Rajya Sabha), 1952-62; awarded the Mangala Prasad Prize, 1945, for his Hindi book Malwa Men Yugantar; Corresponding member, Ind. Hist. Rec. Comm. 1937-42 and since 1952. Publications: (Hindi) Purva-Madhyakalin Bharat, Bikhare Phool, Sapta Deep, Malwa Men Yugantar, Shesha Smritiyan, Jeevan Dhuli, Jeevan Kan, Ratlam ka Pratham Rajya; (English) Malwa in Transition, Indian States and the New Regime. Address: "Raghubir Niwas", Sitamau (Malwa-M.P.).

RAHMAN, Habib, B.E. (Cal.), M. Arch. (M.I.T.), Padma Shri (1955), Senior Architect to the Govt. of India, since \$953. b. March 1916; Educ.: Calcutta Univ. and M.I.T. (U.S.A.). Worked in leading Architectural Firms of Boston and New York, 1944-46; Senior Architect, West Bengal Govt., 1947-53; member, Lalitkala Akadami, 1956; Fellow of Indian Instt. of Architects, 1957; designed and constructed over 100 buildings all over India, imp. among them being West Bengal's 13 storeyed Secretariat, Gandhi Ghat, Calcutta, W.H.O. Bldg., New Delhi, Rabindra Bhawan (National Akadamies), New Delhi, Maulana Azad's Tomb, Delhi Zoo, 23-storeyed Diba Bldg., New Delhi, etc. Address: 6/3, M. S. Shah Jahan Road, New Delhi 11.

RAI, Amrit, M.A., Sahitya Akademi Award (1963), Hindi Writer. b. Aug. 15, 1921; Educ.: Lucknow, Banaras and Allahabad. Edits Nai Kahaniyan; a Marxist; was in political detention, 1950. Publications: Novels: Bhatiyali; Sukh-Dukh; Jangal; Hathi Ke Dant; Story Collections: Itihas; Qasbe Ka Ek Din; Kathgharey; Bhor se Pahle; Gili Mitti; Chitraphalak; Lal Dharti; Jeevan Ke Pahlu; Literary Criticism: Nayee Sameeksha; Biography: Premchand — Qalam Ka Sipahi (Sahitya Akademi Award for best original work in Hindi, 1963); translated from English, Urdu and Bengali; his translation of Howard Fast's 'Spartacus' Advidrohi, won the Govt. of India's best translation Award, 1958; translation of Hamlet; Ramyaa, collection of light essays; Sahchintan, a book of creative criticism; Chandiyon ki ek Jhalar (a play) & 'Samargatha', translation of Howard Fast's 'My Glorious Brothers'. Address: 18, Hastings Road, Allahabad.

RAI, Daroga Prasad, B.A. (Hons.), Chief Minister, Bihar. b. Sept. 2, 1923, in Banahiya Village, Saran Dist.; Educ.: Parsa High English School; Rajendra Coll., Chapra; B.A. (Hons.) in Economics, T.N.J. Coll., Bhagalpur. Took active part in the non-co-operation movement; courted imprisonment in freedom movement; elected M.L.A., Bihar, 1952, 1957, 1962, 1967 and 1969; was member, Saran Dist. Board; Dy. Min. for Comm. Devpt., Bihar, till 1961; Minister for Labour, 1961-63; member, A.I.C.C.; has been actively associated with labour movement and has held responsible posts in various labour unions. Address: Patna.

RAJABHOJ, Pandurang Nathuji, J.P., Journalist and Agriculturist. b. March 15, 1905; Educ.: Poona. Member, I. N. Congress, 1930-36; Secy., All-India Depressed Classes League, 1935-37; Rep. of the depressed classes on the Franchise Cttee. of the Simon Comm.; often imprisoned during Satyagraha movement of Scheduled Castes in Poona, Bombay, M.P., U.P., Nasik, Jabalpur, etc.; Gen. Secy., A.I.S.C.F., 1942-54; attended the first two World Buddhist Cfces.; Pres.: Indian Buddhist Soc.; widely trevelled; has now rejoined the Congress; member, A.I.C.C., since 1961; Lok Sabha, 1952-57; Rajya Sabha, 1957-62. Publications: Lashkari Pesha (Marathi); pamphlets in Marathi on Buddhism; translation of Dr. Ambedkar's books. Address: 207, Ghorpade Peth, Poona 2.

RAJADHYAKSHA, \*Mangesh Vithal, M.A., J.P., Writer; Prof., Elph. Coll., Bombay. b. June 7, 1913; Educ.: Elphinstone Coll., Bombay. Taught English at the following Govt. colleges: Gujarat Coll., Ahmedabad; Rajaram Coll., Kolhapur and Ismail Yusuf Coll., Bombay, since 1936; Member: National Book Trust, India; Adv., Board for Marathi, Sahitya Akademi, New Delhi; Govt. of India Panel of Advisors on the Import of Pornographic Literature; Film Advisory Board; Adv. Bd., Commercial Broadcasting Service. Publications: Panch Kavi (1946); Akash Bhashite (1963); Khardeghashi (1963). Address: 7, Jairaj House, 141, Colaba Road, Bombay 5.

RAJADHYAKSHA, Vasant Ganpat, B.Sc., B.Sc. (Tech.), M.Sc. (Engg.), Chairman, Hindustan Lever Ltd., since June 1968. b. Jan. 19, 1924; Educ.: India and U.S.A. ICI Dyestuffs, Manchester (1947–48); Unilever Ltd., London (1948–49); joined Lever Brothers (India) Ltd., 1949; Factory Manager: Shamnagar (1953–58); Garden Reach (1958–62); General Factory Manager, Bombay Factory (1962–64); Senior Technical Officer (1964–65); Development Director (1965–66); Technical Director (1966–68); Vice-Chairman (May 1968); Chairman: Devpt. Council for Organic Chemical Industries; Vanaspati Manufacturers' Assoc. of India; Pres., General Cttee., Bombay Chamber of Commerce & Industry; Member, Board of Governors, Administrative Staff Coll. of India, Hyderabad; Pres., Bombay Branch, Operational Research Society of India. Address: E/5, Mafatlal Park, Bhulabhai Desai Road, Bombay-26.

RAJAGOPALACHARIAR, C., B.A., B.L., Bharat Ratna (1954), Leader, Swatantra Party. b. 1878 in Salem Dist.; Educ.: Central Coll., Bangalore; Presidency Coll. and Law Coll., Madras. Joined Bar in 1900; joined Satyagraha campaign, 1919 and Freedom Movement in 1920; edited Mahatma Gandhi's Young India during the latter's imprisonment; Gen. Secy., Ind. Nat. Congress, 1921-22; member, Working Cttee. of Congress, 1922-42 and 1946-47; imprisoned on five occasions in Congress campaigns; Vice-Pres., Dakshin Bharat Hindi Prachar Sabha; Prime Min., Madras 1937-39; resigned with other Congress Ministers, Oct. 1939; resigned in April 1942 from Congress on account of difference of opinion; assisted Mahatma Gandhi in the Gandhi-Jinnah talks in Sept. 1944; member, Governor-General's Council, 1946-47; Governor of West Bengal, Aug. 1947; acted as Governor-General of India, Nov. 1947; Governor-General of India, June 1948-Jan. 26, 1950; Min., Govt. of India, without portfolio, May-Dec. 1950 and Home Affairs, Jan.-Nov. 1951; Chief Min., Madras, 1952-54; as Spokesman, Three-man Indian delegation from the Gandhi Peace Foundation to canvass support for the prohibition of nuclear tests, visited America, England and Rome, Oct. 1962. Publications: Tamil books on Socrates, Marcus Aurelius, Bhagavad-Gita, Mahabharata, Ramayana and Upanishads; Fables and Short Stories: (in English) Mahabharata, Ramayana, Bhagavad-Gita, Upanishads, Voice of The Uninvolved, Kambaramayanam-Ayodhya Kandam (a UNESCO publication); principal contributor, Swarajya Weekly; and Hinduism Doctrine and Way of Life. Address: Naoroji Road, Madras 31.

RAJAGOPALAN, Ramanatha, A.M.I.M.E. (Lond.), A.M.I. Loco. E., General Manager, Integral Coach Factory, Madras, since 1969. b. March 21, 1913; Educ.: Tiruchirapalli. Joined the Indian Railways, 1931; held important positions in Mechanical Engg. & Transp. (Power) Deptt., Indian State Railways; was in charge of planning of the Furnishing Annexe, Integral Coach Factory and Wagon Design and Mechanical Directorate, Research,

Design & Standards Organisation; Director, Mechanical Engg. & Wagon Production & Steel Procurement, Min. of Rlys., 1962-65; Chief Mechanical Engineer, Integral Coach Factory, 1965-68. Address: General Manager, Integral Coach Factory, Madras 38.

RAJGURU, Pandit Basavaraj, Ganakokila, 1938, Sangeet Sudhakar, 1941, Sangeet Ratna, 1947, Musician. b. Aug. 24, 1920, at Dharwar; Educ.: Took his lessons in music from his father and later from experts. Has recorded many popular songs; has participated in many music cfees.; broadcasts frequently from almost all stations of the A.I.R.; is one of the sponsors of the World Congress for General Disarmament and Peace; is member, Sangeet Natak Akademi, Mysore State; Chairman, Board of Examiners for Hindustani Music, Mysore State. Publications: Sangit Tarangini (under print). Address: Rajguru Building, Malamaddi, Dharwar.

RAJNARAIN, B.A., LL.B., M.P., Social Worker. b. 1917; Educ.: Middle School, Gangapur, Harischandra Coll., Banaras Hindu Univ., Varanasi. Was leader of the opposition in the U.P. Assambly, 1952-55 and Chairman, Socialist Party of India; member: National Exec., P.S.P., till 1955; National Cttee., S.S.P., since its formation; was Gen. Secy., S.S.P.; M.P., Rajya Sabha, since 1966; Convenor, Vigilance Cttee. to supervise the working of the ministries of the party in the non-Congress ministries in various states; visited Iran and Kabul in Aug. & Sept. 1967 as a member of a Parliamentary delegation. Address: Leela Niwas, Pandaiba, Lucknow.

RAKESH, Mohan, M.A. (Skt. and Hindi), M.O.L., Sangeet Natak Akademi Award (1959), award as a Playwright (1969), Playwright, novelist, an initiator of new short story movement in Hindi. b. Jan. 8, 1925; Educ.: Hindu Coll., Amritsar; Oriental Coll., Lahore. Teacher, Elphinstone Coll., Bombay, Bishop Cotton School, Simla and D.A.V. Coll., Jullundur, 1947-57; Editor, Sarika, a Times of India Publication, 1962-63; has travelled widely in India and abroad. Publications: Andherey Band Kamrey; Na Aane Wala Kae; Akhiri Chattan Tak (a travelogue); Ashadh Ka Ek Din, Lehron Ke Rajhans; Aadhe Adhure: collections of short stories and a number of edited and translated books, critical essays. Address: R. 522, New Rajendra Nagar, New Delhi 5.

RAM, Dr. Bharat, Chairman, Board of Directors & Director, Mg. Agents, Delhi Cloth & General Mills Co., Ltd.; Pres., International Chamber of Commerce, 1969-71. b. Oct. 5, 1914; Educ. : St. Stephen's Coll., Delhi. Chairman, Board of Directors: Coromandel Fertilisers Ltd.; Shriram Bearings Ltd.; Bengal Potteries Ltd.; DCM International Ltd.; Dir.: Escorts Ltd.; Bajaj Electricals Ltd.; East India Hotels Ltd.; New India Assurance Co., Ltd., etc.; Member: National Commission on Labour; All India Council for Technical Education; Exports Promotion Advisory Council; Council of Inventions Promotion Board; Export Import Advisory Council; Indian National Cttee. of ICC; Cttee. of All India Organisation of Industrial Employers & C. and several other bodies; Leader, Indian Businessmen's Goodwill Mission to Africa, 1965; Member: Goodwill Trade Mission sponsored by FICCI; Cotton Textile Wage Board, 1957-59: Hony, degree of Doctor of Laws by Aligarh University, Jan. 1964; ex-Chairman, I.A.C. Address: 25, Sardar Patel Road, New Delhi.

RAM, Jagivan, B.Sc., Hon. D.Sc. (Vikram Univ.), Minister for Defence, Govt. of India, since June 1970; Pres., Indian National Cong. (R). b. April 1908 at Arrah in Bihar; Educ.: Banaras Hindu Univ.; Calcutta Univ.

Pres., All India Depressed Classes League, 1936-46: member, A.I.C.C., since 1940: jailed in the freedom movement; Secy., Bihar P.C.C., 1940-46; appeared before the Cabinet Mission as the accredited leader of the Scheduled Castes, 1946; elected Chairman, Preparatory Asia Regional Cfce., I.L.O. held in New Delhi. Oct.-Nov. 1947; member: Indian Institute of Public Administration; Gandhi Smarak Nidhi; Vallabhbhai Patel Memorial Trust; Congress Working Cttee. since 1948; Trustee: Nehru Memorial Trust; leader, Indian Delegation to 33rd Session of I.L.O. Cfce., June 1950 and unanimously elected Chairman of the Cfce.; member: Central Parly. Board, A.I.C.C., since 1950; Central Election Cttee., 1951; Congress Eco. Plng. Cttee. since 1950; was Pres. of several trade unions; Labour Min., Govt of India, 1946-52; Union Communications Min., 1952-56; was responsible for the nationalisation of air transport in India; Min. for: Transport & Rlys., 1956-57; Rlys., 1957-62; Transport & Communications, 1962-63; resigned under the "Kamaraj Plan," Aug. 1963; Min. for: Labour, Employment & Rehab., 1966-67; Food, Agriculture, Community Devpt. & Co-op., 1967-70; Leader, Indian Delegation to the Asian Labour Ministers' Cfce., Manila, Nov. 1966. Address: 6, Hastings Road, New Delhi 11.

RAM NARAYAN, Pandit, a leading Sarangi player. b. 1928 in Udaipur. Took to music early in life; was trained in vocal music as well as in sarangi by eminent music teachers; staff artiste with the A.I.R., Lahore, and Delhi; has accompanied on the sarangi almost all the leading musicians of the day; raised sarangi to full length solo concert status and has been playing solo since 1960; has travelled extensively in several Asian and European countries giving performances; was member, Indian Cultural delegation to Asian countries; toured all over the world, 1968. Address: 20, Sujata, Swami Vivekananda Road, Bandra, Bombay 50-A.S.

RAMACHANDRAN, Deivanayagam, Minister for Public Works, Pondicherry, since April 1969. b. Jan. 31, 1934; Educ.: St. Joseph High School, Cuddalore; Loyola Coll., Madras. Pres., Pondicherry Co-op. Processing Supply and Marketing Society; represented Pondicherry in the Agricultural confce. at New Delhi, 1966 and the Central State Sugarcane Cttee. at Bangalore, 1965. Address: Reddiar Street, Maducarai P.O. (Via Mokshakulam), Pondicherry.

RAMAMURTI, P., M.P., Member, Polit Bureau, C.P.I.(M.). b. Sept. 20, 1909; Educ.: Banaras Univ. and Presidency Coll., Madras. Courted Jail in 1930-32 Congress Movement; political worker, ever since; was in the executive of the Tamilnad Congress Socialist Party, 1935-39; member, A.I.C. for about 4 years; Working Cttee. member, A.I.T.U.C.; a top ranking Trade Union leader in Tamil Nadu; is an orator; went to I.L.O. Conference, 1946. Publications: Kandal Deepavati (on cloth famine, in Tamil Nadu); Open Letter to Kumarasani Raja. Address; Mandian Asari Lane, Town Hall Road, Madurai (Tamil Nadu).

RAMAN, Sir Chandrasekhara Venkata, Kt., M.A., Hon. Ph.D. (Freiburg), Hon. LL.D. (Glasgow), Hon. D.Sc. (Paris), and Bordeaux, Nobel Prize for Physics (1930); Franklin Medallist of the Franklin Instt., Philadelphia; Int. Lenin Prize for 1957; Foreign member, Soviet Academy of Sc.s (1957); Foreign Associate, Paris Academy of Sc.s (1949); Pontifical Academician (1961); Hon. Fellow, Royal Society of New Zealand. b. Nov. 7, 1888; Educ.: A.V.N. Coll., Vishakapatnam & Presidency

Coll., Madras. Officer, Indian Fin. Dept., 1907-17; British Assoc. Lecturer (Toronto), 1924; Research Associate, California Instt. of Tech., 1924; Mateucci Medallist, Rome, 1929; Hughes Medallist of the Royal Society (1930); Hon. Fellow, Zurich Phys. Soc., Hungarian, Czechoslovak and Rumanian Acad., Royal Irish Acad., Chinese Phys. Soc., Royal Phil. Soc., Glasgow, Optical Soc. of America, Franklin Instt., Societe Philomathique (Paris); Pres., Indian Acad., of Soc., 1934: National Research Prof. of Physics, 1949. Publications: Molecular Diffraction of Light; Music Instruments; The Physiology of Vision; and many scientific papers in Indian, British and American Journals. Address: C/o Raman Research Institute, Hebbal, Bangalore-6.

RAMAN, O. P., B.A., B.L., Minister for Electricity, Govt. of Tamil Nadu, since Feb. 1969. b. July 22, 1936; Educ.: St. Mary's, High School, Dindigul; American Coll., Madurai Law Coll., Madras. Took keen interest in the activities of D.M.K. even while at School; elected to the State Assembly from the Melur South Constituency, 1967. Address: No. 1, Bhaskarapuram, East Abhiramapuram, Madras 4.

RAMANATHAN. Kalpathi Ramakrishna, M.A., D.Sc., F.N.I., Padma Bhushan (1965), Scientist, Prof., Physical Research Laboratory, Ahmedabad; Chairman, National Cttee. for the International Hydrological Decade, since 1965. b. 1893; Educ.: Victoria Coll., Palghat; Presidency Coll., Madras. Hon. Dir., Trivandrum Observatory; Supdtg. Meteorologist & Dy. Dir-Gen. of Observatories, 1939-48; Pres., Indian Sc. Congress, Mathematics and Physics Section, Lahore, 1939; Pres.: Intn'l. Assoc. of Meteorology, 1951-54; Intn'l. Union of Geodesy and Geophysics, 1954-57; Chairman, Geophysics Research Board; Pres., Intn'l. Ozone Commn., 1959; Hony. Fellow, Royal Met. Soc., Lond., 1960; awarded Int. Met. Org. Prize and Medal, 1960; Main fields of research: Problems of molecular scattering of light in fluids. Publications: Contributions to Indian and foreign scientific journals. Address: Physical Research Laboratory, Navrangpura, Ahmedabad 9.

RAMANNA, Dr. Raja, B.Sc. (Hons.), Ph.D., Padma Shri (1968), Shanti Swarup Bhatnagar Memorial Award for Physical Science (1963), Prof., Tata Instt. of Fundamental Research and Dir., Physics Group, Bhabha Atomic Research Centre, Bombay, since 1953. b. 1925, at Bangalore; Educ.: Bishop Cotton School, Bangalore; Madras Christian Coll., Madras. Collaborated in the design of the Apsara reactor; now in charge of the utilisation of the three reactors at Trombay for research in nuclear physics and solid state physics; Pres., Physics Section, Golden Jubilee Session of the Indian Science Congress; attended many Intul. Cfee.s and was Chairman of many of the sessions; is Chairman: I.P.A. Project (Neutron Spectrometry); Mg. Cttee., Jt. Project "NORA" between Norway and the Int. Atomic Energy Agency. Publications: Many papers on neutron thermalisation, nuclear reactions and fission physics. Address: Bhabha Atomic Research Centre, Bombay 74.

RAMANUJACHARI, R., M.A., Vidyaratna and Tattvasastraratna, Prof., Centre for Advanced Study of Philosophy, Univ. of Madras; formerly Dean, Faculty of Philosophy and Educ., Annamalai Univ. b. Dec. 6, 1902; Educ.: Presideacy Coll., Madras. Univ. rep. at the 8th Quinquennial Session of the Congress of Univs. of the British Commonwealth at Montreal, and visited Univs. and cultural instts. in U.S.A. and the U.K. Publications: Critical editions of Indian philosophical classics with English translations, such as Nyayakulisa, Nitimala, Siddhiraya and

Bhavanopanishad; publications in Tamil on psychology, such as Educational Psychology, The Children We Teach and Learning and Teaching; Plato's Republic; Life and Teachings of Guru Govind Singh. Address: Centre for Advanced Study of Philosophy, Univ. of Madras, Madras 5.

RAMANUJAM, G., Secy., INTUC and Pres., Tamilnad Prov. Nat. Trade Union Congress; member, National Labour Commission. b. Feb. 2, 1916; Educ.: Srirangam, Trichinopoly Dist. Founder Secy., Tamil Nad I.N.T.U.C., 1947-58; Pres., I.N.T.U.C., 1958 and 1959; Pres., Indian Nat. Plantation Workers' Federation, 1960; member of: 1st and 2nd Central Wage Board for the Cotton Textile and Tea Plantation Industries; Central Adv. Council for Industries; Board of Trade; Workers' rep. at the 42nd Session of the I.L.O., 1958 and other conferences; visited: China, 1954; Japan, 1959; Director: Industrial Fin. Corpn. of India; Hindustan Machine Tools, Bangalore; Neyveli Lignite Corpn.; Hindustan Shipyard, Vizag, etc. Publications: Industrial Relations - A Point of View (1965); Payment of Bonus Act (1966); From the Babul Tree - Story of Indian Labour (1967). Address: 2/44, Royapettah High Road, Madras 14.

RAMA RAU, Smt. Dhanvanthi, M.A. (Hons.) (Madras), Padma Bhushan (1959), Kaiser-I-Hind Gold Medal, 1938, Lasker award of America, 1955; Wattumal Award, 1967; Peace Award of the Family of Man, 1968; Social Worker; Ex-Pres., Family Plng. Assocn. of India. b. May 10, 1893; Educ.: Hubli; Presidency Coll., Madras. Lecturer, Queen Mary's Coll., Madras, 1917–19; interested in women's sufferage and social reform. Pres., All India Women's Cfee., 1946–47; member: Family Plng. Board, Govt. of India; ex-member, Central Social Welfare Board; Exec. Chairman, Cttee. of the Intn'l. Planned Parenthood Federation. and its Pres., 1963–69; Address: D-10, Mafatlal Park, Bombay 26.

RAMASAMY, Subramaniyan, B.Sc., B.L., Minister for Home, Pondicherry, since April 1969. b. June 5, 1939; Educ.: St. Mary's High School, Karikal; Annamalai Univ., Chidambaram; Law Coll. Madras. Seey., Student D.M.K., Annamalai Univ., and Law Coll., Madras; participated in the Anti-price-Rise demonstration of Tanjore, 1966; contested in 1964 election to Pondicherry Assembly from Neravy; elected M.L.A., March 1969. Address 8, Veerasamy Naicker St., Karikal (Pondicherry).

RAMASWAMY, K. S., B.A., B.L., Deputy Minister of Home Affairs, Govt. of India, since March 18, 1967. b. Jan. 1922; Educ.: Loyola Coll., Madras; National Coll., Tiruchirappalli; Law Coll., Madras. Was Member: Second Lok Sabha, 1957-62; Estimates Cttee., 1961-62; Delhi Zoological Park Council and Indian Central Sugarcane Cttee., 1960-62; Secretary, Cong. Party in Parliament, 1966-67; elected to Rajya Sabha from Madras, since 1962; keen agriculturist and promoter of small industries; went on study tours to Russia, U.K. and the Continent. Address: Kugalur, Gopichettipalayam Taluk, Via Erode, Tamil Nadu; Ministry of Home Affairs, Govt. of India, New Delhi.

RAMDAS, Dr. Lakshminarayanapuram Ananthakrishna, M.A., Ph.D., M.B.E. (1946), "Padma Shri" (1958), F.N.I., F.N.A.Sc., F.A.Sc., F.W.A., F.R. Met., F.I.G.U., Scientist. b. June 3, 1900; Educ.: Sircar High School, Trichur; Maharajah's Coll., Ernakulam; Presidency Coll., Madras; Univ. Coll. of Sc., Calcutta; Indian Assoc. for the Cultivation of Sc., Calcutta. Palit Research Scholar under Sir C. V. Raman, 1923–26; discovered phenomenon of "Scattering of Light by pure liquid

and solid surfaces", 1923; recorded "Raman Effect" for the first time in a Vapour (Ether), 1928; Ind. Met. Service, 1926-56; Dy. D. G. of Observatories, 1953; Offg. Dir. Gen., 1955; Pres., Physics Sect., India Sc. Congress, 1948; led Indian Delegation to 9th Cong. of IUGG (Brussels), 1951; participated in UNESCO's various Arid Zone Research Cttee. Sessions, 1954-64; visited U.S.A., as a visiting foreign scientist, 1960; attended Intn'l. Radiation Symposium, Leningrad, 1964 and Bergen, Norway, 1968; Fellow, World Academy of Art and Sc. (FWA), 1963. Publications: Numerous original papers in Physics, Meteorology, Atmospheric Physics, etc. in various Indian and foreign Scientific Journals. Address: Emeritus Scientist, National Physical Laboratory, New Delhi 12.

RAMPURIA, Ratanlal, Industrialist. b. June 20, 1926. Is a partner of Messrs. Hazarimul Heeralal, Calcutta; Dir. of many industrial concerns; Chairman: Board of Dirs., The Bank of Bikaner Ltd., 1950 & 1958; Hoare Miller & Co., Ltd.; Dir.: West Bengal Fin. Corpn.; Rampuria Bros. (Private) Ltd.; Nat. Ins. Co., Ltd., etc.; created charity trust and apptd. trustee of various charity trusts; Chairman, Refugee Relief Cttee., Bikaner, 1949; patton, life member and member of various indus., commercial and educ. assoc.s, chambers and societies of India; Pres.: Jain Sabha, 1959-60 & 1960-61; Bengal Millowners' Assoc., 1961. Address: 25/2, Rowland Road, Calcutta.

RANDERI, J. D., Second Mate's Certificate, General Secretary, Maritime Union of India. b. Oct. 2, 1911; Educ.: Training Ship, "DUFFERIN". Has been in maritime labour movement for nearly 25 years. Address: Laxmi Nivas, Khar Road, Khar, Bombay 52.

RANGA, Prof. N. G., M.P., Pres., Swatantra Party; Leader, Swatantra Group, Lok Sabha, since 1959; Principal, Indian Peasants Instt., Nidubrolu. b. Nov. 7, 1900; Educ. Oxford. Member, Congress Working Cttee., 1947–51; Ex-Pres., A.P.C.C.; Founder, Indian Peasant Movement; toured extensively in Europe and America spreading Gandhian philosophy and ideals; resigned from Congress, April, 1951; formed the Bharat Krishikar Lok Party, 1951; rejoined Congress, 1955; elected Gen. Seey., Congress Parly. Party; resigned on Co.-op. Farming issue, 1959; became leader, Swatantra Party, June 1959; elected M.P. from Srikakulam, 1967. Publications: 20 books including Colonial and Coloured Peoples, Outlines of National Revolution, Peasants and Communists, Towards World Peace, Credo of World Peasantry, Peasant and Coperative Farming, Panchayat Landlordism Vs. Peasant Economy, Autobiography—Fight for Freedom, etc. Address: Nidubrolu (Post).

RANGACHARYA, Adya, B.A. (Bombay), M.A. (Lond.), Sangeet Natak Akademi Award (1963), Playwright. b. Sept. 26, 1904; Educ.: Decean Coll., Poona; School of Oriental Studies, London. Sanskrit Lecturer, Bombay Ednl. Service, 1930–48; Drama Producer, A.I.R., Bangalore, 1956–59; Founder and first Pres., Natya Sangha Theatre Centre, Mysore State; Pres., Kannada Sahitya Sammelan, etc. Publications: 35 plays, 50 one-acts, on Gita, laughter and theory of humour (Kannada); books on the origin of Sanskrit drama and Bharat Natya Shastra (English); novels and humorous essays, criticisms, reviews, etc.; member, Gen. Council & Exec. Cttee., Central Sangeet Natak Akademi; its elected fellow (1968); Pen-name SHRI-RANGA'. Address: 28, 6th Main Road, Malleswaram, Bangalore 3.

RANGANATHAN, Saurirajan, M.A. (Madras), I.C.S. (Retd.), Comptroller and Auditor-General of India, since Aug. 15, 1966. b. Nov. 12, 1908; Educ.: P. S. High

School, and Presidency Coll., Madras; M.A., 1929-I.C.S., (1932); U.P. Cadre; was permanently deputed to the Govt. of India; was Secy., Min. of Industry, Govt. of India. *Address*: New Delhi.

RANGANATHAN, Shiyali Ramamrita, M.A., D.Litt., Delhi & Pittsburgh, L.T., F.L.A., Padma Shri, Margaret Mann Award (1970), Educationist. b. 1892; Educ.: Madras Christian Coll.; Univ. Coll., London. Mathematics Lecturer, Govt. Coll., Madras, 1917-24; Univ. Lib. and Prof. of Lib. Sc., Madras, 1924-44; Banaras, 1945-47; Prof. of Lib. Sc., Delhi Univ., 1947-55; Chairman: Doc. Comm. and Lib. Buildings Comm., Ind. Stand. Inst., 1947-67; U.G.C. Lib. Comm., 1958 and Courses Comm. in Lib. Sc., U.G.C., 1962; is Natl. Res. Prof. in Lib. Sc., 1965—and Hon. Prof., D.R.T.C., Bangalore, since 1962. Publications: Preface to Lib. Science; Rural Adult Education; Lib. Devpt. Plan for India; Rules for the Rendering of South Asian Names (Prepared for UNESCO); Lib. Adm.; Social Science Research and Libraries; Documentation and its Facets; etc. Address: Documentation Research and Training Centre, 112, Cross Road 11, Bangalore 3.

RANGNEKAR, Dr. Dinanath Kashinath, Ph.D. (Lond.) (Tata Research Award), Editor, The Economic Times, Bombay, since 1967. b. July 15, 1926; Educ.: Bombay; London School of Economics & Political Science. Lectured in India and abroad until 1958; Visiting Professor, Melbourne Univ., 1958-60; participated in U.N. Confce. on Financing Development in backward countries, 1956; organised and initiated Australia's first course on Asian Studies; Special Correspondent, Financial Times, London; Asstt. Editor and Political and Economic Columnist in Ceylon Daily News; Editorial Adviser & Chief of Research Unit of the Asstd. Newspapers, Ceylon; Chief of Economic Times New Delhi Bureau, 1961-67; member: Tariff Commission Enquiry Cttee., New Delhi; Khadi & Village Industries Review Cttee.; Jute Production Cttee.; Direct Taxes Enquiry Cttee., 1970. Publications: Poverty and Capital Development (Chatham House, Oxford); Agricultural Finance in India; India, Britain & the E.C.M. Address, Office: The Times of India Bldg., Bombay 1; Residence: 63, Tenerife, Little Gibbs Road, Malabar Hill, Bombay 6.

RAO, Ayyagari Sambasiva, M.Sc. (Physics), Degree of Engg. (Stanford Univ.), Hon. D.Sc. (Andhra Univ. 1969), Padma Shri (1960), Shanti Swarup Bhatnagar Memorial Award in Engg. Sciences (1965), Director, Electronics Group and Directorate of Radiation Protection, Bhabha Atomic Research Centre; Mg. Director, Electronics Corpn. of India Ltd. b. Sept. 20, 1914; Educ.: Banaras Hindu Univ., Stanford Univ., California, U.S.A. Did research for five years on intensity measurements of cosmic rays at high altitudes at the Tata Institute of Fundamental Research, Bombay; supervised and controlled the designing, construction and commissioning of the control systems of the swo reactors built at Trombay — Apsara and Zerliana; Chairman, Working Group on Electronics; member: Board of Tarapur, Rajasthan and Kalpakkam Atomic Power Projects; Electronic Cttee., Govt. of India; member on the editorial and advisory boards for scientific and technical journals. *Publications*: Has published 12 papers. *Address*: Director, Electronics Group, Bhabha Atomic Research Centre, Chhatrapati Shivaji Maharaj Marg, Bombay 1.

RAO, Balantrapu Rajanikanta, B.A. (Hons.), Sahitya Akademi Award for Telugu (1961–62), Playwright, Poet, Musician and Musicologist, Asstt. Stn. Dir., Transcription and Programme Exchange Service, A.I.R., New

Delhi, since June 1968. b. Jan. 29, 1920; Educ.: Andhra Univ. Coll., Waltair. Staff-artist and Playwright, A.I.R., Madras, 1942–44; Programme Asstt., A.I.R., Madras, 1944–56; Programme Exec., A.I.R.: Vijayawada, 1956–60; Hyderabad, 1960–66; Asst. Stn. Dir. A.I.R., Kurseong, 1966–68. Publications: Sata Patra Sundari (Lyrics) (Telugu Bhasha Samiti Award, 1952–53); Andhra Vaggeyakara Charitram (Central Sahitya Akademi Award in 1961–62); Jejimamayya Patalu (Songs for Children), 1962; Viswavina (Collection of 18 operas), 1964. Address: Transcription and Programme Exchange, A.I.R., P.B. No. 640, New Delhi.

RAO, Dr. Calyampudi Radhakrishna, M.A., Ph.D. and Sc.D. (Cantab.), D.Sc. (Hon. Causa, Andhra & Leningrad), F.R.S., Bhatnagar Award, 1963, Padma Bhushan, 1968, Meghnad Saha Gold Medal, 1969, Scientist. b. 1920. Hon. Fellow & Guy Medallist, Royal Statistical Society; Member, International Statistical Institute; Council, Biometric Society, 1952-61, 1966-68; Fellow, Institute of Mathematical Statistics, U.S.A., & National Institute of Sciences, India; Treasurer, International Statistical Institute 1962-65; Co-editor, Sankhya; Director, Research & Training School, Indian Statistical Institute; lecture and scientific tours in many countries; also delegate to international conferences; visiting professorships abroad. Publications: Advanced Statistical Method in Biometric Research; Linear Statistical Inference and its Applications, and more than 100 scientific papers. Address: 205, Barrackpore Trunk Road, Calcutta-35.

RAO, Chandra Rajeswax, Gen. Secretary, Communist Party of India. b. June 6, 1914, at Mangalapuram, Kistna Dt.; Educ.: Hindu High School, Masulipatam; Banaras Hindu Univ.; Vizagapatam Medical Coll. Joined the Communist Party at Banaras, 1931; worked in Andhra in youth and peasant movements from 1936; member, Central Cttee., CPI from 1948; General Secy., CPI 1950–51, Dec. 1964 (7th Congress of CPI) and Feb. 1968 (8th Congress of the CPI). Address: 4/7 Asaf Ali Road, New Delhi-1.

RAO, Devulapalli Ramanuja, B.A. (Madras), LL.B. (Nagpur), Author. b. Aug. 24, 1917; Educ.: Nizam Coll., Madras; Law Coll., Nagpur. Literature, Educ., Journalism and Politics; member: Osmania Univ. Senate (1954-56); Central Text Book Cttee. (1952-56); Seey., Andhra Pradesh Sahitya Akademi, Hyderabad; Member, Rajya Sabha, 1960-62; Seey., State Cttee. for Tagore Centenary Celebrations (1960); member: Exec. Cttee. Central Sahitya Akademi, New Delhi; Osmania Univ. Syndicate; AIR Adv. Cttee.; Modern Languages Dev. Cttee.; Adv. Cttee. for State Archives (A.P.); High Power Cttee. for Nationalised Text Books (A.P.); Cttee. for Devpt. of Indian Languages, Govt. of India. Publications: Navya Kavitha Neerajanamu; Vyasa Manjoosha; Mana Desamu; Adima Nivasulu; Visalandhra Vachindi; Navanthamu; Pacha Thoranamu, etc. Address: Andhra Saraswath Parishama, Tilak Road, Hyderabad 1.

RAO, J. V. Narsing, M.A. (Pol. Sc.), LL.B., Dy. Chief Minister in charge of Planning, and Public Works Deptts., since Aug. <sup>6</sup>9 & Min. for Public Works, Andhra Pradesh, since, March 1967. b. Oct. 14, 1914; Educ.: Osmania Univ., Muslim Univ., Aligarh and Banaras Hindu Univs. Was Advocate, Supreme Court; is associated with many educational and social institutions in Hyderabad; was member, Syndicate, Osmania Univ. for more than six years; gave up practice at the Bar during Razekar regime; member, A.I.C.C., since 1952; Pres., Hyderabad P.C.C., 1955-57; Minister for Irrigation and

Power and Public Works, Andhra Pradesh, 1956-60; is intimately connected with I.N.T.U.C.; Chairman, A. P. State Electricity Board, 1963-66; elected M.L.A., A.P. from Lakshettipet Constituency, 1967. Address: "Dwarka", Gaganmahal Colony, Hyderabad-29 (A.P.).

RAO, Jagannath, B.A., B.L., Minister of State for Law and Dept. of Social Welfare, Govt. of India, since June 1970. Educ.: Ganjam Dist.; Patna Univ. Enrolled as an Advocate, Madras High Court; practised law at Jeypore (Koraput); Advocate, Supreme Court of India, 1957; M.P., Lok Sabha, since 1957; was on the Panel of Chairmen for the Lok Sabha; member: Exec. of the Congress Party in Parliament, 1958-62; A.I.C.C., since 1963; led the Indian delegation to the International Congress on Penal Law at The Hague, Aug. 1964; Deputy Minister, Min. of Works, Housing and Supply, May 1962 and later in the Min. of Economic and Defence Co-ordination; Dy. Min., Min. of Law and Deptt. of Social Security, 1964; was Min. of State for: Labour, Employment and Rehab.; Parliamentary Affairs and Communications, and Govt. Chief Whip. 1966-67; Works, Housing & Supply, 1967-69; Petroleum & Chemicals and Mines & Metals, Govt. of India, 1969-70. Address: New Delhi.

RAO, Dr. Kannru Lakshman, B.E., M.Sc., Ph.D. (Birm.), F.I.C.E. (Lond.), M.I. Struct. E. (Lond.), M.I.E. (India). Padma Bhushan (1963), Min. of State for Irrigation and Power, Govt. of India, since July 1963. b. July 15, 1902; Educ.: Madras and Birmingham. Chief Engr., Floods, Central Govt.; Pres., National Cttee. of the Intn'l Cttee. on Soil Mechanics and Foundation Engg.; awarded the President's Gold Medal thrice for the best contributions to the Journal of Instt. of Engrs. (India) and Hon. D.Sc. degree by Andhra Univ.; Vice-Pres., Intn'l Cfee. on Soil Mechanics and Foundation Engg.; Pres., Instt. of Engrs. for 1959-60 and 1960-61; Pres., Central Board of Irrigation & Power; M.P., Lok Sabha, 1962 & 1967. Publications: Calculations, Designs & Testing of Reinforced Concrete. Address: 9, Janpath, New Delhi.

RAO, Dr. Vijayendra Kasturi Ranga Varadaraja, M.A. (Bombay), B.A., Ph.D. (Cambridge), D.Litt. (Delhi), Minister for Education and Youth Services, Govt. of India, since Feb. 14, 1969. b. July 8, 1908; Educ. : Wilson Coll., Bombay; Gonville and Caius Coll., Cambridge. Dir. of Statistics and subsequently Plng. Adv., Food Dept., Govt. of India (1944-46); Chairman, U.N. Sub-Commn. on Eco. Devpt. (1947–50); Corresponding Member, Instt. de Science Economique Applique, Paris, since 1948; member, Univ. Prof. and Founder Dir., Delhi School of Economics, Univ. of Delhi, 1942-57; Vice-Chancellor, Delhi Univ., 1957-60; Founder Dir., Institute of Economic Growth, 1960-63; Member, Planning Commission, 1963-66; Min. for Transport & Shipping, 1967-69. Publications: Taxation of Income in India; An Essay on India's National Income, 1925-29; The National Income of British India, 1931-32; War and Indian Economy; Post-war Rupee; Essays in Economic Development; Education and Human Resource Development. Address: New Delhi.

RATANJANKAR, Dr. Shrikrishna Narayan, B.A., Doctor of Music, Padma Bhushan (1957), Fellow, Sangeet Natak Akadami, Music Composer. b. Dec. 31, 1899; Educ.: Bombay and Baroda; made a spl. study and practice of Hindustani vocal classical music. Principal, Bhatkhande Coll. of Hindustani Music, Lucknow, 1928-56; & 1967-70; Vice-Chancellor, Indira Kala Sangeeth Vishewavidyalaya, Khairagarh, 1957-60; has been examiner in

music för B.A., M.A. and Ph.D., Univs. of Madras, Delhi, Nagpur, Agra, Saugar etc. Publications: Sangeet Shiksha; Abhinava Geeta Manjari; Tana Sangraha; Hindustani Sangeet Ki Swaralipi; Varna Mala. Address: 10A, Hill View, Raghavji Road, Gowalia Tank Road, Bombay 26.

RAU, M. Chalapathi, M.A., B.L., Editor, National Herald, Lucknow, since 1946. Educ.: Presidency Coll. and Law Coll., Madras. Advocate, Madras High Court, 1934; entered journalism, 1936; Asstt. Editor: National Herald, 1938-42; Hindustan Times, 1943-45; member, UNESCO Press Experts Commn., Paris, 1950; Co-Founder, Intr'l. Press Instt., New York, 1950; Pres.: All India Convention of Working Journalists, New Delhi, 1950; Federation of Working Journalists 1950-55; member: Press Commn., 1952-54; UNESCO Experts' Cfce. on Journalism Educ., Paris, 1956; Rep., U.N. General Assembly, 1958; Delegate, UNESCO Gen. Cfce., Paris, 1960; Member, Exec. Trustee, Nehru Memorial Fund. Publications: Co-Editor, Gandhiji, Seventy-fifth Birthday volume, 1944; Fragments of a Revolution, 1965; Gandhi and Nehru (1967); The Press in India, 1968. Address: National Herald, Herald House, New Delhi.

RAUT ROY, Satchidananda, Padma Shri (1962), Poet and Writer. Editor, Diganta (bi-monthly); Mg. Dir., Orissa Board Mills, Ltd., Cuttack. b. 1915, in Orissa; Educ.: Graduated, 1939. First to introduce modern verse-forms in Oriya literature; participated in the Harvard Intn.'l Seminar of Arts and Sc., 1955; Indian repart Social Services Seminars held in Australia & New Zealand, 1952; visited South-East Asia, U.K., France, Italy, Switzerland, 1952; member, Delegation of Indian Writers & Journalists, U.S.A., 1962; National Sahitya Akademi Award in 1963 for Kavita—1962; Soviet Land Nehru Award, 1965. Publications: Swagata; Pandulipi; Avijayan; Avijan; Palli-Shri; Kavita—1962. Short Sey and Forty Poems; Reference: Sochi Raut Roy— A Poet of the People written by 22 eminent persons of India. Address: Meria Bazar, Cuttack 1.

RAVAL, Anantrai Manishankar, M.A., Ranjitram Gold Medal, 1955. Gujarati Writer; Dir. of Languages, Gujarat State, since 1964; Member, Gujarat Adv. Cttee., Sahitya Akademi, Delhi; Vice-President, Gujarat Sahitya Sabha. b. Jan. 1, 1912; Educ.: High School, Amreli; Samaldas Coll., Bhavnagar. Prof. of Gujarati, Gujarat Coll., Ahmedabad, 1934-59; Principal, D. K. V. Coll., Jamnagar, 1959-60; Research Officer, Directorate of Languages, Gujarat State, 1960-64. Publications: Gandhakshat; Sahitya-Vivek; Sahitya-Nikash; Samalochana; Granthasth Vangmaya; Gujarati Sahitya Part I, etc.; edited Nalakhyana, Madanmohana, Kalapi-no-Kavyakalap; Bètadkar-ni Kavyasarita, Nanalal-Madhukosh, etc. Address: 2, Sri Sadma Society, Navrangpura, Ahmedabad 9.

RAY, Dr. Nihar Ranjan, M.A., P.R.S. (Cal.), D.Litt. & Phil. (Leiden), Dip. Lib. (London), F.A.S. (Cal.), F.L.A. (Gr. Br.), F.R.A.S., F.R.S.A. (Lond.), F.I.A.A.L. (Zurich), Padma Bhushan (1970), Director, Indian Institute of Advanced Study, Simla, since June 1, 1965. Dean of the Faculty of Arts and Vice-Pres., Post Graduate Coll. of Arts, Calcutta Univ., since 1959. b. Jan. 14, 1904; Educ.: Mymensingh; Sylhet; Calcutta; Univ. Coll., London; Univ. of Leiden. Member: Central Adv. Boards of Educ., Archaeology and Anthropology; Sangit Natak, Lalit Kala and Sahitya Akademies, since 1960; was Bagisvari Prof. of Indian Art and Culture, Head of the Deptt. of Ancient Indian His. and Culture. Publications: Brahmanical Gods in Burma; Sanskrit Buddhism in Burma; Art

in Burma; An Artist in Life; Indian Painting; Indian Sculpture; etc. Address: 68-4A, Purna Das Road, Calcutta-29; Indian Institute of Advanced Study, Rashtrapati Nivas, Simla 5.

RAY, Smt. Renuka, B.Sc. (Econ.) (London), Ex-Pres., All India Women's Conference; member, A.I.C.C. b. Jan. 1904; Educ.: Loreto House School and Diocesan Coll., Calcutta; London School of Economics, London Univ. Member and Social Secy., A.I.W.C., since 1961; member: Central Leg. Assembly, 1943-46; Governing Body of Visva-Bharati Univ., Santiniketan, 1941-48 and since May 1, 1958; Constituent Assembly and provisional Parliament, 1948-52; Indian Delegate, U.N. Gen. Assembly, 1949; Min. of Rehab., Govt. of West Bengal, 1952-57; Member, Estimates Cttee., Lok Sabha; 1957-59; Chairman, Cttee. on School Health (Min. of Health); M.P., Lok Sabha, from Malda Constituency, 1957-67; leader, Plan Projects Cttee. on Social Welfare; member, Central Family Plng. Council; Pres., Women's Co-ordinating Council, W. Bengal. Address: 24/1, Ballygunge Circular Road, Calcutta 19.

RAY, Satyajit, B.A., Padma Shri (1958), Padma Bhushan (1965), Magsaysay Award for Journalism and Literature (1967), Film Producer and Dir. b. May 2, 1922; Educ.: Presidency Coll., Calcutta; Kalabhavan, Santiniketan; Viswa-Bharati Univ., Santiniketan. Produced the film Pather Panchali, won the 1959 Selznick award and the gold laurel trophy for his films Pather Panchali and Aparajita; won the 1963 Selznick's Golden Laurel for the non-American best film showing intn'l understanding; his other films are Aparajita, Apur Sansar, Paras Pathar, Jalsaghar and Devi; awarded first prize for best film direction for his 'Charulata' by the Berlin Intn'l Film Festival, July 1965; special award of honour by the 16th International Film Festival in Berlin in recognition of his artistic eminence in the world of film, 1966. Address: 3, Lake Temple Road, Calcutta 27.

REDDI, Dr. Bezwada Gopala, D. Litt., Governor of U.P., since May 1967; Chairman, Children's Film Society. b. Aug. 1907; Educ.: Viswa Bharati, Santiniketan. President: Dakshina Bharat Hindi Prachar Sabha (A.P.); Telugu Bhasha Samiti, since 1947; A. P. Sahitya Academy, since 1957; All India Chess Federation since 1959; Hindi Assoc. of Parliament; Chairman, Cttee., Central Sahitya Akademi; Member, A.I.C.C., since 1931; elected M.L.A., Madras, 1937-46; Min. for Local Adm., Govt. of Madras, 1937-39; Pres., Andhra P.C.C., 1953; Pro-Chancellor, Andhra Univ., 1951-57; Chief Minister, A.P., 1956; Fin. Min., Madras, 1947; Home Min., A.P., 1956; Fin. Min., 1957; elected M.P., Rajya Sabha, 1958-60; Lok Sabha, 1962; Min. of: Rev. and Civil Expenditure, Govt. of India, 1958-61; I. & B., 1962-63; resigned under the 'Kamaraj Plan', Aug. 1963; Dy. Leader, Cong. Parly. Party, 1965-67. Publications: Chitranguda; has translated some books of Tagore into Telugu from original Bengali. Address: Raj Bhavan, Lucknow.

REDDI, Kasu Brahmananda, B.A., B.L., Chief Minister, Andhra Pradesh, since Feb. 29, 1964. b. July 28, 1909. Member: A.I.C.C.; Andhra Univ. Senate; imprisoned, 1941 and detained, 1942; Pres., Guntur Dist. Board, 1936; Member, Madras Assembly, 1946-52; Gen. Secy., A.P.C.C. from March 1955; Fin. and Plng. Min. in Sanjiva Reddy cabinet; Fin. Min., 1960-62; Min. for Fin. & Coop., A.P., March 1962-Feb. 1964; unanimously elected leader, A.P. Leg. Cong. Party, June 26, 1964. Address: Anand Nilayam, Begumpet, Hyderabad.

REDDI, Pidathala Ranga, Chairman, Andhra Pradesh Legislative Council, since July 15, 1968. b. Sept. 10, 1917; Educ.: Markapur, Kurnool Dt. Entered politics in his student days; Pres., Kurnool D.C.C., 1941; courted jail in the freedom movement; member, APCC and AICC since 1940; elected to the Provisional Parl. from Madras, 1950; elected M.L.A., Madras 1952; Chief Whip, Congress Party in composite Madras State, 1952; S; Pres., P.C.C., 1958; Min. for Planning and Inf., 1960-62; M.L.C., Andhra Pradesh, 1966. Address: No. 2, Ministers' Quarters, Begumpet, Hyderabad 16.

REDDY, H. G. V., B.Sc. (Hons.) (Mysore), I.A.S., Managing Director & Vice-Chairman, Mysore Iron & Steel Ltd., Bhadravati. b. Jan. 15, 1922; Educ.: Univ. of Mysore; London School of Economics, Univ. of London, Mysore Govt. Trade Commissioner in London, 1953-57; Joint Regl. Dir. of Food, Govt. of India, 1957-60; Dir., Mysore Spun Silk Mills Ltd., 1960; Vice-Chairman & Mg. Dir., Kolar Gold Mining Undertaking, 1960-61; Secy. to the Governor of Mysore, 1961; Project Admr., Surgical Instruments Plant, Madras, 1961-68; Chairman, Mysore Asbestos Ltd., since 1968; Chairman and Mg. Dir., Mysore Paper Mills Ltd., Bangalore, since May 22, 1969; travelled extensively all over the world. Address: Bhadravati (Mysore State).

REDDY, Kyasambally Chengalarya, B.A., B.L., LL.D. Honoris Causa, Governor, Madhya Pradesh, since Feb. 11, 1965. b. May 4, 1902; Educ.: Mysore and Madras. Pres.: Mysore Cong., 1937-38 and 1946-47; launched freedom struggle in Mysore; Leader of the Assembly thrice since 1947; Chief Min., 1947-52; member, Indian Constituent Assembly, 1947-50; M.P., Rajya Sabha, 1952-57; Lok Sabha, 1957-64; member: Exec. Cttee., All-India States Peoples' Cfoe., 1944-45; Working Cttee., Mysore Cong., 1937-52; Union Min. for: Production 1952-57; Works, Housing & Supply, 1957-61; Commerce and Indus., 1961-63; Dy. Leader, Cong. Party in Parliament, 1963-64; visited U.S.A., U.K., Continent & U.S.S.R. Address: Kyasambally Village, P.O. K.G.F., Mysore State; Raj Bhavan, Bhopal.

REDDY, K. V. Raghunatha, M.A., LL.B., Minister of State, Department of Company Affairs, Govt. of India, since June 1970. b. Sept. 4, 1924, at Virur, Nellore Dist.; Educ.: Annamalai Univ., Lucknow Univ. Member, Senate, Annamalai Univ., 1947-59; enrolled as Advocate, Madras High Court, 1950 and Supreme Court, 1958; elected member, Rajya Sabha, 1962; represented Rajya Sabha at the Commonwealth Confee., 1966; Min. of State in the Min. of Ind. Devpt. and Company Affairs, 1967-70; delivered extension lectures in Humbold Univ., E. Germany and at the Institute of Economics and Politics, Prague on "Paths to Socialism and Economic Development" and "Nehru's Contribution to Socialist Thought". Publications: Criminal Law-Procedural and Substantial. Address: Department of Cympany Affairs, Goyt. of India, New Delhi.

REDDY, Neelam Sanjiva, Member of Parliament (Lok Sabha). b. May 19, 1913; Educ.: Adyar; Arts Coll., Anantapur. Secy., Andhra P.C.C., 1936-46; courted jail for participation in Satyagraha movement; Congress M.L.A., Madras, 1946; was Secy., Madras Cong. Leg.; member, Indian Constituent Assembly, 1947; Min. for Prohibition, Housing and Forests, Madras, 1949-51; resigned and elected Pres., Andhra P.C.C.; was Exec. Cttee. member and Parly. Board member of A.I.C.C. till the Avadi Cong. Session; M.P., Rajya Sabha, 1952-53; M.L.A., Andhra, 1953 and 1955; Dy. Chief Min. of

Andhra State, 1953 & 1955-56; Leader, A.P. Cong. Leg. Party, Oct. 21, 1956; Chief Min., A.P., 1956-60 & 1962-63; Pres., Indian Nat. Cong., 1960-62; Union Min. for Steel and Mines, 1964-66; member, Central Election Cttee., A.I.C.C., since May 1966; Min. for Transport, Aviation, Shipping and Tourism, Govt. of India, 1966-67; Speaker, Lok Sabha, 1967-69. Address: New Delhi.

REDDY, Mr. Justice Pingle Jaganmohan, B.Com. (Leeds), B.A. (Law Tripos), LL.B. (Cantab.), Barrister-at-Law, Judge, Supreme Court of India since Aug. '69. b. Jan. 23, 1910; Educ.: Hyderabad; Leeds; Law Tripos, Cantab. Practised in the High Courts of Bombay, Madras and Hyderabad, 1937-46; Expert Member, Leg. Council for Income-tax and Company Law; Addl. Judge, Dist. and Sessions Judge, & then Puisne Judge, High Court, Hyderabad, 1948-56; Member, Syndicate & Dean, Faculty of Law, Osmania Univ., 1952-59; Offg. Vice-Chancellor, Osmania Univ. 1959; Judge, High Court of Andhra Pradesh, 1956-66; Chief Justice, 1966-69; Member of Jury, Jawaharlal Nehru Award for International Understanding, 1966-69. Publications: The Hyderabad Excess Profits Tax Act: Quest of Justice. Address: 'Lumbini Gardens', Saifabad, Hyderabad 22; New Delhi.

REDDY, Ravi Narayan, Communist Leader. b. June 4, 1908; Educ.: Nizam Coll., Hyderabad. Joined C. D. movement, 1930; one of the founders of the State Congress; joined Andhra Mahasabha, 1933; elected Pres. and presided over three open annual sessions, 1941, 1944, 1945; joined C.P.I., 1939; jailed twice once as a Congressman, 1938 and as a Communist, 1951; was underground for five years; elected to: Lok Sabha in 1952; State Leg., 1957; was Dy. Leader of the Opposition and Chairman, P. A. C., Andhra Pradesh Leg. Assembly; elected M.P., from Nalgonda, 1962-67. Address: Post Bollepally, T. K. Bhongir (S.C.R.), A.P.

REGE, Purushottama Shivarama, B.A. (Bombay), B.Sc. (Econ.) (Lond.), Marathi poet and writer; Principal, Smt. Parvatibai Chowgule Coll., Margao, Goa, since 1969. b. Aug. 2, 1910; Educ.: Bombay and London, was Principal and Prof. of Economics, Elphinstone Coll., Bombay. Publications: Books on Scientific Methods and Civics; Poems, Short Stories, Dramas and Novels. Address: Margao, Goa.

REIGHLEY, Fenton James, Bachelor of Science & Business Administration, Managing Director, Firestone-India. b. May 23, 1910; Educ.: Ohio State Univ. With U.S. Govt., 1934-35; with A.P. Parts Corpn., Toledo, Ohio, 1936-40; with Firestone, since 1941. Address: Office: Hay Bunder Road, Sewree, Bombay 33 DD; Residence: Marble Arch, Pedder Road, Bombay 26.

REZA, H. E. Mr. Amirteimur Mohammad, Ambassador of Iran to India. b. 1916; Educ.: Univ. of Tehran. Joined Min. of Foreign Affairs, Iran, 1945; Secy., Iranian; Embassy, London, 1947-52; Special Secy. to the Min. of Foreign Affairs, 1952-54; First Secy., Iranian Embassy, London, 1954-58; Director, Passport Deptt., Min. of Foreign Affairs, 1958-59; Counsellor, Iranian Embassy, Beirut, 1959-61; Consul-General in Quetta (Pakistan), 1961-63; Dir., Deptt. of West Asia Division Foreign Office, 1963-65; Director-General for Political Affairs, Min. of Foreign Affairs, 1965; promoted Dy. Min. for Political Affairs, Min. of Foreign Affairs, Address: 5, Barakhamba Road, New Delhi 1.

ROY, Smt. Sudha, B.A. (Calcutta), Teacher, Social Worker & Trade Unionist; Chairman, W. Bengal Social Welfare Adv. Board; Gen. Secy., United Trades Union Congress. b. Feb. 16, 1913; Educ.: Dacca; Ashutosh Coll., Calcutta. Connected with trade union movement and women's movement from 1933; rep. to the 3rd Congress of the W.F.T.U. at Vienna; rep. of the Mahila Sanskritik Sammelan to the 3rd Cong. of the Women's Intn'l Democratic Federation, Copenhagen, 1953; visited U.S.S.R., Czechoslovakia & Hungary; N.F.I.W. rep. to 5th World Congress of Women in Moscow, 1963; Pres., Dock Mazdoor Union, Calcutta; Vice-Pres., National Federation of Indian Women; Gen. Secy.: Loka Shiksha Parishad; Mahila Sanskritik Sammelan; Exec. Cttee. member, Water Front Workers Educ.l Assoc. & Save the Children's Cttee. India. Address: 153-A, Motilal Nehru Road, Calcutta 29.

RUIA, Madanmohan Ramnarain, B.A., Merchant, Banker and Millowner. b. Aug. 24, 1914; Educ.: Marwari Vidyalaya and St. Xavier's Coll., Bombay. Dir.: Ramnarain Sons Pvt. Ltd., Bajaj Auto Ltd., Baroda Rayon Corpn. Ltd., Ramnarain Sons (Pakistan) Ltd., The Great Eastern Shipping Co. Ltd., Century Spg. & Mfg. Co. Ltd., Mukund Iron & Steel Works Ltd., M. Ramnarain Pvt. Ltd., Bradbury Mills Ltd., Bombay Oxygen Corpn. Ltd., etc.; Pres.: F.I.C.C.I., 1959-60; East India Cotton Assoc. Ltd., Cotton Buyers' Assoc.; Trustee, Bombay Port Trust; member: Cotton Imports Adv. Cttee., Bombay, Customs Adv. Cttee.; Leader: Indian Delegation to Afro-Asian Eco. Cfce., 1958; Intr'l. Businessmen's Cfce., Karachi, 1960, etc. Address: Eucharistic Congress Bldg., 5, Convent St., Bombay 1.

RUIA, Radhakrishna Ramnarain, B.A., Merchant and Millowner; Chairman: Indian Cotton Mills' Federation; The Phoenix Mills Ltd. b. Jan. 14, 1916; Educ.: Marwari Vidyalaya and St. Xavier's Coll., Bombay. Dir.: Ramnarain Sons Pvt. Ltd.; Dawn Mills Co. Ltd.; Malabar Steamship Co. Ltd.; Radhakrishna Ramnarain Pvt. Ltd.; Kolhapur Sugar Mills Ltd., Kolhapur; Ramnarain Sons (Pakistan) Ltd., Karachi; Morarjee Gokuldas Spg. & Wvg. Co. Ltd.; West India Chemicals Ltd., & others; Cttee. Member, Millowners' Assoc.; Dy. Chairman: Governing Council of Bombay Textile Research Assocn.; Chairman: Bombay Regional Cttee. on Maintenance of Machinery; Millowners' Assoc., Bombay, 1963, 1967-69; Indian Cotton Mills Federation, 1969 & 1970. Address: State Bank Bldg., Bank Street, Fort, Bombay I.

RUIA, Ramniwas Ramnarain, Merchant, Banker and Millowner; Senior Dir., Ramnarain Sons Private Ltd., Bombay. Educ.: Marwari Vidyalaya, Bombay and privately. Entered business at an early age: Dir.: Ramnarain Sons Pvt. Ltd., Finlay Mills Ltd., Bank of India Ltd., Andhra Valley Power Supply Co. Ltd., New India Assurance Co. Ltd., Modern Family Plng. Products Ltd., Trafford Cotton Co. Ltd., England, Dawn Mills Co. Ltd., Kolhapur Sugar Mills Ltd., National Machinery Mfrs. Ltd., Bradbury Mills Ltd., Intn'l Computers (I) Pvt. Ltd., Swan Mills Ltd., BASF (I) Ltd., Synthetics & Chemicals Ltd., etc.; Member, Dempo Steamships Ltd. Address: State Bank Building, Bank Street, Fort, Bombay 1.

RUKMINI Devi Arundale, Padma Bhushan, Doctorate in Humanities (Wayne State Univ., Detroit); President's award for Bharata Natya; Queen Victoria Silver Medal of the RSPCA, London; Fellowship of Sangit Natak Akademi; Prani Mitra Award; President: Kalakshetra (International Art Centre); Indian Vegetarian Congress; Y.M.I.A.; Besant Centenary Educational Trust; Chairman, Animal Welfare Board; Director of International Society for Protection of Animals, London; "Adyaksha, Dr. U. V. Swaminatha Aiyar Library; Nominated member of Rajya Sabha for two terms; Exponent

of Bharata Natya; Specialised in classical music, dance dramas and plays; producer and composer of dance dramas and dramas including Kuttala Kuravanji, Kalidasa's Kumara Sambhavam, 5 parts of Valmiki Ramayana—namely Sita Swayamvaram, Rama Vana Gamanam, Paduka Pattabhishekam and Sabhari Moksham, Chooodamani Pradanam, Maha Pattabhishekam, Kannappar Kuravanji, Shyama, Andal, Kalidasa's Sakuntalam and other productions. Prominent Theosophist, Speaker & Writer. Address: Kalakshetra, Madras-41.

RUSTOMJI, Nari Kaikhosru, M.A., I.C.S., Ford Foundation Fellow, Chief Seey. to the Govt. of Assam, since 1966. b. May 16, 1919; Educ.: Bedford School and Christ's Coll., Cambridge (Classical Scholar & Choral Exhibitioner). Joined I.C.S. 1941; Adviser to Governor of Assam for Tribal Areas and the States of Manipur, Tripura and Cooch-Behar, 1948; Dewan (Prime Minister) of Sikkim; Speaker, Sikkim Council; Pres., Sikkim Exec. Council, 1954–59; Adviser to the Governor of Assam for N.E.F.A. and Nagaland, 1959; Adviser to Govt. of Bhutan 1963–66; Founder Member, Namgyal Institute of Tibetology, Gangtok, Sikkim. Publications: Enchanted Frontiers; editing of Nagaland in the 19th century by Dr. Verrier Elwin (Both in Press). Address: 'Lumpyngad', Bivar Road, Shillong.

SADIQ, Ghulam Mohammad, B.A., LL.B., Chief Minister, Jammu & Kashmir State, since Feb. 28, 1964. b. 1912; Educ.: C. M. S. High School, Srinagar: S. P. Coll., Srinagar; Islamia Coll., Lahore and Muslim Univ., Aligarh. Elected member, first State Leg. Assembly, 1934; courted arrest in agitation against Govt. in 1938; Chairman, National Cfce., 1939; elected Dy. Leader, National Cfce. Assembly party; acted as Head, State Adm., Jan.-Feb. 1948; Devpt. Min., 1948-51; elected Pres., J. & K. Const. Assembly, 1951; Health and Educ. Min., 1953-57; Founder Pres., Kashmir Cultural Congress; resigned from the Ministry & the Nat. Cfce. party, 1957; formed the Democratic Nat. Cfce.; was its Leader till its merger with the Nat. Cfce., 1961; Hon. Vice-Pres., Indian Soc. of Intn'l Law; member, National Defence Council, since July 1964; elected to J. & K. Assembly, 1967; elected Pres., J. & K. P.C.C., May 16, 1970. Address: Gagribal, Srinagar, Kashmir.

SAHAY, Bhagwan, B.Sc. (Allahabad), Padma Bhushan (1961), Governor of Jammu & Kashmir State, since May 15, 1967. b. Feb. 15, 1905; Educ.: Allahabad Univ.; School of Oriental Studies, London. Jt. Magistrate, U.P., 1929; Dy. Secy. to Govt., U.P., 1936-39; Supdt., Census Operations, 1939-41; Secy., Indian Council of Agr.l Research, 1941-43; Jt. Secy., Govt. of India, 1944-45; Commr., Food & Civil Supplies, 1946-49; Chief Secy., U.P. Govt., 1949-51; Chief Commr.: Himachal Pradesh, 1951-52; Bhopal 1952-54; Indian Amb. to Nepal 1954-59; Chief Commr., Delhi, 1959-63; Lt. Governor, Himachal Pradesh, 1963-65; Governor of Kerala, Feb. 1966

SAHNI, Balraj, M.A., Film Actor, Writer (Punjabi). b. May 1, 1913; Educ.: Lahore. Taught at Shantiniketan, 1937-39; announcer at B.B.C., London, 1940-44; since 1944 has been working in films at Bombay; outstanding films, Do Bigha Zamin, Seema, Kabuliwala, Haqeeqat, Waqt, etc. Publications: A book of Hindi short stories, travelogues on Pakistan and Soviet Union, Address: "Ikram," Juhu, Bombay 54.

SAIYIDAIN, Dr. Khwaja Ghulam, B.A., M.Ed. Doctor of Letters (Honoris Causa), Aligarh, 1962, Academy of Letters Award (1964), Padma Bhushan (1967); was

Educl. Adv. to the Govt. of India. b. Feb. 14, 1904; Educ.: Univ. of Aligarh and Leeds (England). Prof. of Educ., Aligarh Muslim Univ., 1926-38: Dir., of Educ., Kashmir Govt., 1938-45; Educl. Adv. to Rampur Govt., Bombay Govt., Govt. of India, Kashmir Govt., 1945-62; Pres., Intn'l New Educ., Fellowship, London, since 1956; Visiting Prof. and Sachs Memorial Lecturer at Columbia Univ.; Visiting Prof. of Educ.: Wisconsin Univ., 1963; Stanford Univ., 1964; member, Indian Educ. Commn., 1964-66 Dir., Asia Instt. of Educl. Plng. & Adm., 1966-68; Publications: (English and Urdu) Principles of Education; Igbal's Educational Philosophy; Education for International Understanding; Humanist Tradition in Indian Educational Thought. Universities and Life of the Mind; Patel Memorial Lectures on Gandhi; Faith of an Educationist, etc.; Andhi men Charagh (Lamp in the Storm), which won the Academy of Letters Award. Address: P.O. Jamia Nagar, New Delhi.

SAMSON, Rear Admiral Benjamin Abraham, Mg. Dir., Mazagon Dock Ltd., since June 1, 1966. b. Sept. 25, 1916; Educ.: Trg. Ship "Dufferin". Dufferin Cadet 1932-34; passed with distinction obtaining an extra 1st class certificate and winning the Viceroy's Gold Medal; served the Merchant Navy, 1939; was Indian Naval Adv. in the Royal Indian Navy, 1939; was Indian Naval Adv. in the U.K.; Chief of Personnel, Naval Hq.; Commanding Officer, I.N.S. Delhi and Captain Supdt., Naval Dockyard, Bombay; promoted Rear Admiral and apptd. Commandant, N.D.A. Dec. 1958; completed a course at the Imperial Defence Coll., U.K., 1963; Flag Officer Commanding, Indian Fleet, 1964-66. Address: Mazagon Dock Ltd., Dockyard Road, Bombay 10.

SANKALIA, Dr. Hasmukh Dhirajlal, M.A., LL.B., Ph.D. (London). Prof. and Head of the Dept. of History and Jawaharlal Nehru Memorial Fellow, Deccan Coll. Post Graduate and Research Instt., Poona. b. Dec. 10, 1908; Educ.: Elphinstone High School; St. Xavier's Coll. and Law Coll., Bombay; Univ. Coll., London. Bhagwallal Indraji Prizeman (1933), Silver Jubilee Medal, Bombay Branch, Royal Asiatic Soc. (1944); Dadabhai Naoroji Prize, 1968; conducted excavations and explorations in prehistory and early history relating to Gujarat, Maharashtra, Karnatak, Madhya Pradesh, Andhra, Mysore (1941-65); Kashmir & Assam 1969-70; Govt. of India delegate to International Cong. of Orientalists, Ann Arbor, U.S.A., 1967. International Symposium on: Early Man, Paris, 1969; The Philosophy of Archaeology at Flagstaff, Arizona, 1968. Publications: The University of Nalanda; From History to Pre-history of Nevasa; Pre-history and Proto-history in India and Pakistan, etc. Address: Deccan College Research Institute, Poona 6.

SANYAL, B. C., Painter, Sculptor: b. April 22, 1904, Educ.: Calcutta Univ.; Govt. School of Art, Calcutta. Travelled extensively in Russia, Poland, Hungary, etc. at leader of the Artists' delegation, 1955-56; visited: imp. art galleries, muceums and institutes in U.S.A. under the leaders and specialists exchange programme of U.S.A. Govt., 1959; Canada on a lecture tour under the auspices of the Canadian Council for Co-op. with UNESCO, 1959; Netherlands to study Dutch painting and culture, 1959 and Nepal under the Colombo Plan to advise on art educ.; Member, Indian Delegation to International Art Congress, New York 1963; Tokyo 1966. Publications: Articles on Art in journals, newspapers and for radio broadcast. Address: B-15, Nizamuddin East, New Delhi.

SANYAL, Probodh Kumar, Bengali Author, Playwright and Journalist. b. July 7, 1905; Educ.: Scottish Churches School & City Coll., Calcutta. Imprisoned during

N. C., 1922; Associate Editor, Jugantar, 1937-41; awarded first prize as the best scenario-writer, 1942-52; Pres., All-India Bengali Literary Conference, Agra, 1956, Burma 1957; member: Indian Cultural Delegation to Pakistan, 1957; Mepal, 1960; visited U.S.S.R. on invitation by the Soviet Writers' Union Board, 1959; visited Germany, England & France on invitation by Govts. and Cultural organisations, 1962; awarded Cal. Univ. Gold Medal for his contributions to Bengali literature, 1966; Founder-Pres., Calcutta Himalayan Association & Himalayan Federation. Publications: 130 books comprising fiction, travels, dramas, anecdotes, etc.; Mahaprasthaner Pathe and Devatatma Himalaya (forewords by Tagore and Jawaharlal Nehru). Address: 6, Ballygunge Terrace, Calcutta 19.

SAPRU, K. N., B.Sc., M.A. (Cantab.), A.M.I. Prodn.E., Chairman, National Small Industries Corpn. Ltd., since April 1969. b. Dec. 2, 1931; Educ.: Univ. of Allahabad; St. Johns Coll., Univ. of Cambridge; Birmingham Institute of Technology, U.K. Worked with Guest Keen Williams Ltd., Calcutta & Bombay, as Asstt. to 'A' Works Manager, 1956–57; Asstt. (Sales) in Engg. Divn., 1957–65; Branch Sales Manager, 1968–69; member: Governing Council, Small Industry Extn. & Trg. Institute, Hyderabad, since 1969; Panel on Small-Scale Industries in the Fourth Five Year Plan; Delhi Management Assoc. Working Cttee.; Engg. Advisory Panel; Small-Scale Industries Board. Address: C/o National Small Industries Corpn. Ltd., Okhla Industrial Estate, New Delhi 20.

SARABHAI, Smt. Bharatidevi, B.A. (Hons.) (Bom.) and (Oxon.), English and Gujarati Poet and Playwright and Theatre Organiser. b. July 31, 1912; Educ.: Home School; Bombay Univ. and Oxford. Prof. of Indian Research and Culture, Post-Graduate Instt. (B.J. Instt. of Learning & Research, Ahmedabad); Principal, Shreya Coll., Gujarat Univ., 1955-59; Pres., Theatre Centre, India, affiliated to the I.T.I. of UNESCO, 1960; Hon. Seey., Gujarat Univ. Commn., 1945-47. Publications: English: The Well of the People (a poetic drama); Two Women; Gujarati: Be Nari and Ghar Lakhoti. Address: Shahibag, Ahmedabad 4.

SARABHAI, Dr. Vikram Ambalal, M.A., Ph.D. (Cantab), S. S. Bhatnagar Memorial Award for Physics, 1962; Padma Bhushan (1966); Chairman, Atomic Energy Commission, and Secretary to the Govt. of India, Dept. of Atomic Energy, since 1966; Professor of Cosmic Ray Physics and Director, Physical Research Laboratory, Ahmedabad. b. Aug. 12, 1919; Educ.: Gujarat College, Ahmedabad; St. John's College, Cambridge; did research for five years (1940-45) on cosmic radiation under Sir C. V. Raman, N. L., at the Indian Institute of Science, Bangalore, and on nuclear physics at the Cavendish Laboratory, Cambridge, 1946. Chairman: Indian National Cttee. for Space Research, 1962; Electronics Cttee., Dept. of Defence Supplies, Govt. of India, 1967; Electronics Corporation of India Ltd., 1967; Indian Space Research Organisation; Member: Pugwash Continuing Committee; Cttee, on Science & Technology, Govt. of India; Scientific Council of the International Institute of Peace and Conflict Research, Sweden; and several such bodies; Fellow: Indian Academy of Sciences; National Institute of Sciences of India; Physical Society, London; Cambridge Philosophical Society. Publications: Several publications in Physical Review, Nature, Physical Society of London, Proceedings of the Indian Academy of Sciences, Proceedings of the Royal Society Journal of Geophysical Research, Astrophysical Journal etc. Address: Chidambaram, Ahmedabad 13.

SÄRAIYA, Ramanlal Gokaldas, B.A., B.Sc., Padma Bhushan (1963), J.P., Cotton Merchant and Chairman: Narandas Rajaram & Co. Pvt. Ltd., Bombay, since 1961; Banking Commn., since March 11, 1969. b. Jan. 16, 1898; Educ.: Bombay Univ.; England. Fellow of the Chemical Soc., London. Vice-Pres., Indian Central Cotton Cttee., 1947-52; Pres.: Indian Merchants' Chamber, 1950; F.I.C.C.I., 1953-54; often led the Indian Delegation to the Intn'l Cotton Adv. Cttee.; Chairman: 22nd plenary Session of I.C.A.C., Bangalore, 1963; Maharashtra State Road Transport Corpn., etc.; Dir.: Hind Cycles Ltd., Tata Chemicals Ltd., etc.; member: Cotton Adv. Board, etc. Address: Casa Grande, 22, Little Gibb's Road, Bombay 6.

SARIN, Harish Chandra, M.Sc. (Alld.), Mathematical Tripos (Camb.), Wrangler, 1937, I.C.S., Defence Secretary, since Nov. 1968. b. May 27, 1914; Educ.: Allahabad and Cambridge; Imperial Defence Coll., London. Entered I.C.S., 1939; served in Bihar Sectt. & Defence, Commerce, Transport & Civil Aviation Ministries, Govt. of India, since 1946; Secretary to Govt. of India, from July 1964; member: Deshmukh Cttee. on National Service for Youth 1959-60 and Kunzru Cttee. on Coordn. of schemes operating in the field of Physical Edu., Recreation & Youth Welfare, 1959-64. All India Council of Sports since 1966; Founder Member-Secy.: Himalayan Mountaineering Institute, Darjeeling from 1954; Nehru Institute of Mountaineering, Uttar Kashi from 1965; Founder-Member from 1957 and Pres. from 1966, Indian Mountaineering Foundation which sponsored the successful Indian Mount Everest Expedition of 1965; Chairman: Central Sectt. Sports Control Bd. (Hockey and Athletics); Vice-Pres., Mazagon Dock Ltd., 1964-69. Address: 18, Tughlak Crescent, New Delhi.

SARMENTO C., H.E. Mr. Eduardo, Engr. (Lima Univ.), Amb. of the Republic of Peru in India, since 1964. b. Sept. 5, 1909; Educ.: Lima, Peru and The United States of North America; Univ. of Lima Engr.s and Univ. of Portland, Oregon, U.S.A. Vice-Consul of Peru in New York, U.S.A., 1930-32; Consul in Portland, Oregon, U.S.A., 1933-42; Consul Gen. in Africa, Chile, 1943; Chief of Deptt. Europe and Asia, Min. of Ext. Affairs en Lima, Peru, 1944; First Secy., Embassy of Peru, Mexico, 1945; Consul Gen. in: Amsterdam, Netherlands, 1946-48; Antwerp, Belgium, 1949-50; Dir., Min. of Ext. Affairs, Lima, Peru, 1951-62; Min. Plenipotentiary of Peru in India to initiate diplomatic relations, 1963. Address: Residence: Ashoka Hotel, New Delhi; Office: D-290, Defence Colony, Chancery of Embassy, New Delhi.

B. S. Krishnamurthy, Musician: Principal, Kalakshetra, Adyar, Madras. b. April 29, 1894; Educ.: Learnt vocal music under his father Sri Sethurama Sastrigal; took trg. in vocal music from Konerirajapuram Sri Vaidyanatha Iyer; learned gottuvadyam from Sri Muthia Bhagavathar; has been giving concerts continuously for the last 50 years; awarded by the President a shawl, a gold shrinkal and a sanad in recognition of his service to the cause of instrumental music, 1958; blessed by Jagadguru Sri Sankaracharya of Kamakoti Peetam with 'Ponnadai' (1960); titles conferred: Sangeet Kalanidhi' (1964) by Music Academy, Madras; 'Sangitha Kala Sikhamani' (1969) by Indian Fine Arts Soc., Madras; Visiting Prof., Karnatic Coll., Madras. Address: 27, Urur, Adyar, Madras 20.

SATHE, Dr. Ramchandra Vishwanath, M.D. (Bombay), F.R.C.P. (Lond.), ex-Vice-Chancellor, Bombay Univ., 1963-66; Pres., Diabetic Assoc. of India; Hony.

Dir. of Post-graduate Studies in Medicine and Emeritus Prof. of Medicine, Grant Medical Coll., Bombay; Consulting physician. b. Nov. 28, 1905; Educ.: Elphinstone High School, Elphinstone Coll. and Grant Medical Coll., Bombay; London; won several scholarships, J. J. Gold Medal for Clinical Medicine and Hewlett prize for Hygiene. Member: Senate and Faculty of Medicine, Bombay Univ.; Health Survey & Plng. Cttee., Govt. of India; New York Academy of Scs.; Indian Medical Assoc. delegate, World Medical Educ. Cfce., Chicago and World Medical Assoc. Session, Montreal, 1959; Pres.: Ind. Med. Assoc., 1962; World Medical Assoc., 1962-63; Dy. Pres., World Cfce. on Medical Educ., 1966. Address: Nagindas Mansion, Girgaum Road, Bombay 4.

SATHIAVANIMUTHU, Smt., Minister for Harijan Welfare and Public Health, Tamil Nadu, since March 6, 1967. b. 1923; Educ.: St. Teresa's Convent, Ernakulam, Kerala; Govt. Secondary School, Egmore. Is a homoeopathic doctor; Exec. member, Dravida Kazhagam, 1943-49; is one of the founder members of D.M.K.; is a member, Exec. Cttee. and General Council, D.M.K.; Secy. for propaganda of the party; courted jail in the anti-Hindi agitation; is connected with a number of social welfare institutions and 'Magalir Mandram' (Women's Assoc.); is Pres., Women's Wing of the Party; elected M.L.A., Madras from Perambur, 1957 and 1967. Publications: A Sketch of the life of Joan of Arc, in Tamil and Information, Fort St. George, Madras 9.

SATPATHY, Smt. Nandini, M.A., Minister of State attached to the Prime Minister of India, since June 27, 1970. b. 1931; Educ.: Orissa. Has been a social worker; Convener, Women's Deptt., Utkal P.C.C., since 1960; M.P., Rajya Sabha, 1962; Chairman, Children's Film Society, India; Vice-President: All India Women's Conference; Nritya Niketan, New Delhi; Member: Tourist Development Council; Advisory Board, Youth Congress, AICC; Business and Professional Women's Association, Delhi; Leader, Indian Delegation to: Film Festival, Moscow; First Afro-Asian International Film Festival, Tashkent, Oct. 1968; Deputy Min. attached to the Prime Minister, 1969-70; Dir., International Centre of Films for Children and Young People. Address: Prime Minister's Secretariat, New Delhi.

SATWALEKAR, Madhav, G. D. Arts, Artist; Director of Art, Maharashtra State, since Jan. 1969. b. Aug. 13, 1916. Educ.: Sir J. J. School of Arts, Bombay; Florence, Italy and Slade School, London. Has had several exhibitions in Bombay & Delhi; spent a year in East Africa painting that country, 1949; has painted portraits of the Pres. & Vice-Pres. of India and others; visited Europe, 1963 to study new art trends & latest methods of art trg.: held exhibitions in Berlin and Zurich. Address: Flat 38, Govt. Quarters, Narayan Dabholkar Rend, Bombay 6.

SAVANT, Parshuram Krishnarao, B.A., LL.B., Minister for Agriculture, Maharashtra State, since March 1967. b. June 8, 1908, at Mirya, Ratnagiri Dist.; Educ.: Ratnagiri and Bombay. Practised as a lawyer in Bombay till 1940; member, Bombay Municipal Corpn., 1939-46; Gen. Secy., Bombay Municipal Cong. Party; was a member, B.P.C.C. and its Gen. Secy., for some time; was member, Bombay State Road Transport Corpn., Bombay, the Labour Welfare Board, etc.; elected M.L.A., Bombay, 1946 & Maharashtra, 1962 & 1967; Parly. Secy., Bombay Govt., 1946-48; was connected with Rashtriya Mill Mazdoor Sangh, Bombay; INTUC and A.I.T.W.F.

in various capacities; Adv., Workers' Delegation to the I.L.O., Geneva, 1954; is member: Exec. Cttee., M.P.C.C.; A.I.C.C.; Min. for: Agr., Maharashtra, 1960-62; Public Health, March-Nov. 1962; Dy. Leader, Cong. Leg. Party & Min. for Home, 1962-63; Min. for: Agriculture, 1963-65; Agriculture, Food & Civil Supplies, 1965-67. Address: Sachivalaya, Bombay 32.

SCHRECK, H.E. Mr. Wilhelm, M.A., Ambassador of Finland in India, since Oct. 10, 1968, (concurrently Bangkok, Colombo, Djakarta, Rangoon). b. April 12, 1913. Entered Finnish Foreign Service 1939; Attaché, Secy. in legations in Copenhagen, Berne; Counsellor, Embassies, Peking, Ankara; Deputy Director, Political Affairs, Min. for Foreign Aff., Helsinki 1961-64; Ambassador in Sofia 1964-68. Address: 42, Golf Links, New Delhi 3.

SEETHA DEVI, Kumari Vinjamuri, B.A., M.Litt., Musician; Asst. Producer of Folk Music, A.I.R., Hyderabad. b. Dec. 2, 1926; Educ.: P. R. Coll., Kakinada; Madras Univ.; did research in folk music. Was Music Lecturer in Stella Coll., Madras; gives public performances in lyric and folk music in the country & from A.I.R.; a play-back singer, has given folk tunes to pictures in Telugu, Tamil and Hindi; has acted in Telugu and English dramas; gave lyric and folk music at: UNESCO Seminar, New Delhi, 1950 and other national functions. Publications: Her thesis for M.Litt., Folk Music of Andhra Desa, under publication by the Sangeet Natak Akademi, New Delhi. Address: 32, Rama Street, T. Nagar, Madras 17.

SEMA, Hokishe, Chief Minister, Nagaland, since Feb. 1969. b. March 6, 1921; Educ.: Mokokchung High School; Serampore Coll., West Bengal; St. Anthony Coll., Shillong; Founder-Leader of Youth orgs. for unity and understanding among various Naga tribes, 1942-48; Pres., Sema Students' Union, 1942-52; Educ. Service 1952-55; Administrative Service, 1956-58; Member: Sema Public Orgs. and Naga People's Convention, 1958-60, Select Cttee. and Drafting Cttee., Naga People's Convention 1960-61; Exec. Councillor, Finance, Nagaland, 1961-63; elected M.L.A., Nagaland, 1963; Min. for Finance and Health, Nagaland, 1964-68; re-elected to the Leg. Assembly as leader of Nagaland Nationalist Org., 1969. Address: Kohima.

SEN, Ashoka Kumar, B.A. (Hons.), Director-General, All India Radio, since June 7, 1968. b. Aug. 18, 1913; Educ.: Modern School, New Delhi; St. Stephen's Coll., Delhi; received training in the B.B.C. Was Director, Lucknow, Dacca and Calcutta Stations of the A.I.R.; Deputy Director-General, A.I.R., 1952; Regional Officer, Central Board of Film Censors, for six years, acted as Chairman for some time, represented A.I.R. at the Fourth General Assembly, Asian Broadcasting Union, Singapore, 1967; Chairman, Programme Cttee. Asian Broadcasting Union, 1968. Address: 10, Lodi Estate, New Delhi 3.

SEN, Boshi (Basiswar), B.Sc. (Calcutta), Padma Bhushan (1957), Wattumull Award for Agriculture, 1962, Fellow, A.A.A.S., Ind. Bot. Soc., N.A.S.I., Scientist; Dir., Vivekananda Laboratory, Almora. b. Nov. 1887; Educ.: Calcutta Univ.; research with Sir J. C. Bose, Bose Instt., Calcutta; London Univ.; Strangeways Lab., Cambridge; Marine Biological Lab., Plymouth and New York Univ., New York. Joined J. C. Bose for research, 1911; founded the Vivekananda Laboratory in Calcutta for research in Gen. Physiology; joined the short course of Peaceful Uses of Atomic Energy at Oak Ridge, U.S.A., 1955 and attended the First Intn'l Cfce. in Geneva. Publications: Several

scientific papers in Indian, British and American Jourtals. Address: Kundan House, Almora, U.P.

SEN, Mihir Kumar, B.Sc., LL.B., Barrister-at-Law, Associate Fellow, Br. Inter-Planetary Soc., Padma Shri, Padma Bhushan (1967), Swimmer. b. Nov. 16, 1930, at Purulia (West Bengal); Educ.: Ravenshaw Collegiate School and Ravenshaw Coll., Cuttack; called to the Bar from Lincoln's Inn, Nov. 1954. Set up practice at Calcutta High Court, May 1956; first ever Indian to: attempt and swim the English Channel from Dover to Calais, Sept. 1958, in 14 hours 45 mins, then the fourth fastest in this direction; first man to swim the Palk Strait, a distance of 22 miles between India and Ceylon in 25 hrs. 36 min., 5/6 April, 1966; first Asian to swim the straits of Gibraltar on Aug. 24, 1966; first man to swim the Dardanelles Straits a distance of about 40 miles in 13 hours and 55 minutes, Sept. 12, 1966; swam the straits of Bosporus, 16 miles without stopping, Sept. 21, 1966; Panama Canal 42 miles, 35½ hours, Oct. 31, 1966; acknowledged as the world's Greatest Long Distance Swimmer by Guinness Book of Records, Lond. 1969. Founder, Explorers' Club of India, Calcutta, Address: 11, Government Place East. Calcutta 1.

SEN, Nikhil Ranjan, D.Sc. (Cal.), Dr. Phil. (Berlin), F.N.I., Scientist. b. May 23, 1894 at Dacca; Educ.: Govt. Schools at Dacca, Rajshahi; M.Sc. from Presidency Coll., Calcutta, 1916; Munich and Berlin Univs. Appointed Post-graduate Lecturer in Applied Maths., Calcutta, 1917; studied in Germany and France, 1921-24; Pres., Calcutta Mathematical Society, 1935-57; member, National Cttee. for India, International Mathematical Union; Prof., Applied Maths., Calcutta Univ., 1922-59. Publications: Original contributions in Indian and foreign journals on cosmology and theory of turbulence. Address: 58A, Block D, New Alipore, Calcutta 53.

SEN, Prafulla Chandra, Ex-Chief Minister, West Bengal. b. 1897, Sahabad Dist., Bihar; Educ.: Sasharam, Buxar and Deoghar; B.Sc., the Scottish Church Coll., Calcutta. Joined the Non-co-op. Movement; was teacher, Hooghly Vidyamandir; took a leading part in the mass Civil Disobedience movements in 1930, 1932 and 1942 in Arambagh Sub-divn. of Hooghly Dist.; courted jail several times; worked for Dwarkeshwar flood relief in Arambagh, 1922; started Khadi centres in many villages of Arambagh and settled there; Congress M.L.A., West Bengal, from Khanakul Constituency, 1962-67; Chief Min., West Bengal, 1962-67; visited Japan, 1964. Publications: Purpose & Perspective; New Dimensions; From there to New Horizons. Address: Calcutta.

SEN, Samar, B.A. (Cal.), B.Sc. (Lond.), I.C.S., Kaiseri-Hind (1943), Padma Shri (1957), Permanent Rep. for India in U.N., since Jan. 1969. b. Aug. 10, 1914. Educ.: Bengal, London & Oxford. Entered I.C.S., 1938; held several posts in Bengal, 1939-46; Under-Secy., Dept. of Ext. Affairs, Govt. of India; Liaison Officer, Govt. of India to the U.N., New York, 1946-48; Dy. Secy., Min. of Ext. Affairs and Commonwealth Relations; Head of Chancery, High Commn. of India in London; Dy. Secy. (Ext. Affairs) in Charge of Ext. Publicity 1951-53; Consul-Gen. in Switzerland (Geneva) and Indian Rep. to the Intn'l Org. at Geneva, 1953-55; Chairman, Intn'l Commn., Laos, 1955-57; Joint Secy., Min. of Ext. Affairs, 1957-59; High Commr. in Australia and New Zealand, 1959-62; Amb. to Algeria, 1962-64; Amb. to Jordan, Kuwait & Lebanon & High Commissioner to Cyprus, 1964-66; High Commr. to Pakistan, 1966-68. Address: C/o Ministry of External Affairs, Govt. of India, New Delhi.

SLN, Sukumar, M.A., Ph.D., F.A.S., Chairman, Paribhasa Samsad, Govt. of West Bengal, J.P., Writer, member, Sahitya Akademi. b. 1900; Educ.: Burdwan and Calcutta. Author of several works on Sanskrit and Prakrit Philology and on history of Bengali literature and of Indian literature (from the Vedas upto Avahattha); was Khaira Prof. of Indian Linguistics and Phonetics, Calcutta Univ. Publications: History of Brajabuli Literature, 1935; Comparative Grammar of Middle Indo-Aryan, 1960; History of Bengali Literature, 1960; in Bengali: History of Bengali Literature (in five volumes), etc. Address: 403, Grand Trunk Road, Burdwan; 10, Raja Rajkissan Street, Calcutta 6.

SEN, Dr. Triguna, D. Ing., Padma Bhushan (1965), Educationist and Technologist; Minister of Petroleum and Chemicals and Mines and Metals since Feb. 14, 1969. b. Dec. 24, 1905; Educ.: Calcutta and Germany. Admn. Officer, Coll. of Eng., and Technology, Bengal '43-'44; Principal '44-'55; Rector, Jadavpur Univ. 1955-64; Vice-Chancellor: Jadavpur Univ. '64-'66; Banaras Hindu Univ. '66-'67; Mayor of Calcutta 1958 and 1959; Pres.: Assoc. of Principals of Technical Institutions in India, 1961 and 1962; Inter-Univ. Board of India and Ceylon, 1963: Institution of Engineers (India), 1962-63 and 1963-64; Director: Central Board of the State Bank of India, 1959-62; Reserve Bank of India, 1964-66; Member: Education Commission, 1964-66; Institution of Mechanical Engineers (London); Minister of Education, March 16, 1967-Feb. 13, 1969; Chancellor, Jadavpur Univ., Dec. 1969-May 1970. Address: New Delhi.

SEN-VARMA, Shyama Prasanna, M.A., Ll.M. (Calcutta), Chief Election Commissioner of India, since Oct. 1, 1967. b. Feb. 1, 1909 at Barisal Dist. (E. Pakistan); Educ.: Calcutta Univ.; Gold medalist, 1st class in Ll.M. Member, W. B. Judicial Service, 1942-51; served the Govt. of India, Min. of Law as: Dy. Draftsman, Addl. Draftsman, Jt. Secy. & Draftsman & Officer on Special Duty, 1951-60; Secy., Hindu Religious Endowments Commission, Mar.-July 1960; Indian delegate to the U.N. Human Rights Seminar on Freedom of Information, 1962; Special Secy. and Member, Law Commission, 1963-66; Secy., Govt. of India, Min. of Law, 1966-67. Publications: The Law of Elections to Parliament and State Legislatures. Address: Office: Chief Election Commissioner of India, Talkatora Road, New Delhi; Residence: 19, Safdarjang Road, New Delhi.

SESHADRI, Thiruvenkata Rajendra, M.A. (Madras), Ph.D. (Manc.), D.Sc. (h.c.), F.R.I.C., F.A. Sc., F.N.I., F.R.S., Padma Bhushan (1963), member, German Academy of Natural Scientists. Scientist; Emeritus Professor, Chemistry Dept., Delhi Univ., since 1965. b. Feb. 3, 1900; Educ.: Srirangam; Tiruchirapalli; Presidency Coll., Madras; Univ. of Manchester; Univ. Coll., London; Medical Chemistry Laboratory, Graz, Austria; Deptt. of Medical Chemistry, Univ. of Edinburgh. Soil Chemist, Agrl. Research Instt., Coimbatore, 1930-33; Reader and later Prof. and Head of the Deptt. of Chemistry, Andhra Univ., 1933-49; Prof. and Head of the Chemistry Deptt., Delhi Univ., 1949-65. Publications: Over 800 original papers in Chemistry; a book on Chemistry of Vitamins & Hormones. Address: 8, Cavalry Lines, Delhi University, Delhi 7.

SETALVAD, Motilal Chimanlal, B.A., LL.B., Padma Vibhushan (26 January 1957); Hon. Doctor of Laws (B.H.U.) (1967). b. Nov. 12, 1884; Educ.: Elphinstone Coll., Bombay. Enrolled as Advocate, Bombay High Court, 1911; Advocate-General, Bombay, 1937-42;

member: Kashmir Delegation to Security Council, 1948; Leader of the Delegation to U.N. General Assembly, 1949; Principal Rep. of India for the Kashmir question at the Security Council, 1952; Chairman, Law Commission, 1955-58; Pres., Bar Assoc. of India; Attorney-General of India, 1950-62; M.P. (Rajya Sabha), 1966. Publications: Civil Liberties; Common Law in India; Law & Culture; Role of English Law in India; Secularism; The Indian Constitution, 1950-65; U.N. & World Peace; Bhulabhai Desai. Address: 11, Safdarjang Road, New Delhi 11.

SETH, Darbari Shah, B.Sc. (Hens.), M.Sc. (Chem.) (Hons.) (Punjab & Cincinatti), Industrialist. b. Jan. 1, 1920; Educ.: Punjab Univ.; Univ. of Cincinatti, Ohio. Director: Tata Industries P. Ltd., Tata Chemicals Ltd., Rallis India Ltd., Tata Fison Industries Ltd., etc.; member: Board of Scientific & Industrial Research, C.S.I.R.; Exec. Council, National Chemical Laboratory, Poona; Development Council for Inorganic Chemical Industry, Govt., of India; Advisory Cttee. (Chemical Process & Allied Industries), Industrial Finance Corpn. of India, New Delhi. Address: Office: Bombay House, Bruce St., Fort, Bombay 1; Residence: "Love-Dale", 50-F, Peddar Road, Bombay 26.

SETHI, Dr. Narendra Kumar, A.M. (Agra & Calcutta), M.B.A. (New York), Ph.D. (New York), M.R.A.S., M.B.H., Sahitya Ratna, Visharad, Dharma Ratna, Sahitya-charya, etc., writer, poet, prof., industrialist, management consultant and Assoc. Prof. of Management, St. John's Univ. Coll. of Business Admn., Jamaica, New York; Chairman, Management Deptt., St. John's Univ., b. July 12, 1935; Educ.: Mhow, Indore, Ujjain, Calcutta, London and New York. Broadcast talks and poetry over A.J.R., B.B.C. (Lond.), W.E.V.D. (New York), W.O.R. (New York), and W.B.A.I. (New York); Dir., India Centre, New York; Pres., Indian Forum, New York. Publications: The World is Split (1961); Shabda Ki Chalna; The Deceipt of World (1961); Bibliography of Indian Management; Song Lines of a Day; Management Perspectives and The Setting of Administrative Management in India (1969). Address: Neminiwas, Tukoganj, Indore; St. John's Univ., Jamaica, New York 11432.

SETHI, Prakash Chand, B.A., LL.B., Minister of State (Defence Production), Ministry of Defence, Govt. of India, since June 27, 1970; b. Oct. 19, 1920; Educ.: Holkar Coll., Indore; Madhav Coll., Ujjain, Congress worker since 1942; member, A.I.C.C., 1951; Pres., Ujjain Dist. Cong. tnrice, 1951-59; Pres., Ujjain Municipality, 1960; M.P., Rajya Sabha, 1961; widely travelled abroad; attended Commonwealth Fin. Ministers' Cfee., Sept. 1969, Barbados; Leader, Ind. Delegation to Colombo Plan Cfee., Oct. 1969. Union Dy. Min. for: Steel & Heavy Engg., 1962-64; Steel & Mines, 1964-66; Iron & Steel, 1966-67; Union Min. for Steel, Mines & Metals, 1967-69; Min. of State for Finance, Feb. '69-June '70. Address', Anup Bhavan, Madhav Nagar, Uji in (M.P.); 7, Safdarjang, New Delhi.

SETHNA, Homi Nusserwanji, B.Sc., B.Sc. (Tech.), (Bom.), M.S.E. (Chem. Engg.) Mich. F.A.Sc., Padma Shri (1959), Shanti Swarup Bhatnagar Memorial Award (1960), Padma Bhushan (1966), Sesquicentennial Award of the Mich. Univ. (1967) for Knowledge, Wisdom & Courage to Service; Scientist; Director, B.A.R.C., Bombay; Member, Research & Devptt., Atomic Energy Commn. b. Aug. 24, 1923; Educ.: St. Xavier's School and Coll., Bombay; Univ. of Michigan (U.S.A.). Has been responsible for the designing and construction of the

plutonium plant at Trombay; Project Mgr. (India) for the Canada India Reactor; member: Indian Instt. of Chemical Engineers; Electronics Corpn. of Irdia, Ltd.; Cttee. on Science & Technology, Cabinet Secretariat; Scientific Adv. Cttee., International Atomic Energy Agency, & other such bodies; Dy. Secy.-General, Second U.N. Intn'l Cfce. on the peaceful uses of atomic energy, Geneva, 1958; Chairman: Madras Atomic Power Board; Rajasthan Atomic Power Project Board. Address: Bhabha Atomic Research Centre, Atomic Energy Commission, Trombay, Bombay 85; Residence: Panorama, 203, Walkeshwar Road, Bombay 6-WB.

SETHNA, Dr. Minocher Jehangizji, Ph.D. (Bom.), Philosopher, Jurist, Writer, Prof. and Counsel; Founder and Pres., Indian School of Synthetic Jurisprudence. b. Nov. 1, 1911; Educ.: Wilson Coll., Bombay Univ. and at Middle Temple, London. Is Prof., Bombay Univ. Publications: Society and the Criminal; A Standard Text Book on Jurisprudence; A Standard Text Book on Indian Company Law; A Standard Text Book on Indian Mercantile Law; Ciril Wrongs and Their Legal Remedies; Law and Morality; Essentials of an Ideal Legal System; Photography; and some philosophical writings. Address: Sethna House, 251, Tardeo Road, Bombay.

SHAH, Mr. Justice Jayantilal Chhotalal, LL.B., Judge, Supreme Court, since Oct. 12, 1959. b. Jan. 22, 1906; Educ.: Gujarat Coll., and Elphinstone Coll., Bombay Practised at Ahmedabad Dist. Court and at Bombay High Court; Advocate (O.S.); Chairman, Food Poisoning Enq. Commn. apptd. by the Govt. of India to investigate the causes of food poisoning in Kerala State; Judge, Bombay High Court till Oct. 1959; Chairman, Punjab Commn., 1966. Address: 11, Tuglak Road, New Delhi.

SHAH, K. K., B.A., LL.B., Minister for Health, Family Planning, Works, Housing and Urban Devpt., Govt. of India, since Feb. 14, 1969. b. Oct. 15, 1908 at Goregaon, Dist. Kolaba; Educ.: Gujarat Coll., S. P. Coll. & Govt. Law Coll., Poona. Practised Law, 1934; courted jail in the National Movement; was General-Secy., B.P.C.C., for many years; its Vice-Pres. 1955-57, Pres. 1957-60; General Secy., AICC, 1962-63; was member, Bombay Municipal Corporation, for many years; M.L.A., Bombay, 1952; M.P., Rajya Sabha, 1960-66; closely connected with educational, social and cultural organisations like the Senates of the Bombay and Baroda Univs., Bombay State Famine Relief Cttee., etc.; was Pres., Indo-Arab Society and the Brihad Bharativa Samaj: Chairman, International Forum and the Textile Commission; Gen.-Secy., Central Citizens' Council, since 1965; has widely travelled in Europe, America and Japan; leader, Indian delegation to the Conference for Economic Sanctions against South Africa, London, 1964; Minister for I. & B., 1967-69. Address: 4, Motilal Nehru Marg, Jw Delhi 11.

SMAH, Kastoor Mal, Industrialist, Jaipur; Partner; Shah & Co., Jaipur; Shah Brothers, Jaipur & Bombay: Shah Agro-Chemicals, Jaipur & Shri Mahavecrji Gen. Export Co., Jaipur & Calcutta; Dir.: Shah Enggs. (P) Ltd., Jhotwara, Jaipur; Rajasthan Hotel Corpn. Ltd., Jaipur; Chairman: Federation of Assocns. of Small Industries, Rajasthan; Member: Rajasthan State Electricity Consultative Council, Jaipur. Address: Shah Bldg., S.M.S. Highway, Jaipur 3.

SHAH, M. L., J.P., Prominent business man and industrialist of Calcutta; Commr. for the Port of Calcutta. b. Aug. 1894. Partner in the firm of Mg. Agents, for The

Mohini Mills Ltd., Nos. I and 2 and Chimanlal Vadilal & Co.; was thrice Pres., I.C.C. and Bengal Millowners' Assen., Cal.; is Pres., Ind. Soc. for Quality Control; Dir. of many jute, tea and instt.s in Cal.; Ex-Pres., A.I.M.O.; Cttee. Member: F.I.C.C. & I.; Cotton Adv. Board; Ind. Cotton Mills Federation, etc. Pres., All India Textile Assocn. (Cal. Branch); member: Cotton Textile Export Promotion Council, Bombay; All-India Board of Tech. Studies in Textile Tech., New Delhi; Fin. Cttee. of the Ind. Red Cross Soc., West Bengal State Branch; member, Telephone Adv. Cttee., Calcutta. Address: 22, Canning Street, Calcutta.

SHAH, Manubhai Mansukhlal, B.Sc. (Hons.), B.Sc. (Tech.), Chairman, Gujarat Industrial Devpt. Corpn. & Gujarat Industrial Investment Corpn. since 1967. b. Nov. 1, 1915; Educ.: Baroda Coll., Baroda; Instt. of Science, Bombay. Served in high tech. and admnive. posts in the Delhi Cloth & General Mills Co. for over 12 years; Min. for Fin., Govt. of Saurashtra, 1948-56; Union Min. of Industry, 1956-62; Union Min. of Intn'l Trade, 1962-64; Union Min. of Commerce, 1964-67. Address: 8, Teen Murty Lane, New Delhi 11; Ahmedabad 9.

SHAH, Shantilal Ranchhoddas, B.A., (Hons.), Minister for Labour, Social Welfare, Prohibition and Excise, Rehabilitation and Housing, Gujarat, since March 1967. b. April 28, 1914; Educ.: Nadiad and Bhavnagar; trained in Trade Union movement at Gandhi Majoor Seva Samiti; worked in T.L.A. for 31 years as trade unionist; Elected to the Ahmedabad Municipal Corpn., 1961; actively associated with the Gujarat State Finance Corpn., Central Prohibition Advisory Cttee., Minimum Wages Enquiry Cttee., Labour Advisory Cttee., etc.; has travelled extensively in many countries as a representative of labour; participated in the Duke of Edinburgh Confee. and attended the I.L.O. Conference; elected to the Gujarat Vidhan Sabha from the Rakhial (Ahmedabad) Constituency, 1967. Address: Sachivalaya, Ahmedabad 15.

SHAH, Shivjibhai Devshi, Writer. b. June 1, 1880; Educ.: Nalia, Kutch. At a young age got inspiration from Shrimad Rajchandra, Mahatma Gandhi's Guru and took up social work; was keenly interested in literary activities; founded Jain Students' Home, Palitana; started two magazines, Ananda, 1923 and Madhukar, 1924; established primary schools for boys and girls in Kutch; founded several institutions in Kutch, Bombay, Palitana, etc.; joined Home Rule League, 1938; had darshan of Shri Aurobindo, 1943; travelled extensively in India preaching the gospel of peace. Publications: Autobiography; about 105 books some of which are Manorama, Jain History, Anand Ratnavali, Dharma Sangrah, etc. Address: Kooverji Devshi & Co. P. Ltd., Tardeo Road, Bombay 34.

SHAH, Virendrakumar Jeewanlal, M.P., Vice-Chairman & Managing Director, Mukand Iron & Steel Works Ltd., b. May 12, 1926 in Calcutta; Educ.: Hansraj Morarji Public School, Wardha Coll. of Commerce and Ruia Coll., Bombay. Director of several industrial organisations; travelled extensively in U.S.A., U.S.S.R., Europe and Japan; Founder Chairman, Steel Furnace Assoc. of India; Chairman, Steel Re-Rolling Mills' Assoc. of India; member: State Advisory Council of Industries, Maharashtra and Gujarat States; Iron & Steel Advisory Council, New Delhi; Cttees. of F.I.C.C. & I., New Delhi; Indian Merchants' Chamber, Bombay; Rotary Club of Bombay; M.P., Lok Sabha from Junagadh, 1967. Address: Mukand Iron & Steel Works Ltd., Kurla, Bombay 70 AS.

SHAKUNTALA DEVI, Mathematician. b. Nov. 4. 1936, in Bangalore. Numbers fascinated her even at an early age; at the age of five she was an expert of arm-long numbers, and worked out the most complicated arithmetical manipulations with lightning rapidity and scientific precision; is popularly known as the human calculating machine; gave demonstrations all over India; went to Europe and other parts of the world confounding experts and the makers of the computing machines; has toured and given demonstrations in all the countries of the six continents except Eastern Europe, Russia and China; has been acclaimed throughout as a remarkable lady; appeared on television shows many times in the U.S.A., the most famous being "The house party" television show of Art Linkletter and Art Baker's "You asked for it". Address: 44 A/2, Ironside Road, Calcutta 19.

SHAM LAL, Editor, The Times of India, Bombay, since Nov. 1967; Editor: The Times of India Annual, Bombay, and The Times of India Directory & Yearbook including Who's Who, Bombay, b. Nov. 7, 1912; Educ.: M.A., Govt. Coll., Lahore, 1933. With The Hindustan Times, 1934-46; Asstt. Editor, Indian News Chronicle, Delhi, 1946-50; joined The Times of India as Asstt. Editor, 1950; Resident Editor, The Times of India, Delhi edition, 1962-67; writes a weekly political column "The National Scene" and occasional literary column under pen-name "Adib". Address: Office: The Times of India, Bombay 1; Residence: 22, Ashoka Apartments, Nepean Sea Road, Bombay 6.

SHANKAR, Ravi, Presidential Award (1962), Padma Bhushan (1967), Hon. Doctor of Fine Arts (California Univ.) (1968), Musician. b. April 7, 1920; Educ.: Learned music & dancing. Began his career in the company of Uday Shankar; travelled extensively in India & abroad; later devoted himself to sitar with Ustad Allaudin Khan; Dir. of Music, A.I.R. 1949-55; participated in the 10th Anniversary celebration of the U.N. & UNESCO's music festival in Paris, 1958; first Indian musician to write music for foreign films; gave several concerts, in U.S., 1961 & 1964; wrote & conducted orchestral music for a ballet set to Nehru's Discovery of India; opened the Kinnara School of Music in Los Angeles, May 1967; won Silver Bear for score and Venice Festival Award. Publications: Book of Music Memory; My Music; My Life. Address: C/O Sancharini, A-3, Fairfield, South Avenue, Bombay 54.

SHANKAR, Uma, B.Sc., C.E., M.I.T.E., M.I.E.E., General Manager, Bennett, Coleman & Co. Ltd., Proprietors of the Times of India and Allied Publications, since May 17, 1970. b. Dec. 25, 1910; Educ.: La Martiniere Coll., Lucknow, upto Inter. Science; B.Sc., Allahabad Univ.; C.E., Roorkee Univ.; had a brilliant academic career. Joined the Telegraph Engg. Service Class I standing first in the all-India Engineering Services Competitive Examination, 1935; Director of Telegraphs, 1947-54; General Manager, Calcutta Telephones, 1954-60, during which he carried out the conversion of the Calcutta telephone system to automatic working (a Rs. 14-crore scheme and largest after London) in record time; General Manager, Bombay Telephones, 1960-61; Dy. Dir.-General (Telegraphs), P. & T. Directorate, New Delhi, 1961-63; Managing Director, Indian Telephone Industries, Bangalore, 1963-69 (also member, Posts & Telegraphs Board upto 1968), and Chairman, 1969-70. Publications: Several scientific and technical papers on the development of tele-communications in India, Labour Relations, Problems of Automation, Cultural Unity of India, etc. Address: Residence: 95, Gitanjali, 75, Walkeshwar Road, Bombay 6; Office: The Times of India, Dr. D. N. Road, Bombay 1.

SHANMUGAM, P. U., Minister for Labour, Govt. of Tamil Nadu, since Feb. 1969. b. Aug. 15, 1924; Educ.: Municipal High School, Tiruvannamallai. An active Member of the D.M.K. Party for several years; was Chairman, Municipal Council, Tiruvannamalai; courted jail in the D.M.K. movement; was member, State Assembly, 1957-62; elected M.L.C., Tamil Nadu from the North Arcot-South Arcot Teachers' Constituency in April 1968. Address: 14, First Crescent Park Road, Gandhi Nagar, Adyar, Madras-20.

SHANTARAM, V., leading Film Producer, Dir. & Actor. b. Nov. 18, 1901; Educ.: Kolhapur. Associated with film industry from 1920; founder, member, Prabhat Film Co., Poona; recipient of National & Intn'l Awards for best picture, best direction, best techniques, etc.; was Chief Producer, Govt. Films Divn.; was member, Censor Board, Film Adv. Board, etc.; his film "Two Eyes Twelve Hands" won the "Gold Bear" of the Intn'l Film Festival, Berlin, The Hollywood Foreign Press' Samuel Goldwyn Award for the "Best Picture" and a plaque by the Catholic Film Bureau, Brussels for the "best human document." Address: Rajkamal Kalamandir (Pvt.) Ltd., Parel, Bombay 12.

SHANTILAL, Mangaldas, B.A. (Bom.), Chairman, Gujarat Steel Tubes Ltd. b. 1901. Chairman, New Jehangir Vakil Mills Co., Ltd., Bhavnagar; Dir. of many other concerns; Pres., F.I.C.C. & I., New Delhi, 1955-56; Pres., Ahmedabad Millowners' Assoc., 1946; Member, Senate of the Bombay Univ., 1928-43; attended the Textile Cttee. meetings of the Intn'l Labour Org. at Brussels, 1946 and at Geneva, 1948 as Employers' rep.; takes interest in social work and educ. Address: Near Police Lines, Shahibag, Ahmedabad.

SHARMA, Benudhar, Sahitya Akademi Award (1960), Assamese Writer. b. Nov. 15, 1894, at Charing, Sibsagar, Assam; Educ.: Charing; Sibsagar Govt. High School, Bangabasi Coll., Calcutta. Joined Non-Coop. Movement, 1920; courted imprisonment; left Congress, 1937; is a historian, biographer and short story writer; has widely travelled in India. Publications: Assamese: A Short Sketch of Khan Abdul Gaffar Khan; Rangpata; Gangagovind Phukan; Maniram Dewan; Durvin; Bangamua Noujatrar Apadiya Kahini: Kangrecar Kanciyali Rodat (1959); History of the Dakhinpat Sattra (1967), Latumani; Dunari; Arghyavali; Phul-Candan. Address: Swagpur, Rehabari, Gauhati S.

SHARMA, Bhawat Dayal, M.A., Ex-Chief Minister, Haryana State, 1966-67. b. at Beri, Dt. Rohtak, Jan. 26, 1917; Educ.: Schooling at Beri; M.A. degree from Banaras Hindu Univ. Entered politics while a student; courted jail in the individual satyagraha, 1941 and in the Quit India Movement, 1942-46; joined as a teacher, Birla High School, Pilani, 1946; organised labour union at Jagadhari; elected Pres., the Punjab, Himashaf Pradesh and Jammu & Kashmirs regional unit of the I.N.T.U.C., 1955; toured abroad four times to study the trade union movement; was elected to the Punjab Vidhan Sabha on Congress ticket, 1962; Minister, Punjab, 1962; elected Pres., Punjab P.C.C., 1963; became Pres., Haryana P.C.C., Aug. 1966. Address: Chandigarh.

SHARMA, Dr. B. N. K., M.A., Ph.D., Widyabhushana' (1940); 'Shastranidhi' (1964); Sahitya Akademi Award for Research in Sanskrit, 1963; D. Litt., B'bay Univ. (1968); Sanskrit Scholar; U. G. C. Professor, since June 1969. b. June 9, 1909; Educ.: Kumbakonam & Presidency Coll., Madras. Principal: Sanskrit Colls., Tiruvaiyaru, 1941-49 and Udipi, 1950-51; Visveshvarananda Vedic

Research Instt., Punjab, 1951; Kanara Coll., Kumta, 1952-53; Prof. & Head of Depts. of Sanskrit & Ardhamagadhi, Ruparel Coll., Bombay, 1953-69. Editor, Encyclopaedia of Indian Philosophies; Ph.D. Guide in Sanskrit, Univ. of Bombay. Publications: Nearly 100 papers on many aspects of Sanskrit studies published in Oriental Journals from 1930 to date; Catussutri Bhashya; Svatantraadvaila; A History of Dvaita School of Vedanta & Its Literature, Volume I & II; Philosophy of Sri Madhavacharya; Madhav's Teachings in His Own Words. Address: 4/2, Shah Building, Bhagat Gully, Bombay 16.

SHARMA, Ram Bilas, M.A., Ph.D. (Lucknow), Hindi writer; Prof. and Head of the Deptt of English, B. R. Coll., Agra, since 1943. b. Jan. 16, 1912, in Unnao Dist., U.P.; Educ.: M.A. in English Literature, 1934 and Doctorate, Lucknow Univ., 1940. Lecturer in English, Lucknow Univ., 1938-43. Publications: English: Introduction to English Romantic Poetry; Studies in Nineteenth Century English Poetry: Hindi: Several Critical Studies—Premchand aur unka Yuga; Bharatendu-Yuga; Nirala; San Sattavan Ki Rajyakranti: Bhasha aur Samaj, etc.; Poems: Roopa-Tarangu. Address: 30, New Rajmandi, Agra.

SHASTRI, Pandit Hiralal, Sahitya Shastri, B.A., Pres., Banasthali Vidyapith. b. Nov 24, 1899; Educ.: Maharaja's Coll., Jaipur. Secy., Foreign and Home Dept. Council of State, Jaipur; founded Jiwankutir for village uplift: following the death of his daughter, founded Banasthali Vidyapith, national instt. for girls' educ.; Matri Mandir, Jobner for Welfare of women and children; Navajiwan Kutir, Jaipur, for gen. educ. of the people; "Lokvani," Hindi Daily; Gen. Secy. and Pres., Jaipur Rajya Prajamandal; Gen. Secy., All India States Peoples' Cfce.; member: Constituent Assembly of India; Provisional Parliament of India; first popular Chief Min. Jaipur State and then Rajasthan State; M.P., Lok Sabha from Sawai-Madhopur, 1957-62. Address: P.O. Banasthali Vidyapith, Rajasthan.

SHASTRI, Smt. Ratan, Social Worker; Upadhyaksha, Banasthali Vidyapith (Rajasthan); member, National Council for Women's Education; founded, together with her husband, Banasthali Vidyapith, national inst. for women's educ., following the death of their daughter, 1935; Regional Rep., Kasturba Memorial Trust; member: State Social Welfare Board; Jiwan Kutir, Navajiwan Kutir, and Metri Mandir Mahila Vidyalaya Socs.; State Educl. Adv. Board, State Educl. Grants Cttee. Zonal Cttee., Gandhi Memorial Trust; the first person in Rajasthan to be awarded Padma Shri for distinguished services in the field of educ., 1955. Address: P.O. Banasthali Vidyapith (Rajagthan).

SHELAT, Mr. Justice J. M., M.A. (Lond.), Bar-at-law, Judge, Supreme Court of India, since March 1966. b. July 16, 1908; Educ.: Jubilee Inst., Umreth (Dist. Kaira); Elphinstone Coll., Bombay; London Univ.; called Lothe Bar (Inner Temple, London), 1933. Practised in Bombay High Court, 1933-48; Judge, City Civil Court and Addl. Sessions Judge, Greater Bombay, 1948-54; Principal Judge and Sessions Judge, 1954-57; Addl. Judge, Bombay High Court, Jan.-Nov. 1957; Judge, 1957-60; Judge, Gujarat High Court, 1960-63; Chief Justice, 1963-66. Publications: Akbar; Trial of Gandhi; The Spirit of the Constitution; a contributor to Munshi, His Art and Work. Address: 2, Motilal Nehru Marg, New Delhit

SHETH, Gunendra Lalbhai, B.Sc. (Econ.) (Lond.), I.C.S., Secretary, Deptt. of Defence Supplies, Ministry of Defence, Goyt. of India, since Nov. 20, 1969. b. Nov. 10, 1915; Educ. Gujarat Coll., Ahmedabad;

Univ. Coll., London; London School of Economics, London; Trinity Coll., Cambridge. Started career as Asstt. Collector in Belgaum, 1940; served in several capacities in Ratnagiri Dist., Sholapur Dist., Saurashtra Govt., Bombay Secretariat, Poona Division etc. till he became Revenue Secy., Govt. of Bombay, 1958-60; Secy., P.W. Deptt., Govt. of Gujarat, 1960-62; Secretary, Home Deptt., Govt. of Gujarat, Jan.-Aug. 1963; Jt. Secy., Min. of Defence, Govt. of India, 1963-64; Addl. Secy., Min. of Defence, 1964-68; Special Secy., Min. of Defence, 1964-68; New Delhi.

SHINDE, Annasahib Pandurang, LL.B., Minister of State for Food, Agriculture, Community Devpt. & Co-op., Govt. of India, since March 1967. b. Jan. 21, 1922 at Nasik; Educ.: Law Colls., Poona and Ahmedabad. Courted jail in freedom movement, 1942-44; legal practitioner till May 1962; M.P., Lok Sabha, since 1962; member, Mg. Cttee.: All India Co-op. Sugar Factories Federation, New Delhi; Maharashtra Co-op. Union; Chairman, Federation of Coop. Sugar Factories, Maharashtra State, 1960-62; Parly. Secy., Union Min. of: Food & Agr., 1962-64; Community Devpt. & Co-op., 1964-65; Dy. Min. for Food & Agri., Comm. Devpt. & Co-op., 1966-67; Leader, Indian delegation to: Third session, Afro-Asian Rural Reconstruction Orgn., Seoul, South Korea; 9th F.A.O. Regional Cfee. for Asia and the Far East at Bangkok. Address: 1, Motilal Nehru Marg, New Delhi.

SHIRWADKAR, V. V. alias Kusumagraja, B.A. (Bom.), Marathi Author and Editor; Managing Editor, Kumar (monthly) for children, b. Feb. 27, 1912; Educ.: Nasik; Bombay. Worked on the editorial staff of several Marathi journals in Bombay and Poona; Pres., Maharashtra Sahitya Sammelan, Madgaon, Goa, 1964. Publications: Published the first book of poetry, 1933; and collection of poems 'VISHAKHA', 1944; several books of poetry, drama and fiction, noteworthy among them being Poetry: Kinara, Samidha, Marathi Mati, Swagat. Himaresha; Novels: Janhavi, Vaishnav: Stories: Satariche bol; Plavs: Dusara Peshawa. Kounteya, Doorache Dive, Yayati-Devayani; Adaptations: Vaijayanti; Translations: Kalidas's Meghdoot and Shakespeare's Macbeth and Othello; edits school text books. Address: Shivaji Road, Nasik.

SHIVESHWARKAR, Sadanand Waman, B.Sc. (Bom.), M.A. (Cantab.), M.B.E. (1945), I.C.S., Director-General (Vigilance), Railway Board. b. March 1, 1912; Educ.: Sawantwadi; Fergusson Coll., Poona; Sydney Sussex Coll., Cambridge; Mathematical Tripos at Cambridge Univ. and declared star wrangler, 1932-34; Rayleigh Prize and Sheepshanks Exhibition, Cambridge Univ.; Fellow, Royal Astronomical Soc. of London. Entered I.C.S., 1935; held many posts in the State and Central Govt.s as Under Seey., Dy. Seey., Textile Commr. etc., 1935-47; Adm.or, Junagadh State 1947-49; Chief Seey. Hyderabad Govt., till 1951; Rajasthan Govt., 1951-53; Excise Commr., U.P., 1953-54; Commr., Banaras Dn., 1954-57; Commr., Lucknow Dn., 1957-60; Chief Settlement Commr. and Custodian Gen. of Evacuee Properties, 1960-62; Jt. Seey., Min. of Food & Agr., 1962-64. Publications: Stellar Dynamic and Galatic Rotation (1943). Address: Rail Bhavan, New Delhi.

SHRIMALI, Dr. Kalu Lal, M.A. (Philosophy and Psychology), Ph.D., Vice-Chancellor, Banaras Hindu Univ., since Nov. 1969. b. Dec. 30, 1909; Educ.: Banaras Hindu Univ.; Calcutta Univ.; Columbia Univ., New York. Headmaster, Vidya Bhawan, 1931-42; Principal, Vidya Bhawan Teachers' Coll., 1942-54; member. Secondary Educ. Commn., Indian Govt., 1953; Parly. Secy. to the Union Min. for Educ.; Union Dy. Min. for Educ.,

1955,57 ard Min. of State in the Union Min. of Educ. and Scientific Research, 1957-58; Union Min. of Educ., 1958-63; resigned under the Kamaraj Plan, Aug. 1963; Vice-Chancellor, Mysore Univ., 1964-69. Publications: The Wardha Scheme; Adventures in Education; Education in Changing India; Hindi: Buchon Ki Kuoh Samasyayen, Shiksha Aur Bhartiye Loktantra. Address: Banaras Hindu University, Varanasi 5.

SHRIVASTAVA, Nirmal Chandra, B.Sc., I.C.S., Secretary, Deptt. of Communications; Chairman, P. & T. Board and Dir. Genl., Posts & Telegraphs, Govt. of India, since Nov. 1969. b. Sept. 1, 1913; Educ.: Patwardhan High School and Nagpur Univ.; School of Oriental Studies, London. Joined I.C.S., 1936; Asstt. Commr. and Under Secy., C.P. and Berar Govt. upto Feb. 1942; Under Secy., Dy. Secy. and Dir.-Gen. of Resettlement and Employment, Union Dept. of Labour till Aug. 1947; Dy. Secy., Chief Settlement Commr., Chief Claims Commr. and Jt. Secy., Union Min. of Rehab. upto 1957; Gen. Mgr., Bhilai Steel Plant, 1957-61; Adv. (Industry and Minerals), Plng., Commn., 1961-63; Secy., Min. of Mines & Metals, 1963-69. Address: 34, Prithviraj Road, New Delhi 11.

SHUKLĀ, Shyama Charan, B.Sc. (Tech.) (Banaras), LL.B. (Nagpur), Chief Minister, Madhya Pradesh, since April 1969. b. Feb. 27, 1925 at Raipur; Educ.: Raipur, Banaras and Nagpur. Joint Seey., Raipur D.C.C., 1949-58; Vice-Pres., 1958-64; Vice-Pres., M.P.C.C., 1964; member, A.I.C.C., since 1957; M. P. Vidhan Sabha, 1957, 1962 and 1967 General Elections; Chief Whip, Congress Leg. Party, M.P. Vidhan Sabha, 1963; Min. for Irrigation, 1967; Chief Editor & Founder, 'Mahakoshal', a Hindi daily of Raipur; visited U.K., France, Italy, Iran, Norway, Sweden, Denmark and other countries. Address: Chief Minister's Residence, Shamla Road, Bhopal.

SHUKLA, Vidya Charan, Minister of State in the Ministry of Finance, Govt. of India, since June, 1970. b. in Raipur, Aug. 2, 1929; Educ.: Morris Coll. & Univ. Coll. of Law, Nagpur. M.P., Mahasamund Const. of Raipur Dist. since 1957; rep. the Indian Parly. Group in the meeting of the Commonwealth Parly. Assoc., Singapore, 1964; Indian Rep. at the Afro-Asian Summit Cttee. at Algiers, 1965; was member, Estimates Cttee., 1960-62 and Stg. Cttee. on Administrative Reforms; Dy. Min. for Parly. Affairs & Communications, Jan.-Feb. 1966; member, Cttee. of Media Units of the Min. of I. & B.; has often visited countries of Asia, Africa, America & Europe; Dy. Min. for Home Affairs, 1966-67; Min. of State for Home, 1967-70. Address: 7, Race Course Road, New Delhi.

SIDDIQI, Muhammad Zubayr, H.A. (Punjab), M.A., B.L. (Patna), Ph.D. (Cambridge), first Sir Asutosh Prof. of Islamic Culture, Calcutta Univ., 1929-1961. b. 1896; Educ.: Madrasa Aliya of Rampur (U.P.); Oriental Coll., Lahore; Bihar National Coll., Patna; King's Coll., Cambridge. Member, Senate and Syndicate, Calcutta Univ., 15 years; Fellow and elected Vice-Pres., Asiatic Soc. of Cal., six years; Hon. member, Islamic Research Soc. of Bombay; Pres., Arabic, Persian, Urdu and Islamic Culture Sect., All India Oriental Cfees., Nagpur, Hyderabad and Darbhanga; awarded certificate and robe of honour by the President of India, 1958. Publications: Critical Edition of Firdavsul-Hikmat of al-Tabari, Berlin 1928 and Tarikh Nama-i-Harat of Sayfi Cal. 1944; Al-Sayrul-Hathith-fi Tadwinil-Hadith; Studies in Arabic and Persian; Medical Literature; Hadith Literature, its Origin, Development and Special Features, 1961. Address: P. 6, Suhrawardy Avenue, Calcutta 17.

SIKRI, Mr. Justice Sarv Mittra, Bar-at-Law, Judge, Supreme Court of India since 1964. b. April 26, 1908; Educ.: B.A. (Cantab.), Bar-at-Law (Lincoln's Inn), Started practice, Lahore High court, 1930; Asstt. Advocate-Gen., Punjab, 1949; Advocate-Gen., Punjab, 1951-64; Alternate Rep. of the U.N. Cttee. on Codification and Devpt. of Intn'l Law, 1947; Legal Adv., Min. of Irrigation and Power, 1949; Member: Intn'l Law Assoc.; Cttee. on Intn'l Rivers, 1955; Indian Law Commn., 1955-58; Delegate to World Peace Through Law Cfees., Tokyo, 1961; Athens 1963; Accra Assembly, Accra, Ghana, 1962; Member, Exec. Cttee. and Governing Council, Indian Law Instt., Indian Commn. of Jurists; Indian Branch of Intn'l Law Assoc. Address: 2, Teen Murti Marg, New Delhi.

SINGH, Balbir, B.A., Padma Shri (1957), leading Hockey Player; Jt. Director, Sports and Youth Programme, Directorate of Education, Punjab; President: Cricket Association, Chandigarh; Punjab Cycle Polo Assocn. b. Oct. 10, 1924; Educ.: Dev Samaj High School, Moga (Punjab); Khalsa Coll., Amritsar, Punjab Univ. Entered Class Hockey, 1942; Captain: Punjab Univ. Eleven, 1945, Punjab State Eleven, 1949; represented India in the: World Olympics at London, 1948, won gold medal; Captain, Indian team to: Afghanistan, 1950; Singapore & Malaysia, 1954; all National and International matches, 1947-60; Olympic Games at Helsinki, 1952, won Gold Medal; captained Indian Olympic team to Melbourne Olympic Games, 1956, won Gold Medal; captained the Indian Hockey Team for the Asian Games at Tokyo, May, 1958; member, I.H.F. Selection Cttee., 1959-64. Address: Olympia, 1534, Sector No. 18-D, Chandigarh.

SINGH, Charan, M.A., LL.B., Chief Minister, U.P., since Feb. 16, 1970. b. Dec. 1902, Noorpur, Meerut Dist.; Educ.: Agra Univ. Practised as a civil Lawyer at Ghaziabad, 1928-39; joined Congress, 1929; elected M.L.A., U.P. 1937, '46 and since 1952, from Chhaprauli; courted jail in freedom movement; Gen. Secy. and Pres., Meerut DCC, 1939-46; Genl. Secy., U.P. Leg. Cong. Party, 1948-56; Parli. Secy., U.P. Min. 1946-51; Min. for; Justice and information 1951; Agri. Animal Husbandry and Information, 1951-52; Rev. and Agri. 1952-54; Rev. and Transport, 1955-57; Min. for Rev. 1957-58; Rev., Irrigation and Power, 1958-59; Home and Agri., 1960-62; Agri., 1966-63; Forest and Agri. 1963-65; Forest and L.S.G., 1966-67; leader Samyukta Vidhayak Dal, 1967-68; Chief Minister, U.P., 1967-68; Founder-member, Bharatiya Kranti Dal; Chairman, B.K.D., since 1969; Leader of opp. in U.P. Assembly 1969-70. Publications: Abolition of Zamindari, Cooperative Farming X-rayed and India's Poverty and its Solution etc. Address: Lucknow.

SINGH, Dinesh, B.A., Min. of Industrial Devpt. and Internal Trade, Govt. of India, since June 27, 1970; was Min. for External Affairs, Feb. 1969-June 70. b. July 19, 1925 at Kalakankar, U.P.; Sduc.: Doon School, Dehra Dun; Colvin Coll., Lucknow Univ. P.ivate Secy. to the Prime Minister; Secy.. High Commission of India in London & Embassy of India, Paris; Mem., Estimates Cttee. of 2nd Lok Shabha; Gen. Secy.. Indian Council for Africa; Indian delegate to: U.N. General Assembly, 1960; National Tourist Development Council, 1960-61; Tourist Advisory Cttee. (Northern Zones); travelled extensively in Europe, U.S.A. and Africa; attended the All African People's Conference at Tunis, 1960 and Cairo, 1961; Deputy Min. for External Affairs, 1966-67; Min. of Commerce, 1967-69; elected Pres., U.N.C.T.A.D. Conference, Feb.

1968. Address: Rajbhavan, Kalakankar, Dt. Pratapgarh (U.P.); Ministry of Industrial Development and Internal Trade, New Delhi.

SINGH, Govind Narayan, M.A., LL.B., Ex-Chief Minister, Madhya Pradesh, b. July 25, 1920 at Rampur Baghelan, Dt. Satna; Educ.: Rewa; Banaras Hindu Univ. Selected for I.A.S., but resigned; Lawyer at Rewa 1948-58; elected to the V.P. Assembly, 1952; Pres., Satna D.C.C. for four years; Gen. Seey., V.P.C.C., 1953-57; M.L.A., M.P. since 1957; headed the State Congress Planning Cttee.; member: P.C.C. for 29 years; A.I.C.C. for six years; State Congress Election Board, 1963-67; Dy. Minister: Public Health, Local Bodies and Social Welfare, 1960-62; Home & Planning, 1962-63; Minister for Local Govt. 1963-67; left Congress, 1967; Chief Min., M.P. 1967-Mar. 1969. Publications: Contributed articles to leading magazines as student and lecturer. Address: E. 2/167, Arera Colony, Bhopal.

SINGH, Gur Bakhsh, B.Sc., C.E. (1922), Punjabi Writer. b. April 26, 1895; Educ.: F.C. Coll., Lahore; Themason Coll., Roorkee; Michigan Univ., Ann Arbor (U.S.A.). During the Great War, attached with Royal Engrs.; Rly. Engr., 1925-32; Power Farming, 1932-37; travelled extensively in Europe, Russia, China, U.S.A., Canada, Iraq and Persia; Pres., Sahitya Akademi (Pb.); member, Gen. Council, Sahitya Akademi, India; Vice-Pres., All-India Peace Council. Publications: Autobiography; Shabnam; Adjusted & Balanced Life; Unmarried Mother; The Strange & Alone, etc.: Poem of Life, etc. (In Punjabi). Address: Editor, Precet Lari, Preet Nagar, Dist. Amritsar.

SINGH, Sardar Gurnam, B.A., Barrister-at-Law, Ex-Chief Minister, Punjab State. b. Feb. 25, 1899; Educ.: Forman Christian College, Lahore; called to the bar, 1928. Started legal Practice at Lyallpur; elected Pres., Bar Assoc., 1946 and 1947; started practice at the Punjab High Court, Simla, 1949; Judge: PEPSU High Court, 1950-56; the Punjab High Court, 1956-59; entered politics, 1962; successfully contested election to Punjab Assembly on Akali ticket and elected leader, Akali Party in the Punjab Assembly; played a key role in the formation of the Punjabi Suba; re-elected M.L.A., Punjab 1967 & 1969; Chief Min., 1967-68. Address: H. No. 286, Sector 10-A, Chandigarh.

SINGH, Brig. Gyan, Padma Shri (1961), Leader, first Indian Expedition to Mount Everest, March-June, 1960. b. April 12, 1918 at Ramgarh, Ludhiana Dist.; Educ.: Lucknow. Served in the Kashmir operations including the Zoji La operation; climbed extensively in connection with reconnaissance duties; Principal, H.M.I., Darjeeling, 1958-62; attended Intn'l. Mountaineers' Meets, Chamonix (France) and Rosenlaui (Switzerland); visited mountaineering instts. in Austria, Germany, Belgium and England; promoted Brigadier, Feb. 1960; rctd. from Army, Aug. 1964; Principal, Nehru Instt. of Mountaineering, Uttarkashi, U.P., 1965-68. Publications: Lure of Everest (The story of a first Indian Attempt on Everest in 1960); From Peak to Peak. Address: Sagarmatha Farms, Fazilpur, Moerut.

SINGH, Sardar Hukam, LL.B., LL.D. (Honoris Causa) (Punjabi) (1967), Governor of Rajasthan, since April 16, 1967. b. Aug. 30, 1895 at Montgomery; Educ.: Khalsa Coll., Amritsar; Law Coll., Lahore. Was a prominent member of the Shiromani Akali Dal; member, Shiromani Gurudwara Prabhandhak Ctt.e., 1926-41; was member: Constituent Assembly & Prov. Parliament; Lok Sabha & Estimates Cttee., 1952-1967; Chairman, Confee. of Presiding Officers of Leg. Bodies in India; Pres., Indian

Parly. Group; membere Commonwealth Parly. Cenfee., Delhi, 1957; Australia, 1959; London, 1961; Dy. Speaker, Lok Sabha, 1956-62; Leader: Parly. delegation to USSR and Mongolia, 1962; Commonwealth Parly. Confee. U.S.A. 1963; West Germany and U.K., 1964; Phillippines, 1965; visited Japan, Singapore, Burma, Poland, Canada, U.S.S.R., U.K. and various European countries; Speaker, Lok Sabha, 1962-67; Founder: Spokesman (English Weekly). Publications: Sikh case; The Problem of the Sikhs; Russia as I saw It; Russia Today. Address: Raj Bhawan, Jaipur.

SINGH, Iqbal, Dy. Min., Deptt. of Parliamentary Affairs, and in the Ministry of Shipping & Transport, Govt. of India, since Feb. 14, 1969. b. Oct. 27, 1923, at Killianwali, Punjab; Educ.: M.B. High School, Abohar; Sikh National Coll., Lahore. First Pres., Punjab Students' Congress, 1944-46; member, Working Cttee., All India Students' Cong.; M.P., Lok Sabha, since 1952; member A.I.C.C. since 1954; Dy. Min. for: Petroleum & Chemicals, Govt. of India, 1966-67; Works, Housing & Supply, 1967-69. Address: 24, Akbar Road, New D. lhi.

SINGH, J. J., Secretary, India-Pakistan Conciliation Group; Ex-Pres., India League of America, b. Oct. 5, 1897 at Rawalpindi. Joined N. C. Movement, 1919; elected to: Punjab P.C.C., 1920; A.I.C.C., 1921; elected Vice-Pres., India Me.chants' Assoc., Wembley-London; Founder & 1st Pres., India Chamber of Commerce of America Inc., 1938; elected Treasurer, India League of America, 1939; its elected Pres., 1939-59; devoted all his energies to winning over American support to the cause of India's freedom; successfully worked with the help of Americans for the passing of the India Immigration Bill in 1946; successfully devoted India League's efforts to create better understanding between India and America; was the first Indian to be ever profiled in the "New Yoker"; Chairman, "Committee for a million signatures to ban nuclear tests", 1961; was member, Goodwill Mission to Pakistan, 1964. Address: 101. Friends Colony, New Delhi.

SINGH, Jagjit, M.A., F.S.S., D.Sc. (Honoris Causa) (Roorkee Univ.), Kalinga Award (1963), Chairman, Indian Drugs & Pharmaceuticals Ltd. since July '69; was General Manager, South Eastern Railway. b. May 15, 1912, at Amritsar, Educ.: Hindu Sabha High School and Khalsa Coll., Amritsar; Govt. Coll., Lahore. Represented India at the Third International Fed. of Operational Research Societies Cfce., Oslo, July 1963; Adviser on Operations Research to the Govt. of India, Min. of Home Affairs, Dept. of Adm. Reforms, Sept. 1965; took to science popularisation in 1950. Publications: Some Eminent Indian Scientists; Great Ideas & Theories of Modern Cosmology; Great Ideas of Operations Research, etc.; Technical Papers: Quality Control in Railway Workshops; Operation Research on the North East Fronter Railway and several others. Address: N. 12, South Extension, Ring Road, New Delhi 49.

SINGH, Lt.-Gen. K. Bahadur, P.Sc., I.D.C., N.D.C., Lieut. Governor, Himachal Pradesh, since May 1967. b. Aug. 5, 1910 at Palaitha, Kotah; Educ.: Prince of Wales Royal Indian Military Coll. Commissioned from Royal Military Coll., Sandhurst, Jan. 29, 1931; served in the 4th battalion and the Training Centre of the Kumaon Regt. before World War II; proceeded to the Far East with the 4th Kumaon, 1939; held a number of Staff appointments, including Deputy Secretary (Military) to the Cabinet, and Brigadier, General Staff of a Command; commanded a brigade, and Fourth and Fifth Infantry Divisions; Adjutant General, A.H.O., Sept. 1956-59;

First Commandant, National Defence Coll., 1959-63; G.O.C. in C. Central Command, 1963-67; member, Indian Council of World Affairs. Address: Simla 4.

SINGH, Kewal, B.A. (Hons.), LL.B., I.C.S, Padma Shri, 1955, Ambassador to West Germany since Sept. 1970. b. June 1, 1915; Educ.: Forman Christian Coll., Lahore; Law Coll., Lahore; Balliol Coll., Oxford. Joined I.C.S., 1938; held important positions in Punjab, 1940-48; First Secy. Indian Embassy, Turkey, 1948-49; Indian Military Mission, Berlin, 1949-51; Charge d'Affairs, Legation of India, Lisbon, 1951-53; Consul-Gen. of India, Pondicherry, 1953-54; Chief Commr., the State of Pondicherry, Karaikal, Mahe and Yanam, 1954-57; Amb. to: Cambodia, 1957-58; Sweden, Denmark and Finland, 1959-62; Dy. Indian High Commr. in U.K., 1962-65; High Commissioner to Pakistan, '65-'66; Ambassador to U.S.S.R. & Mongolian People's Republic 1966-68; Secy., Min. of Ext. Affairs, 1968-70. Address: C/o External Affairs Ministry, New Delhi.

SINGH, Khushwant, LL.B. (Lond.), Barrister-at-Law, Editor, Illustrated Weekly of India, since 1969. b. Feb. 2, 1915; Educ.: Modern School, Delhi; St. Stephens Coll., Delhi; Govt. Coll., Lahore; Kings Coll., London; Inner Temple, London. Practising Lawyer, High Court, Lahore, 1939-47; Indian Foreign Service, London & Ottawa, 1947-51; UNESCO, 1954-56; Visiting Lecturer, Oxford, Rochester, Hawaii, Princeton, Swarthmore. Publications: Sikh History & Religion: The Sikhs; Jupji—The Sikh Morning Prayer; A History of the Sikhs, Vol. I & II; Sacred Writing of the Sikhs: Ranjit Singh, Maharajah of Punjab; Sikhs Today; Fall of the Kingdom of the Punjab; Homage to Guru Govind Singh (with Suneet Veer Singh); Hymns of Nanak the Guru; Fiction: Mark of Vishnu and Other Stories; Train to Pakistan; I Shall Not Hear the Nightingale; The Voice of God and Other Stories; A Bride for the Sahib and Other Stories; Translations: Umrao Jam Ada, Courtesan of Lucknow by Mohammed Ruswa (with M. A. Husaini); The Skeleton by Amrita Pritam; Land of the Five Rivers; I Take This Woman by Rajinder Singh Bedi; Non-Fiction: Shri Ram—a biography (with Arun Joshi). Address: "Illustrated Weekly of India", The Times of India Offices, Bombay 1.

SINGH\*, Mr. Justice Mehar, Bar-at-Law, Chief Justice, Punjab and Haryana, since Nov. 1, 1966. b. Aug. 15, 1908; Educ.: F. C. Coll., Lahore; called to the Bar, 1933. Advocate, Lahore High Court, 1933; Judicial service, Faridkot State, Oct. 1935; Judge, High Court, 1943-45; Home Secretary, 1945-46; Chief Secy., 1946-47; Chief Justice, 1947-48; Dist. and Sessions Judge, PEPSU, 1948-51; Secy. to Govt., Law Deptt. and Legal Remembrancer, and also Secy. to Govt., Education and Health Deptts., 1953; Judge, High Court, 1953-56; Judge, High Court, Punjab, 1956-66; Acting Chief Justice, 9th to 28th May, 1966; Chief Justice, Punjab, May to Oct. 1966; Ag. Governor: Punjab & Haryana, June to Sept. 1967; Punjab, Sept. to Oct. 1967. Address: 241, Sector 9-C, Chandigarh.

SINGH, Milkha, Padma Shri, 1960, Leading sportsman; Dy. Director of Sports, Punjab. b. 1935. Started his career, 1953; specialised in 400 metres race; came first in the Indo-Pakistan meet at Delhi, 1956; selected for the World Olympic Games at Melbourne, 1956; won gold medals in 200 & 400 metres in III Asian Games at Tokyo; and in 440 yards in British Empire and Commonwealth Games, Cardiff; stood fourth in Olympics, Rome, 1960; also in the fourth Asian Games at Djakarta and won Gold medals for 400 metres, and 4 × 4 relay; is the holder of

Helma Award. Address: Deputy Director of Sports (Coaching), Sports Department, Kothi No. 561, Sector 18B, Chandigarh.

SINGH, Mohan, M.A., M.O.L. (1933), Punjabi poet; Mg. Dir., Hind Publishers Ltd., Jullundur. b. Oct. 20, 1905; Educ.: Oriental Coll., Lahore. Started the Panj Darya at Lahore, 1939; Head of Persian and Punjabi Deptt., Sikh National Coll., Lahore, 1940-44; member: Adv. Board for Punjabi, Sahitya Akademi; Gen. Council, Sahitya Akademi, Delhi; first fellow, Punjabi Sahitya Akademi, Ludhiana, 1966; Punjab Govt. Award, 1967; JAIMIR (Soviet Land Nehru Award, 1968); Sahitya Akademi's National Award, 1960. Publications: Sawe Pattar, Kasunbra, Adhwate, Asia Da Chanan, Kach Sach, Awazan, Niki Niki Washnan (short story), Wadda Wela 1958, Jandre. Address: Civil Lines, Jullundur.

SINGH, Dr. Nagendra, M.A., LL.D. (Cantab), D.Sc. (Law) (Moscow), D.C.L. (Delhi), M.A., B.Litt., LL.D. (Dublin), D.Litt. (Bihar), D.Phil. (Cal.), Bar-at-Law, I.C.S., i.d.c., J.P., Secretary to the President of India since December 5, 1966. Joined I.C.S., 1938; worked in the Ministries of Defence, I. & B., States (Home) and Transport, D.G.S. and Secy., Transport Min. (1956-66); Member: Constituent Assembly of India (1947-48); Permanent Court of Arbitration, The Hague (1967); Governing Council, UNIDROIT, Rome; Vice-Pres.: International Law commission (1967); UNCITRAL (1969); Pres., IMCO Assembly (1963-65); Nehru Professor, Geneva Univ.; Shri Panch Tribhuvan Prof., Tribhuvan Univ., Nepal; Visiting Prof., Univs. of Madras, Bombay, Delhi, Banaras and Udaipur. Publications: Termination of membership of International Organisations; Nuclear Weapons and International Law; Defence Mechanism of the Modern State; India and International Law; Achievements of UNCTADI&II in the Field of Invisibles; Human Rights and International Cooperation, etc. Address: 3, Willingdon Crescent, President's Estate, New Delhi.

SINGH, Colonel Raja Surendra, Chairman, State Farms Corpn. of India Ltd. and former Ruler of Nalagarh State in the Punjab. b. 1920; Educ.: Aitchison Coll., Lahore. Had adm.ive. trg. with the Punjab Govt. and held appt.s in the Police, Revenue, Judicial, Public Health and Forest Deptts.; joined the Indian Army and served with the Dogra Regt.; succeeded to the Gaddi 1946; elected M.L.A., PEPSU, in both the General Elections; apptd. Min. for Fin., Plng. and Devpt.; Indian Adv.: Min. of Food & Agri., 1958-62; Colonization, Min. of Home Affairs, 1962; Programme Admp, and ex-officio Addl. Secy., Plng. Commn., 1962-66; led the Indian Agrl. Machinery Delegation to Russia, 1966; Dir.-Genl., State Farms and ex-officio Addl. Secy., Min. of Food & Agri., Govt. of India, 1965-69. Address: 10, Teen Murti Lane, New Delhi 11.

SINGH, Dr. Ram Subhag, Shastri (Banaras), M.A. (Missouri), Ph.D. in Journalism (Missouri), Leader of Opposition in Lok Sabha, since Nov. 1969. b. July 7, 1917; Educ.: Sri Kashividyapith, Varanasi; Missouri Univ.; Columbia, U.S.A. Member, Prov. Parliament, 1950-52; M.P., Lok Sabha, since 1952; member: Exec. Cttee. of the Cong. Party in Parliament, since 1954 and its Secy., 1955-62; Cong. Wkg. Cttee., since Jan. 1961; Cong. Central Election Cttee., since May, 1966; Leader, Indian delegation to: 8th Session of the Intril. Rice Commn. and sixth F.A.O. Regional Cfce. at Kuala Lumpur, 1962; Anglo-Asian Rural Reconstruction Cfce., Kuala Lumpur, 1964; Union Min. of State for: Agr., 1962-64; Railways,

1964-67; Min. for Parl. Affairs & Communications, 1967-69; Min. of Rlys., Feb.-Nov., 1969; travelled extensively in U.S.A., Canada, U.S.S.R., West Asia and South-East Asia. Address: Khajuria, Arrah (Bihar); 12, Janpath, New Delhi.

SINGH, Sachindra Lal, Chief Min., Tripura, since July 1, 1963. b. 1907, in Agartala; Educ.: U.K. Academy, Agartala; Victoria Coll., Comilla. Often courted jail in his fight against British Imperialism and the monarchy in Tripura; externed from Tripura and detained by the British Govt. for his revolutionary activities; after release, founded "Tripura Rajya Gana Parishad" and the Tripura State Congress Cttee.; was Pres. for about 10 years; was again externed for his land reform movement; Adv. to the Chief Commr., Tripura, 1953-57; elected Chairman, Territorial Council, 1957; Chairman, Wild Life Advisory Board; Pres.: Bharat Sevak Samaj, Tripura Br.; Harijan Sevak Sangha. Address: Agartala.

SINGH, Prof. Sher, M.A., Minister of State for Information & Broadcasting and Deptt. of Communications, Govt. of India, since Feb. 14, 1969. b. Sept. 18, 1917; Educ.: Delhi Univ. Elected M.L.A., Punjab, 1946-62; M.L.C., 1962-66; Parliamentary Secy., Punjab, 1948-51; Dy. Leader, Cong. Party in Punjab Leg. & Min. of Irrigation and Power, 1956-57; Founder-Pres., Harvana Lok Samiti; advocated a separate State for Haryana people; worked for Harijan Welfare; attended the World Disarmament and Peace Cfce., in Moscow, 1962; visited U.S.A., under the Leaders' Exchange Programme, 1965; has travelled extensively all over the world; led Indian Delegation to the Intellectual Property Conference, Stockholm, June-July 1967; Min. of State, Min. of Educ., Govt. of India, 1967-69. Publications: Roos Yatra; Haryana Aaj aur Kal. Address: Ministry of Information & Broadcasting, Govt. of India, New Delhi.

SINGH, Surendra Pal, B.A. (Hons.) (History), Deputy Minister of External Affairs, Govt. of India, since March 18, 1967. b. May 17, 1917; Educ.: Col. Brown's School, Dehra Dun; Cambridge Univ., England. Commissioned Officer in the Indian Armoured Corps. 1940-43; actively co-operated with the National Extension Service Scheme of the Govt.; donated funds for the building of Schools and Hospitals and roads in the rural areas of his home Dist.; M.P., Lok Sabha, since 1962; Member, Public Accounts Committee, 1965-66; travelled widely all over Western Europe, 1935-40 and 1951. Address: Unchagaon Estate, Dist. Bulandshahr (U.P.); External Affairs Ministry, New Delhi.

SINCH, Sardar Swaran, B.Sc. (Hons.), M.Sc., (Physics) (Lahore), LL.B., Min. for External Affairs, Govt. of India, since June 27, 1970; Ex-Min. for Defence, Nov. 1966-June '70: ex member, Plng. Commn. b. Aug. 19, 1907; Educ.: Govt. Coll., Lahore. Elected M.L.A., Punjab, 1946; Min. for Devpt., Food & Civil Supplies, Punjab; Min. for: Home, Gen. Admn., Revenue, Irrigation, Electricity, Punjab, 1947; Capital Project, Electricity, April-May, 1952; Works, Housing, Supply, 1952-57; led the Indian delegation to the sessions of the Eco. Social Council of the U.N., at Geneva, 1954, 1955; elected to the Lok Sabha; Min. for: Steel, Mines and Fuel, 1957-62; Food & Agr., 1963-64; Industry & Supply; visited Nepal, Aug. 1964, Burma, Sept. 1964; attended the Cfcc. of Foreign Mins. of non-aligned countries, Oct. 1964; leader, Indian delegation to U.N., Gen. Assembly, Dec. 1964, in Oct. 1965 and Oct. 1967; Goodwill visits to: Kenya, Uganda, Ethiopia & U.A.R. (1965): accompanied Prime Minister to: U.S.S.R., Yugoslavia & Burma

(1965); assisted Prime Minister Shastri in Tashkent talks with Pres. Ayub Khan of Pak., Jan 1966; visited: U.S.S.R. Oct. 1967 & Sept. 1968; Baghdad on invitation, Feb. 1968. Address: 7, Hastings Road, New Delhi.

SINGH, Tribhuvan Prasad, B.A. (Hens.) (Econ.), M.A., I.C.S., Secy. to the Govt. of India, Dept. of Rev. & Exp. since April 1965. b. May 9, 1913; Educ.: Patna Univ.; London School of Economics. Joined the I.C.S., 1937; was posted to Bihar; held assignments mostly on the developmental side; Secy., Deptt. of Supply and Secy., P.W.D. 1946-49; Commr. of Patna and Tirhut Divns., 1949-53; Chief Admstr., River Valley Projects, Bihar, 1954-63; Addl. Secy., Plng. Commn., 1963-64; Secy. to the Govt., Dept. of Revenue & Expenditure, 1965-1968; Fin. Secy., 1968-69. Address: C/o Ministry of Finance, North Block, Secretariat, New Delhi; Permanent: Mohalla Sheikhpura, Patna Town, Bihar.

SINGH DEO, Rajendra Narayan, Maharaja of Patna State, since Feb. 1933 and Chief Minister, Orissa, since March 8, 1967. b. Mar. 31, 1912 at Seraikela; Educ.; Mayo Coll., Ajmer; St. Columbia's Coll., Hazaribagh. Was member, Chamber of Princes and Vice-Pres., Council of Rulers of the Eastern States Agency; was Chief Patron, 5th All Indian Cultural Unity Confee.; formed a new party called Ganatantra Parishad, 1949, which merged with the Swatantra Party after the 1962 Parliamentary election; was elected to the Lok Sabha, 1952; elected M.L.A., Orissa, since 1957; Lead.r of the Opposition in the Assembly, 1957-59; Dy Leader and Finance Min., Ganatantra Parishad-Congress coalition Govt., 1959-61; leader of the Opposition, 1961; Pres., Orissa Unit of the Swatantra Party; member, Gen. Council, National Exec. and Central Parly. Board, Swatantra Party. Address: Bhubaneswar I.

SINGHANIA, Lakshmipat, Industrialist and Vice-Pres., J. K. Organisation. b. Nov. 23, 1910. Started business career at age of 20; Director-in-Charge: Aluminium Corporation of India Ltd.; The Straw Products Ltd.; Chairman: The Ganges Manufacturing Co. Ltd.; J. K. Steel & Industries Ltd.; Pres., The National Insurance Co. Ltd.; Director: J. K. Cotton Spinning & Weaving Mills Co. Ltd.; Nav Bharat Vanijya Ltd.; Bengal & Assam Investors Ltd.; J. K. Industries Private Ltd.; J. K. Iron & Steel Co. Ltd.; International Cardiology Foundation, etc. etc.; one of the Indian Underwriting members, Lloyd's Society of London; member, Board of Governors, Indian Institute of Social Welfare & Business Management; Vice-Pres., All India Heart Foundation; Ex-President: F.I.C.C. & I.; Indian National Cttee. of the I.C.C.; All India Organisation of Employers; Bharat Chamber of Commerce; Merchants' Chamber of U.P.; travelled extensively around the world several times; takes active interest in public affairs, social welfare and charitable institutions. Address: (Office) 7, Council House Street, Calcutta 1; (Resi.) J. K. House, 12, Alipore Road, Calcutta 27.

SINGHANIA, Sir Padampat, LL.D. (Kanpur Univ.) (1969), Industrialist and business man. b. 1905. Pres. J. K. Organisation; founded Merchants' Chamber, U.P., 1932; ex-Pres., F.I.C.C.I.; Vice Pres., Seva Samiti, Allahabad; was member: U.P. Leg. Assembly; Constituent Assembly; First General Council of U.P. Assoc. for Blind; Indian Institute of International Affairs; Heavy Industries Adv. Cttee.; Chairman, Board of Governors, Indian Institute of Technology; established: J. K. Institute of Applied Physics and Technology, Allahabad; J. K. Institute of Sociology and Human relations,

Lucknow; J. K. Institute of Radiology and Cancer Research, Kanpur. Address: Office: Kamla Tower, Kanpur; Resi.: "Ganga Kutir", Cantonment, Kanpur.

SINHA, H.E. Rajkumar Raghunath, of Sitamau, M.A. (Cantab.), Bar-at-Law, I.F.S., High Commissioner to Uganda and concurrently Ambassador to Rwanda and Burundi, since Aug. 1968, b. Dec. 6, 1912; Educ.: St. John's Coll., Agra; Magdalene Coll., Cambridge; Lincoln's Inn, London; Research Scholar, Cambridge; Lincoln's Inn, London; Research Scholar, Cambridge; Univ. After serving Sitamau and Alwar States, joined the I.F.S., 1948; was posted as First Seey., Indian High Commn., Lond. and then in the Indian Embassy, Addis Ababa, Ethiopia; Indian Govt. Trade Commr. in Karachi, 1952; Consul-Gen. of India in Egypt; Consul-Gen. of India for the Western States of the United States, San Francisco; Indian Amb. to: Cambodia; Netherlands, July 1963-July 1966; Amb. to Guinea & Mali, 1966-68. Address: High Commission of India, Bank of India Building, Kampala Road, Kampala.

SINHA, Safya Narayan, Minister of Information, Broadcasting and Communications, Govt. of India, since Feb. 14, 1969. b. 1900, at Darbhanga (Bihar); Educ.: Patna. Courted jail in the freedom movement; member: Bihar Legislative Assembly, 1926-30; Indian Constituent Assembly; was Chief Whip, Congress Party in the Central Assembly and Constituent Assembly; Min. of State for Parly. Affairs, Govt. of India, 1949-62; elected M.P., Lok Sabha, since 1952; Min. of: Parly. Affairs, 1962-64; I. & B., 1963-64; Communications and Parly. Affairs, 1964-67; appointed leader of the Lok Sabha, Feb. 1966; Min. without portfolio, March-Nov. 1967; Min. for Health, Family Planning & Urban Devpt., 1967-69. Address: 19, Akbar Road, New Delhi.

## SIVAJI GANESAN (See under GANESAN, Sivaji).

SIVASAILAM, A., B.Com., Business man; Chairman, Amalgamations Pvt. Ltd., Madras and Chairman & Mg. Dir., Tractors & Farm Equipments Ltd., Madras. b. Aug. 24, 1934; Educ.: Madras and London. General Manager, TAFE, since 1961; member: Development Council for Automobiles, Automobile Ancillary Industries, Transport Vehicle Industries, Tractors, Earthmoving Equipment and Internal Combustion Engines, Govt. of India; Local Board (Southern Area), Reserve Bank of India; Court of Governors, Adm. Staff Coll. of India, Hyderabad; is Fellow, Institute of Directors, London; member, General Cttee., Madras Chamber of Commerce; Sheriff of Madras, 1969-70. Address: 202, Mount Road, Madras 2.

SOMANI, Gajadhar, Industrialist and Millowner.
b. April 1908; Educ.: Shree Vishudhanand Vidyalaya,
Calcutta. Twice M.P.; Ex-Chairman, Bombay Millgwners' Assoc.; was Pres., All-India Org. of Industrial
Employers, New Delhi for four years; ex-Pres., Rajasthan Chamber of Commerce & Indus., Jaipur; is on the
Exec. Cttee., F.I.C.C. & I., New Delhi; was on the Exec.
Cttee.: Mill Owners' Association, Bombay; Indian Cotton
Mills' Fed., Bombay; Ex-Pres.: Cement Mfrs.' Assocn.;
Indian Merchants' Chamber, Bombay, 1963-64; Dir. of many
companies; is connected with many religious, social and
educl. instts.; served on Parly. Consultative Cttees. i.e.
of the Ministries of Fin., Commerce & Indus., Labour &
Employment; Chairman, Textile Mills Stg. Adv. Cttee. to
go into the working on uneconomic and sick units in the
industry. Address: Shreeniwas House, Waudby Road,
Fort, Bombay I.

SOMASUNDARAM (Somu), M. P., Vidwan (Madras Univ.), Tamil poet and short story writer; Chief Producer, Features for the Southern Regions, A.I.R. b.

June 17, 1921; Educ.: M. D. T. Hindu Coll., Tirunelveli. Is popularly known by his pen name 'Somu'; Editor, Kalki—Tamil Weekly, 1954-56; awarded several prizes like the Bharati Gold Medal, 1938, the first prize in the All-India Tamil Short Story competition, 1940, Sahitya Akademi Award for his travel Book, 1963, etc.; deputed from the Infor. & Broadcasting Min. to the B.B.C., 1960; knows Sanskrit, Hindi, Malayalam. Publications: Several volumes of short stories, poems, essays, novels, a travelogue and books on Tirumular & Mudal Alwar. Address: C/o AIR, Madras 4.

SORCAR, Pratul Chandra, F.R.A.S. (Lond.), Padma Shri 1964, Magician; J.P., Calcutta. b. Feb., 23, 1913, at Tangail, East Pakistan; Educ.: Calcutta Univ. Took to magic at an early age; won the "Sphinx" Gold Award (the 'Nobel Prize' of Magic) from New York twice; hailed as "World's greatest Magician" in Germany & awarded Royal Medallion & the Golden Laurel; Hon. Member of the very exclusive Magicians' Club, Tokyo; Pres., All-India Magic Circle, Calcutta; cycled on Place de l'Opera. Paris, blindfolded and hooded, 1950; Calcutta, 1936; Times Square, New York City, 1957; at World Magic Convention (Chicago), 1950; has had long shows in several countries. Publications: 16 works on magic and allied subjects in English, Hindi and Bengali. Address: "Indrajal," 276/1, Rash Bihari Avenue, Calcutta 19.

SPASOWSKI, H.E., Mr. Romuald, Ambassador of the Polish People's Republic to India & concurrently accredited to Ceylon, Nepal and Singapore. b. 1920; Educ.: Warsaw Univ. Joined the army, 1945; Deputy Chief of the Military Mission in Germany, 1946-48; Consul in Dusseldorf, 1948-49; Head of section at the Foreign Ministry, 1949-51; First Secy., Polish Embassy in London, 1951-53; Polish Envoy in Buenos Aires, 1953-55; Ambassador in Washington, 1955-61; Director of Asia and Africa Deptt., Foreign Ministry; Ambassador-atlarge since 1963; Polish Commissioner, International Commission for Supervision and Control in Saigon, 1963-64; Director of Asia and Africa Deptt. at the Foreign Ministry, 1964-67. Address: 22, Golf Links, New Delhi 3.

SREENIVASULU, K., Diploma in Fine Arts (First Class), Painter; Officer in Charge, Design Demonstration Centre, Egmore, Madras. b. Jan. 6, 1923; Educ.: School of Arts, Madras. Artist: won the President's Award for the best picture of the year 'Lotus Garland', 1953; displayed his works in U.S.A., U.S.S.R., China, Japan, Philippines and Australia; representative of the Lalit Kala Akademi to all India Council of Technical Education in Applied Art; member: Exec. Board, Madras State Lalit Kala Akademi; Cttee. for Purchasing Art Works, National Art Gallery, Madras; Gen. Council of the Lalit Kala Akademi, New Delhi, since 1967. Address: 8, III Main Road, Bhaktavatsalam Nagar, Adyar, Madras 20,

SRI KRISHNA, Dr., C.I.E. (1942), Ph.D., Sc. (Lond.), F.N.I., Scientist. b. July 1896, at Lahore; Educ.: Punjab Univ.; D.S.I.R. (England) Research Scholar, 1919-21; Queen's College, London; King's College, London. Reader in Organic Chemistry, Punjab Univ., 1925; Foundation Member, National Institute of Sciences, India, 1937; Pres., Chemistry Section, Indian Science Congress, 1940; Vice-Pres., Forest, Research Institute & Colleges, Dehra Dun, 1947; its Dir. of Forest Research, 1948-50; Leader, Scientific Delegation to Australia, 1948; Dy. Dir., C.S.I.R., New Delhi, 1952-53; Scientific Adviser & Scientific Liaison Officer, Indian High Commission, London, till 1959. Publications: Over

a hundred publications, mainly on plant products. Address: 62, Perryn Road, London, W. 3; 88, Rajpur Road, Dehra Dun, U.P.

SRINIVASAN, Mysore, B.E., M.I.E.(Ind.), F.A.S. C.E., M.A.R.E.A., F.M.I.R.T., I.R.S.E., Director General, Research, Designs & Standards Orgn., Min. of Railways, since 1968. b. March 24, 1916; Educ.: Bangalore. Entered the Indian Rly. Service of Engineers, 1940; starting as Asstt. Exec. Engineer in 1940 rose to the position of Chief Engineer, 1962; held posts of Jt. Dir., Jt. Secy., Dir. on Spl. Duty (Concrete Sleepers); Dir., Efficiency Bureau; Dir., Rly. Planning, Min. of Rlys. (Rly. Board); with India Store Deptt., London and India Supply Mission, Washington, 1954-58. Publications: Modern Permanent Way and several technical articles to Technical Journals. Address: Director General, Research, Designs & Standards Organisation, Alambagh, Lucknow 5.

SRI RAM, Nilakanta, B.A. (Madras), Pres., Theosophical Society. b. Dec. 15, 1889; Educ.: Madras. Worked with Dr. Annie Besant on her newspaper, New India, 1919-20 & 1923-32; was on the Leader staff, 1922-23; has been Secy., Treasurer and Vice-Pres., Theosophical Soc.; elected intn'l. Pres., Feb. 1953; has travelled abroad, lecturing and writing. Publications: Thoughts for Aspirants, An Approach to Reality, A Theosophist Looks at the World, The Human Interest, Man, his Origins and Evolution, Life's Deeper Aspects, Seeking Wisdom, etc. Edits the monthly Theosophist. Address: Adyar, Madras 20.

SRIVASTAVA, Bishwambhar Nath, M.Sc., D.Sc. (Alld.), F.N.I., F.N.A.Sc., F.P.S. (London), Scientist; Prof. of Gen. Physics, Indian Assoc. for the Cultivation of Sc., Jadavpur, Calcutta, since 1953. b. Aug. 23, 1905; Educ.: Jaunpur, Allahabad and Oxford Univ. Fellow, Nat. Instt. of Scs. of India, 1946; awarded Educ. Minister's gold medal by the Nat. Academy of Scs. of India, 1950; elected: Recorder of Physics Sect., Indian Sc. Cong., 1953; Fellow of Physical Soc., London, 1963. Publications: Author (jointly with Prof. M. N. Saha) of Treatise on Hett, etc. Address: Indian Association for the Cultivation of Science, Calcutta 32.

SRIVASTAVA, Chandrika Prasad, M.A., LL.B., L.A.S., Chairman & Mg. Dir., Shipping Corpn. of India Ltd., Bombay, since March 3, 1966; Chairman, Mogul Line Ltd.; Director: Central Inland Water Transport Corpn. Ltd.; Pres., Institution of Marine Technologists, B'bay. b. July 8, 1920; Educ.: Lucknow & Allahabad. Dy. Secy. to Govt. of India, 1957-58; Senior Dy. Dir. General of Shipping, 1959-60; Mg. Dir., Shipping Corpn. of India, 1964-66; duly accredited representative to Maritime Conferences at U.S.A., Geneva, Ceylon, London; Member: National Shipping Board, Merchant Navy ming Board, Board of Control of Jayanti Shipping Co., Ltd., Governing Cuncil of the Assoc. of Public Enterprises and several other Govt. bodies; visited U.K., USA, USSR, France, Germany, Italy, Norway, Poland, Yugoslavia, Czechoslovakia, Switzerland, Canada, Japan and Australia. Address: "Steelcrete House", Churchgate, Bombay 20.

SRIVASTAVA, J. K., B.Sc. Tech. (Manch.), A.M.-C.T., A.T.I. Ex-M.L.A., Chief Business Exec., Sir J. P. Srivastava Group of Industries. b. Nov. 13, 1913; Educ.: Grimes Tutorial School; Coll. of Tech., Univ. of Manchester. Pres., Upper India Chamber of Commerce, 1957-60; Vice Pres., Employers' Fedra. of India; Member: State Plng. Board, U.P.; Export Promotion Adv. Council,

Govt. of India; Indian Cotton Mills Federation; Exec. Cttee., All India Board of Tech. Studies in Management; U.P. Leg. Assembly, 1945-52; Cttee., Cotton Adv. Board, Govt. of India and numerous Govt. and Pvt. bodies; Chairman: Northern Regional Cttee., Employers' Fed. of India; Governing Council, Northern India Textiles Research Assoc.; Leader, Indian Delegation, Intnl. Org. for Stdn., U.S.A., 1952. Address: Kailash, Nawabganj, Kanpur.

SRIVASTAVA, Mahabir Prasad, M.A., B.A. (Hons.), LL.B., I.A.S., Chief Secretary to M.P. Govt., since Sept. 1968. b. June 6, 1912; Educ.: Allahabad Univ. Held important positions in Central India, Panna and Vindhya Pradesh, 1943-56; Home Secy., M.P. Govt., 1956-61; Commissioner: Bhopal Divn., 1961-62; Indore Division, 1962-68; Addl. Chief Secy., M.P. Govt., May-Sept. 1968. Address: Chief Secretary to Madhya Pradesh Govt., Bhopal.

SUBBARAO, Rayaprolu, Sahitya Sthapaka, 1947, D.Litt. (Hon. Causa) by Osmania Univ. (1966), Telugu Poet. b. March 1892; Educ.: Nizam Coll., Hyderabad; Santiniketan. Head, Telugu Deptt., Osmania Univ. 1921; S. V. Univ., 1956-59; Principal, Univ. Coll., Warangal, 1948-50; Pres., the All Andhra Poets and Pandits Cfce., Rajahmundry, 1934; Jt. Pres., Hyderabad Telugu Academy, 1950; member: Sahitya Akademi Executive. Publications: Lalita, Poetie work; Thrinakankan, purely ric; Kashtakamal; Swapna Kumar; Telugu Tota; Sneha Lata; Jada Kuchulu; Andhravali; Vanamala; Ramya Lekum: Madhuri and Kanne Patalu (verses and songs); Roopa Navanitam (Drama); Translations: Megha Doota & Uttara Ramacharita (1959), Sakuntala (1964), Rabindra's Literary Essays Vol. II, Vivekananda (Romain Rolland); Sundarakanda of Valmiki. Address: Lalita Kutir, 44, Nehru Nagar, Secunderabad.

SUBBIAH, K. V., B.A., Minister for Religious Endowments and Housing, Govt. of Tamil Nadu, since Feb. 1969. b. May 11, 1922; Educ.: State Elementary School, Alangudi; Brahadambal High School, Pudukottai; Rajah's Coll., Pudukottai; St. Joseph's Coll., Tiruchirapalli. Was Special Revenue Inspector, Revenue Deptt., Madurai Dist. for 10 years; jailed during the Anti-Hindi agitation; was Vice-Pres., Co-operative Marketing Society, Alangudi; elected to State Assembly from the Alangudi Constituency, 1967. Address: "Anbu", Greenways Road, Adyar, Madras-20.

SUBBIAH, Varadarajalu Kailasa, Minister for Health & Agri, Pondicherry, since March 1969. b. Feb. 7, 1911; Educ.: Calve Coll., Pondicherry. Joined the National Liberation Movement, 1930; deputed to France for political discussions, 1937; courted arrest in the free-dom movement; exiled by the French for over one and half years from 1944; represented Pondicherry in the French Parliament, 1946-49; member, Pondicherry Assembly, since 1946; was Leader of the Opposition and Chairman, P.A.C. in the Assembly; widely travelled in France, U.S.S.R. and other West and East European countries; member: Exec. Cttee., Tamil Nadu and National Council, C.P.I.; Working Cttee, A.I.T.U.C. Publications: Freedom Struggle in French India. Address: 7, Vellala Street, Pondicherry.

SUBBULAKSHMI, Smt. Madurai Shanmugavadivu, Padma Bhushan (1954), President's Award for Karnatic Music (1956), Doctor of Literature by the Rabindra Bharati Univ. for her contribution to Karnatic Music, Jan. 1967, 'Sangita Kalanidhi' in 1969, Classical Karnatic Musician, b. Sept. 1916; Educ.: Learnt music from her mother. Gave solo performance and became a leading musician before 18; her part as heroine in the Hindi film "Meera" won for her all India popularity; has given more than a 100 benefit recitals in aid of many national, social and religious causes; represented, Karnatic Music in the Edinburgh Intn'l Festival of Arts, 1963; also gave concerts in London, Frankfurt, Geneva and Cairo; special concert before U.N. Assembly on U.N. Day (Oct. 23, 1966) on invitation; 7-week concert tour in the U.S.A., Oct.—Nov. 1966; had private audience with Pope, Dec. 3, 1966; first woman musician to be elected Pres. of the Madras Music Academy Confee., 1968. Address: "Kalki Buildings", Chetput, Madras 31.

SUBRAMANIAM, C., B.A., B.L. (Madras), Ex-Minister of Food, Govt. of India; was Pres., Tamilnad Cong. Cttee., 1967-69; Chairman, Aeronautics Cttee. b. Jan. 30,1910, at Pollachi, Coimbatore Dist.; Educ.: Coimbatore and Madras. Started practice in Coimbatore, 1936; courted jail in the freedom movement; was Pres., Coimbatore D.C.C.; member: P.C.C., A.I.C.C.; Wkg. Cttee., Tamilnad Cong.; member, Constituent Assembly, 1946-52; M.L.A., Madras, 1952-62; Fin., Educ. and Law Min., Madras till 1962; M.P., Lok Sabha 1962-67; Union Min. for: Steel & Heavy Industries, 1962-63; Steel, Mines & Heavy Engg., 1963-64; Food and Agr., 1964-66; Food, Agr., Com. Devpt. and Co-op. 1966-67; visited the U.K. and the Continent, 1960, Russia, U.S.A., Canada, Japan and Singapore, 1961, U.S.A. and Australia, 1965; led Indian Delegation to the F.A.O. Regional Cfce. at Manila, 1964; Rome, 1965. Publications: Two travelogues in Tamil; Countries I have visited and Round the World and numerous articles. Address: River View, Guindy, Madras 25.

SUBRAMANIAM, T. A., B.A. (Hons.), Mg. Editor, The Mail, Madras, since 1966. b. May 21, 1911; Educ.: Victoria Coll., Palghat; Christian Coll., Calicut; Annamalai Univ. Apprentice, The Times of India, Bombay, 1933; Sub-Editor, Chief Sub. and Ag. News Editor, The Mail, 1934-42; Chief Sub. and Asstt. Editor, The Statesman, Calcutta, 1943-60; Editor, The Mail, 1960-66. Address: 2, Rajasekhara Mudaliar Road, Madras 4.

SUBRAMANYAN, K. G., Diploma in Fine Arts (Viswabharati), Painter; Prof. of Painting and Dean, Faculty of Fine Arts, Baroda. b. Feb. 15, 1924; Educ.: Presidency Coll., Madras; Kalabhawan, Viswabharati, Santiniketan; Slade School of Art, London. Lecturer in Fine Arts, Baroda Univ., 1951–58; Dy. Dir. (Designs), All India Handloom Board, 1958–61; member: All India Handicraft Board; Lalit Kala Akademi; Reading in Painting, Faculty of Fine Arts, Baroda, 1961–66; oneman shows in: Delhi, 1955, 1958, 1962, 1968, New York, June 1967, Bombay, 1957, 1960 & 1967; participated in many intn'l. exhibitions; received medallion of honourable mention in the Sao Paolo Bienniale, 1961 & National award, 1965; won Gold Medal, First Indian Triennale. Address: Faculty of Fine Arts, Pushpa Bagh, Baroda.

SUKHADIA, Mohanlal, L.E.E. (Bombay), Chief Min., Rajasthan, since Nov. 13, 1954. b. July 31, 1916; Educ.: Nathdwara (Udaipur) and Bombay. Interned during 'Quit India Movement'; Min. for Civil Supplies, P.W.D., Relief & Rehab., Mewar State; was Devpt. Min., Rajasthan; M.L.A., from Udaipur City constituency; Min. for Civil Supplies and Agr. incl. Irrigation, Rajasthan, 1951-52; Min. for Agr., Revenue (except Forests and Co-op.), and Famine Relief, 1952-54; responsible for the land reforms and Panchayati Raj in the State. Publications: Our Administrative Problems; Articles on political, eco. and social subjects. Address: 8, Civil Lines, Jaipur.

SUMATI MORARJEE, Smt., Ex-Chairman, Indian National Shipowners' Assoc. b. March 13, 1909; Educ.: Privately. Dir.: Mg. Cttee., The Scindia Steam Navigation Co., Ltd.; Kamal Shipping Co., Ltd.; Jalanath Ins. Ltd.; The Eastern Bunkerers Ltd.; Narottam & Pereira Ltd.; Member: Sea Cadet Council; All India Handicraft Board; Regional Handicrafts Design Centre; Tourist Development Council; Nat. Shipping Board; Merchant Navy Trg. Board; Export Promotion Council; Dy. Chairman, Lloyds India Cttee.; Vice-Chairman, Maritime Law Assoc. of India; Vice-Pres., International Shipping Federation. Address: Palm Bun, Gandhigram, Juhu, Bombay 54.

SUNDARAM, Tribhuvandas Purushot'amdas Luhar, "Bhasha Visharad" (1929), Gujarati Poet, Short Story Writer and Critic. b. March 22, 1908; Educ.: Gujarat Vidyapith, Ahmedabad. Publications: Kadvi Vani; Kavya Mangala; Rang Rang Vadalian; Vasudha; Yatra; Hirakani; Piyasi; Unnayan; Dakshinayan; Arvachin Kavita; Avalokana; Maha Yogi Sri Arvind; Chidambara. Address: Sri Aurobindo Ashram, Pondicherry.

SWAMI CHIDANANDA (Pre-monastic Name Shridhar Rao), President, The Divine Life Society, Rishikesh. b. Sept. 24, 1916, at Mangalore, South Kanara Dist.; Educ.: Mangalore; Loyola Coll., Madras. Religiously inclined since birth; sought the company of devotees and saints even in his boyhood and youth; practised Yoga at home and developed kindness, compassion, simplicity, devotion, love of solitude and a spirit of selfless Paropakara; powerfully influenced by the lives of Ramakrishna Paramahamsa, Jesus Christ, Swami Vivekananda, Rama-thirtha, Ramana Maharshi, Ramadas and Swami Sivananda; renounced the world and journeyed north to the Himalayas, 1943; met his spiritual Guru H. H. Swami Sivananda at Rishikesh and dedicated himself to the Guru's service; ordained as a sannyasin, 1949; was made General Secy. of the Divine Life Society; travelled all over India as Swami Sivananda's spiritual representative till 1959; toured Europe and the Americas to spread the gospel of Divine Life and India's message of Yoga and Vedanta, 1960-61; elected Pres., D.L.S. at passing away of the holy founder, 1963. Address: P. O. Sivanandanagar, Dt. Tehri-Garhwal, U.P.

SWAMI PRAJNANANDA, Secy., Ramakrishna Vedanta Math, Calcutta. b. 1907; Educ.: City Coll., Calcutta; Varanasi. Joined the Ramakrishna Vedanta Math, 1927; took Sanyasa initiation from Swami Abhedananda, the direct disciple of Shri Ramakrishna Paramahamsa, 1927; studied Nyaya and Vedanta Philosophies at Varanasi; conducted research on History of Indian Music; awarded: Sisir Memorial Prize, 1958, Rabindra Memorial Prize, 1960; fellowship by Sangeet Natak Akademi, 1963; connected with various educl. and cultural instt.s; Member, Exec. Board & Gen. Council: Sangeet Natak Akademi, N. Delhi; State Akademi; Member, Board of Studie, Classical Music, Rabindra Univ. Palso connected with Cal. & Viswa-Bharati Univs. Publications: On Music: Historical Devpt. of Indian Music; A Historical Study of Indian Music; A History of Indian Music; Bengali: Bharatiya Sangeeter Itihasa; Raga O Rupa; Bangla Dhrupadamala (with notations); Philosophy : Philosophy of Progress and Perfection; Abhedananda-darsana; Tirtharenu; Mana O Manusa, etc. Address: Ramakrishna Vedanta Math, 19B, Raja Rajkrishna Street, Calcutta-6.

SWAMI, Raja Yogi Nathji Ananda, B.A. (Allahabad), Diploma in Hosiery and Textile, Chairman, Viswa 'Yoga' Bharati, Borivli, Bombay. b. Feb. 19, 1900; Educ.: Hindu Coll., Delhi; St. John's Coll., Agra. Took a

vow to lead a life of four varna ashrama in response to a discourse on Hindu dharma by an American lady in 1916 when he was a student in the 9th class; initiated for Dhyana Yoga at the age of 12 and for Raja Yoga at 18; devoted fully to Yogaprasar during the Vanaprastha Ashrama; founded the 'Visva Yoga Bharati', Borivli. Publications: Raja Yoga Thesis; India's Message of Spirit Force Development. Address: Visva Yoga Bharati, 5, Vallabhnagar, Borivli, Bombay 92.

SWAMI Ranganathananda, Member, Governing Body, Ramakrishna Mission, Belurmath. b. Dec. 15, 1908. A Sanyasin of the Ramakrishna Order of Monks; joined the Ramakrishna Ashrama, Mysore in 1926; took orders in 1933; served as Secy. & Librarian of the Ramakrishna Mission Soc., Rangoon, 1939-42; Pres., Ramakrishna Math and Mission Branch at Karachi, 1942-48; Secy., Ramakrishna Mission, New Delhi, 1949-62; cultural lecture tours to Japan, 1958, eight South East Asian countries 1960, 17 European countries, incl. U.K. and U.S.S.R., 1961 and U.S.A., Canada and South American Countries, 1968-69. Publications: Elernal Values for a Changing Society, to be brought out by the Bharatiya Vidya Bhavan, Bombay; The Message of the Upanishads. Address: The Ramakrishna Math, Belurmath, Dt. Howrah, Bengal.

SWAMI Vireswarananda, B.A., President, Ramakrishna Math & Mission, since Feb. 1966. b. Oct. 1892; Educ.: Presidency Coll., Madras. Joined the Ramakrishna Order, 1916; is an initiated disciple of the Holy Mother Sri Sarada Devi; had his Sanyasa from Swami Brahmanandaji Maharaj, one of the direct disciples of Sri Ramakrishna; served the organisation in various important capacities; joined the Advaita Ashrama, Mayavati (Almora); its Pres., 1927; Trustee, Ramakrishna Math and member, Governing Body of the Mission 1929; Asstt. Secy., 1938; conducted the Bengal Famine Relief, 1943-45; General Secy., 1949-51 and 1961-66; has travelled widely all over the country and also visited Ceylon, Burma, Singapore and Malaysia. Publications: English version of the Brahma Sutras based on Sankara's commentary and Eng. translation of the Bhagavad Gita with the gloss of Sridhara Swami. Address: Ramakrishna Mission, P.O. Belur Math, Dt. Howrah, W. Bengal.

SWAMINATHAN, N. S., M.A. (Econ.), Member (Transportation), Rly. Board. South Central Railway, Secunderabad, since July 6, 1968. b. Dec. 12, 1913; Educ.: Loyola Coll., Madras. Served in former Bengal Nagpur Railway, 1937-42 and 1943-52; held different positions in the Eastern and South Eastern Rlys., 1952-60; became Chief Optg. Supdt., Western & South Eastern Rlys., 1960; Director, Safety and then Dir., Transportation, Rly. Board, till 1967; Gen. Manager, N.E. Frontier Rly., 1967-68; a four-month study tour to Canadian National Rlys. and Canadian Pacific Rlys. under the UN Technical Assistance Scheme, 1953; went on an observation tour of the American Rly., 1967; Gen. Manager, South Central Rly., 1968-70. Address: New Delhi.

SWAMINATHAN, T., M.A. & Diploma in Modern European Languages (Madras), I.C.S., Secretary, Deptt. of Industrial Devpt. & Internal Trade, Ministry of Industrial Devpt., Govt. of India, since Feb. 1970. b. June 18, 1912; Educ.: Presidency Coll., Madras, Entered the I.C.S., 1935; served in different capacities in districts and in the Deptt. of Industries, Labour & Excise, U.P., 1936-51; Textile Commissioner, Govt. of India, Bombay, 1951-54; Minister (Economic), High Commission of India, London, 1954-58; Commissioner General of India for Economic Affairs in Europe, London 1958-61; Addl. Secy. (Industries), Govt. of India, Min. of Commerce & Industry,

1961-62; Deptt. of Heavy Industries, Min. of Steel & Heavy Industries, 1962-63; Spl. Seey., Min. of Economic and Defence Coordination, July to Aug. 1963; Seey.: Deptt. of Supply and Technical Devpt., 1963-65; Deptt. of Defence Supplies. Min. of Defence, 1965-66; Seey., Min. of Iron & Steel, 1966; Amb. to Belgium, Luxemburgh & the European Countries, & Permanent Rep. of India to GATT and UNCTAD, Brussels, 1966-70. Address: Udyog Bhavan, New Delhi.

SWARUP, Jagdish, Solicitor-General of India, since June 1969. b. March 1, 1904; Educ.: Patna Univ. Started practice at Agra; shifted to Allahabad, 1932; Jr. Standing Counsel to the U.P. Govt., 1948-54; Senior Standing Counsel, 1954-56; invited to deliver "Tagore Law Lectures" at Calcutta Univ., 1962; was a co-opted member of the Law Commission. Publications: Interpretation of Indian Statutes; Legislation and Interpretation and a Commentary on the Indian Companies Act, 1956. Address: Supreme Court Building, New Delhi.

SWAYAMBU, Subramanya, B.Sc. (Madras) & Dip. in Electrical Technology, M.I.E. (India), Chairman & Mg. Director, Heavy Electricals (I) Ltd., Bhopal, and Director General, Research & Development Organisation for the Electrical Industry, Min. of Indl. Devpt. and Internal. Trade, Govt. of India, since Aug. 1967. b. Feb. 15, 1911; Educ.: Madras and Bangalore; Eisenhower Fellowship, 1957. Was in the Madras Hydro-Electric Deptt. for five years; 20 years in the Central Water & Power Commission; its Director (Research) and member; Technical Director, Heavy Electricals (I) Ltd., 1963-67; General Manager, Feb. to Aug. 1967; Pres., Soc. of Power Engineers; Chairman, Electro-Technical Division Council, Indian Standards Institution; Leader, Indian delegation to World Power Cfce., Moscow, 1968; Chairman, Indian Consortium of Power Projects. Address: Heavy Electricals (India) Ltd., Bhopal.

TALEYARKHAN, Homi J. H., B.A. (Bombay), Social Worker. b. Feb. 9, 1917; Educ.: Bombay Univ.; King's Coll. and Middle Temple, London. Member and Chief Whip, Congress Party, Bombay Municipal Corporation, 1948-52; visited U.S.A. on a goodwill and study tour; elected M.L.A., Bombay, 1952-67; Gen. Secy., Leg. Congress Party; was member, Estimates Cttee. for two years; toured Japan, 1956 & Europe, '60, '65, '66 & '67; Chief Whip, Leg. Congress Party and Parl. Secy. to the Chief Minister, 1957; is an Associate delegate of the A.I.C.C.; pioneered a scheme for low-income group holiday resorts; Chairman, Workshop for the Blind; Minister for: Public Health, Small Savings and Tourism, Maharashtra, 1960-62; Food & Civil Supplies, 1962-65; Dir., Shipping Corporation of India & Chairman, Govt. of India National Reorganization Cttee.; Chairman, International Trade Groups. Address: Currimbhoy Manor, 41, Warden Road, Bombay 26.

TALEYARKHAN, Smt. Thrity Homi Jehangir, Padma Shri (1965), Social Worker. b. July 22, 1925; Educ.: St. Xavier's Coll., Bombay. Member: All India Handicrafts Board, since 1963; Founder and Chairman, Shilpi Kendra; Vice-Pres.: Crafts Council of India; Exec. Cttee., Maharashtra State Women's Council; Govg. Council, Bharatiya Vidya Bhavan; Board of Governors, Instt. of Catering Tech. and Applied Nutrition; member, National Rly. User's Consultative Council; Founder and Gen. Secy., All India Women's Central Food Council; Govt. of India's Rep. to the World Seminar on Women's Problems, in Germany, July-Aug. 1965. Address: Currinfbhoy Manor, 41, Warden Road, Bombay-26.

TALWAR, Raj Kumar, M.A., C.A.I.I.B., Chairman, State Bank of India, since March 1, 1969. b. June 3, 1922; Educ.: St. Patrick's High School, Karachi; D. J. Sind Coll., Karachi; Govt. Coll., Lahore. Joined the Imperial Bank of India, Nov. 1943; Inspector of Branches under Central Office, 1958-59; Supdt. of Advances at Calcutta, Dy. Secretary & Treasurer at Calcutta and Madras 1959-65; Secy. & Treasurer, Hyderabad Circle, Feb. 1965-66; Secretary & Treasurer, Bombay Circle, 1966-68; Managing Director, 1968-69. Address: 'Dunedin', Harkness Road, Bombay 6.

TALYARKHAN, Rustom Furdoonji Sorabji, M.A. (Cantab.), Bar-at-Law, Chairman & Chief Executive, Voltas Limited, Bombay. b. Aug. 30, 1907; Educ.: Clifton Coll. Bristol; Gonville & Caius Coll., Cambridge. Chairman: Henley Cables India Ltd., and Tata-Merlin & Gerin Ltd.; Dir.: Tata Industries Pvt. Ltd., Roche Products Ltd., Scottish Indian Machine Tools Ltd., International Tractor Co. of India Ltd., The Gokak Mills Ltd., Merck Sharp & Dohme of India Ltd.; Pres., Bombay Gymkhana Ltd. Address: Lyndewode House, Bomanji Petit Road, Bombay 26.

TANDON, Narendra Nath, General Manager, North-East Frontier Railway, since Jan. 30, 1970. b. July 13, 1916; Educ.: Govt. Coll., Lahore; Institute of Mechanical Engineers, London. Joined Rlys., 1935; trained in the U.K., 1939-41; Divnl. Supdt., Eastern Rly., Howrah, 1960-63; Dir., Rly., Board, 1964-67; Gen. Manager, Diesel Locomotive Works, Varanasi, 1968; Addl. Member (Mechanical), Rly. Board, 1968-69. Address: N. F. Railway, P.O. Maligaon, Gauhati 11.

TANDON, Prakash Lal, B.A. (Punjab), B.A. (Com.) (Manch.), F.I.C.A. (Eng. & Wales), Chairman, State Trading Corporation, since July 1968. b. June 11, 1911, Lahore. Joined Lever Bros. (India) Ltd., 1937; Sales Manager, Marketing Controller & Marketing Dir., Hindustan Vanaspati Mfg. Co. Ltd., 1941–56; Coordinating Dir., Fin. Dir., Vice-Chairman & Chairman, Hindustan Lever Ltd., 1956–58; Pres., Bombay Chamber of Commerce and Indus. 1964-65; Member, Court of Governors, Adm.ive Staff Coll. of India, Hyderabad; ex-Chairman, Indian Instt. of Management, Ahmedabad; Dir.: Hindustan Steel Ltd.; Central Board of the R.B.I.; Hindustan Aeronautics Ltd.; led a Marketing and Distribution Team of the N.P.C. of India to the U.K., U.S.A. and West Germany, 1960; visiting Professor, Univ. of California, Los Angeles, 1967. Publications: Punjabi Century 1857–1957, 1961. Address: "Dakshin Pali", D'Monte Park, Bandra, Bombay 50; 'Mitali', B-6/14, Safdarjang Devpt, Area, New Delhi-16.

\*TARNEJA, Dr. Ram S., B.A., (Hons.) (Delhi), M.A., (Delhi & Virginia), Ph.D. (Cornell), Deputy Gen. Manager, Bennett, Coleman & Co. Ltd., Proprietors of the Times of India and Allied Publications, since March 17, 1970; Director: Arim Metal Industries Pvt. Ltd., Calcutta, since 1963; Efficiency Aids Pvt. Ltd., Madras, since 1965; Governor, Indian Inst. of Management, Calcutta, since 1965. b. Dec. 7, 1931, at Karachi; Educ: Univ. of Delhi; Univ. of Virginia; Cornell University; Gold Medallist, Research Asstt., Univ. of Virginia, 1953-55; Graduate Research Asstt., Cornell Univ., 1955-57; Asstt. Prof. of Management, Duquesne Univ., 1957-60; Dir., Graduate Dept. of Business Admn., Duquesne, 1958-61; Assoc. Prof. of Management, Duquesne Univ., 1960; Director of Personnel, Sahu Jain Group of Industries, Calcutta, 1961-70; Dir.: Parshva Properties Ltd., Calcutta, 1968-70; Kapil Industries Ltd., Calcutta, 1969-70; Pres.: Patna

Management Assn.; Indian Institute of Personnel Management; Vice-Pres., All India Management Assn.; member, Calcutta Management Assn.; Chairman: Acad. of Management; Bihar Chamber of Commerce; Indian Instt. of Public Administration. Publications: Profit Sharing and Technological Change, 1964; Developing Better Managers; Chapter on India (with Dr. Kamla Chowdhury), 1961; articles and papers in the field of business management. Address: Residence: 3-C, Woodlands, 67, Pedder Road, Bombay 26; Office: The Times of India, Dr. Dadabhai Naoroji Road, Bombay 1.

TATA, Dorab Ratanji Dadabhoy, Industrialist. b. Paris, Feb. 26, 1912; Educ.: France and England. Dir.: Tata Sons Private Ltd., Tata Industries Private Ltd.; Trustee: Sir Dorabji Tata Trust, Lady Tata Memorial Trust. Address: Residence: Taj Mahal Hotel, Bombay 1. Office: Bombay House, Bruce Street, Fort, Bombay 1.

TATA, Jehangir Ratanji Dadabhoy, Hon. D.Sc. Allahabad Univ.) (1947), Hon. Air Commodore, (Allahabad Univ.) (1947), Hon. Air I.A.F., Officer of the Legion of Honour, Paris, France (1954), Padma Vibhushan (1955), Industrialist. b. July 29, 1904, in Paris. Chairman : Air-India, Tata Sons Pvt. Ltd., Tata Industries Pvt. Ltd., Tata Iron & Steel Co. Ltd., Tata Hydro-Electric Agencies Ltd., Tata Oil Mills Co. Ltd., Telco Ltd., Tata Chemicals Ltd., Indian Hotels Co. Ltd.; Tata Ltd., London and Tata Incorp. (New York), Tata Institute of Fundamental Research, National Aeronautical Laboratory (Exec. Council), National Centre for Performing Arts and Homi Bhabha Fellowships Council; Director: Svadeshi Mills Co. Ltd., New India Assurance Co. Ltd. (Vice-Chairman), Investment Corpn. of India Ltd.; Pres., The Court of the Indian Institute of Science, Bangalore; Trustee, Sir Dorabji Tata Trust (Chairman), Lady Tata Memorial Trust (Chairman), J. N. Tata Endowment (Chairman), Gandhi Smarak Nidhi and Kasturba Gandhi National Memorial Trust; member: Atomic Energy Commission; I.A.C.; Exec. Cttee., International Air Transport Assoc.; first pilot to qualify in India holding a private licence since March 1929; Solo flight India-England, 1930; founded Tata Airlines, 1932; and piloted inaugural service Karachi-Bombay, Oct. 1932. Address: Office: Bombay House, Bruce Street, Bombay 1. Residence : The Cairn, Altamount Road, Bombay 26.

TATA, Naval Hormusji, Padma Bhushan (1969), Industrialist. b. Aug. 30, 1904, Bombay; Educ.: Bombay Univ. Chairman: Tata Group of Textile Mills, Tata Group of Hydro-Electric Companies, Indian Cancer Society, Aux. Forces Welfare Asso.; Dy. Chmn.: Tata Sons Pvt. Ltd., Tata Industries Pvt. Ltd., Tata Oil Mills Co. Ltd. (Vice-Chmn.); Director: New India Assce. Co., Telco. Ltd., National Rayon Corpn., Investment Corpn. of India Ltd.; Pres.: Employers' Federation of India, National Institute of Labour Management; Trustee: Sir Dorabji Tata Trust, Sir Ratan Tata Trust, N. M. Peon Trust; Member: Indian Cotton Mills Federation, Governing Body, I.L.O., Geneva. Address: Residence: Tata House, Waudby Road, Fort, Bombay 1; Office: Bombay House, Bruce Street, Fort, Bombay 1.

TAWDE, Dr. Nanasaheb Ramji, B.A. (Hons.), B.Sc. (Bombay), MSc. (Bombay), Ph.D. (Lond.), F. Inst. P. (Fellow of Instt. of Physics, Eng.), F.N.I. (Fellow of Nat. Instt. of Scs., India), F.A.Sc. (Fellow of the Indian Academy of Scs.), Vice-Chancellor, Marathwada Univ., since June 19, 1964. b. Jan. 15, 1898; Educ.: Bombay, London and Stockholm (Sweden). Pres., Physics Scc. of Indian Sc. Cong., Lucknow, 1953; Fellow, Bombay Univ.; member: Syndicate, Senate, Academic Council

and Board of Studies, Karnatak Univ.; Court of Ind. Inst. of Sc., Bangalore; Instt. of Nuclear Engrs., London, 1960; India Wheat Loan Exch. Sch. in U.S.A.; Ag. Vice-Chancellor, Karn. Univ., 1962; Council member: Saha Inst. of Nuc. Phys., Calcutta, Ind. Acad. Sc., Inter-Univ. Board, India & Ceylon; Assn. of Commonwealth Univs. Publications: About 120 on modern problems of Physics; Author of Jeevan Vidnyan. Address: Marathwada Univ., Aurangabad (Deccan).

THACKERSEY, Krishnaraj Madhavji Damodar, B.A., J.P., Millowner & Merchant. b. May 20, 1909; Educ.: Bharda New High School, Bombay; Elphinstone Coll., Bombas. Is Chairman: Scindia Steam Nav. Co. Ltd., Indian Mfg. Co. Ltd., Hindoostan Spg. & Wvg. Mills Co. Ltd., National Machinery Mfrs. Ltd., Indian Mercantile Insurance Co. Ltd. and Siemens India Ltd.; Director: Crown Spg. & Mfg. Co. Ltd., Bank of India Ltd., Central India Spg., Wvg. & Mfg. Co. Ltd., Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd., National Rayon Corpn. Ltd., Andhra Valley Power Supply Ltd. and several other companies; Chairman: Bombay Millowners' Assoc., 1938 and 1942; Cotton Textile Control Board, 1943-48; Indian Cotton Mills Federation, 1960; leader, delegation of Textile Millowners to U.K., 1947; Trustee: Bombay Port Trust, 1943-57, Bombay Hospital Trust, besides other charity trusts; member, Cttee. of Management, C.C.I. Ltd. Address: Vithaldas Chambers, 16, Apollo St., Bombay 1.

THACKERSEY, Dr. Smt. Premlila Vithaldas, D. Litt. (Banaras Hindu Univ.) and (S.N.D.T. Univ.), Social Worker; Vice-Chancellor, S.N.D.T. Univ., 1957-69, b. Jan. 8, 1894; Educ.: Studied English and Sanskrit at home. Went on a world tour, 1919; began taking interest in social and educl. activities, 1926; nominated Vice-Chancellor, S.N.D.T. Univ., 1951; elected in 1957, 1960, 1963 and 1966; Chairman: Kasturba Gandhi National Memorial Trust; Prof. J. P. Trivedi Memorial Trust; Lady Northcote Hindu Orphanage and Vanita Vishram. Address: Parnakuti, Yeravada Hill, Poona 6.

THADANI, Motiram Rijhumal, M.Sc. (Texas), Ambassador of India in Denmark, since April 14, 1969. b. Oct. 13, 1915; Educ.: A & M Coll., Texas. Director: Min. of Food, 1946-47; Industry and Supply, 1947-48; Rehab., 1948; Community Devpt., 1955-56; Charge d'Affaires, Embassy of India, Khartoum, 1957-59; Dy. Secy., Min. of Ext. Affairs, 1960; First Secy., Emb. of India, Peking, 1961-63; Charge d'Affaires, Emb. of India, Peking, 1963-66; Dir., Min. of Ext. Affairs, 1966-69. Address: C/o Ministry of External Affairs, New Delhi.

Industrialist of South India. b. 1893; Educ.: St. Thomas' Coll., Colombo. Joined the "Morning Leader" as an apprentice; reported on labour conditions in the plantations in Ceylon; improved the terms and conditions of employment of estate labour; joined the Congress, 1914; Seey., Provincial Cong., 1916; member, A.I.C.C., 1917; led the agitation against the introduction of Hindi in Tamil Nadu, 1937; Founder: Thiagarajar: High Schools, Coll., Coll. of Preceptors, & Coll. of Engg., Madurai; Thiagarajar Polytechnic, Salem and Alagappanagar; Sree Visalakshi Kalasalai, A. Thekkur (Ramnad) etc.; Mg. Editor, Tamil Nadu, a leading Tamil Daily published from Madurai. Address: "Meenakshi", Thirupparankundram Road, Madurai 3 (Tamil Nadu).

THIMMA REDDY, Peddireddi, B.A., Minister for Land Revenue, Registration & Stamps, Andhra Pradesh, since Aug. 1969. b Nov. 24, 1914; Educ.: Theosophical Coll., Madanapalli (Madras Univ.). Entered politics while a student; elected Vice-Pres., Andhra Congress Cttee., 1946; was Editor, Telugu Weekly Vahini, the mouthpiece of peasants; courted jail in the 1942 freedom movement; elected M.L.A., Madras, since 1952; Minister, Andhra, 1953; Minister for Food and Agriculture, Sanjiva Reddy's Cabinet; Chairman, A.P. Khadi & Village Industries Board, 1962–64; visited the U.K. as an agricultural expert, 1961; became Pres., A.P.C.C., 1964. Address: Hyderabad.

THOMAS, Alungal Mathai, B.A., B.L., High Commissioner for India in Australia, since July 15, 1967. b. June 4, 1912; Educ.: Maharaja's Coll., Ernakulam; Law Coll., Trivandrum. Advocate, Supreme Court; M.L.A., Cochin, 1948; member: Standing Finance Cttee. appointed by Cochin Govt. to enquire into disabilities of Pali Tenants and Tenancy; Select Cttee., Travancore Cochin Assembly, 1948-52; Exec. Cttee., Travancore Cochin Assembly, Congress Parly. Party and Congress Whip, 1951; Speaker, Travancore-Cochin Leg. Assembly; M.P. (Lok Sabha), 1952-67; was Chairman, Select Cttee. on the Rubber Bill; Dy. Minister for Food, Govt. of India, 1957-63; Minister of State for Food, 1963-64; Minister for Defence Production, 1964-67; led: Indian delegation to the U.N. Sugar Confce., Geneva, 1958 and 1961; Food Delegation to Canada and U.S.A., 1960. Address: C/o External Affairs Ministry, New Delhi.

TIDKE, Narendra Mahipati, B.A. (Hons.) (Nagpur), LL.B., Minister for Labour, Maharashtra State, since Dec. 5, 1963 and also for Rural Development from Aug. 1969. b. Nov. 2, 1920; Educ.: Nagpur. Was Org.ing Seey., All India Students Congress; Chairman, Steering Cttee., 1st All India Session of National Union of Students; Seey., Youth Wing of Nagpur Pradesh Cong. Cttee.; was jailed for participating in 1942 freedom struggle; was Gen. Seey., Nagpur Pradesh I.N.T.U.C.; Pres.: Rashtriya Mill Mazdoor Sangh, Nagpur; Ballarpur Paper Mill Mazdoor Sabha; was Seey., All-India National Textile Workers' Federation; Indian workers rep. at 39th Session of I.L.O. at Geneva and participated in the Study Cfce. at Oxford, 1956; Leader, Indian Delegation to the 50th Anniversary of the I.L.O. Geneva, 1969; was member, Nagpur Univ. Court; Seey., Maharashtra Rajya Shikshan Sanstha; M.L.A., from Saoner Constituency, since 1957; Dy. Min. for Rural Devpt., 1960-63. Address: Sachivalaya, Bombay 32.

TOBACCOWALA, Akhtarali Hasanali, Industrialist, b. January 17, 1925; Educ.: B.A., 1944; M.A., 1946; LL.B., 1947, Bombay Univ.; M.B.A., 1952, Univ. of Chicago. Trained & worked in U.S.A. as Industrial Engineer, 1952-53; Director: Tata Industries Pvt. Ltd.; Tata-Johnson Ltd., Calcutta; Tata Services Ltd.; Tata-Press Ltd.; National Radio & Electronics Co. Ltd.; Jayabharat Credit & Investment Co. Ltd.; Member: Exec. Cttee., Tata Consultancy Services; Board of Governors, Indian Instt. of Management, Ahmedabad; Governing Council, The Indian Roads & Transport Development Assoc. Ltd.; Pres., Assoc. of Indian Automobile Manufacturers; Trustee: Heras Society. Address: Office: Bombay House, Bruce St., Fort, Bombay 1; Residence: 51, Las Palmas, Little Gibbs Road, Malabar Hill, Bombay 6 WB.

TRIPATHI, Kamakhya Prosad, M.A., B.L., Minister of Finance and Labour, Assam State, since Mar. 1967. b. Feb. 1, 1910; Educ.: Cotton Coll., Gauhati; Calcutta Univ. Started career as a legal practitioner at Tezpur; Secy., Tezpur Town Congress Cttee., 1937-40; courted jail in freedom movement; elected Pres.: Tezpur

D.C.C., 1946-53; Assam Branch of the I.N.T.U.C., 1947; Indian National Plantation Workers' Federation, since 1948; member, A.I.C.C., since 1948; represented India in several international confcs.; member, Governing Body of I.L.O., 1953-57; represented Indian workers in I.L.O., 1953-57; elected M.P., 1952; Vice-Pres., I.N.T.U.C., 1950-53; General Secy., 1953-57; was elected M.L.A., Assam, since 1952; Min. of Planning, Industries, Labour, etc., 1957-62. Address: Minister for Finance and Labour, Assam State, Shillong.

TRIPATHI, Kamalapati, Shastri (Kashi Vidyapith), Pres., U.P.C.C. b. Bhadra Shukla 5, 1962 (Vikram); Educ.: Central Hindu School and Kashi Vidyapith. Was Editor, Aj and Sansar (Hindi dailies) for more than two decades; courted jail for active part in freedom movement; awarded the Mangala Prasad Puraskar for Bapu-Aur-Manavta; elected M.L.A. U.P., since 1936; was member, Constituent Assembly and one of the members of Constituent Translation Sub-Cttee. (Hindi); was Minister for Irrigation and Information and later for Home, Education & Information, U.P.; Dy. Chief Min., U.P., 1969. Publications: Hindi: Maurya Kaleem Bharat; Islami Duniya ka Sartaj; Bapu Aur Manavta; Bapu Aur Bharat; Patra Aur Patrakar, Bapu Ke Charnon Men, etc. Address: Aurangabad; Varanasi.

TRIVEDI, Sir Chandulal Madhavlal, K.C. S.I. (1945), Kt. Bach. (1945), C.S.I. (1941), C.I.E. (1935), O.B.E. (1931), LL.D. (Honoris Causa, Punjab Univ.), Doctor of Letters (Honoris Causa), Andhra Univ., Padma Vibhushan, 1956, Chancellor, Gujarat Ayurveda Univ., President, Bharat Scouts and Guides, New Delhi; Ex-Governor, Andhra Pradesh. b. July 2, 1893; Educ.: Elphinstone Coll., Bombay, St. John's Coll., Oxford. Entered I.C.S., 1917; held important posts in the C.P. & Berar Govt. and Govt. of India till he became Governor of: Orissa, 1946-47; Punjab, 1947-53; Andhra State, 1953-56; A.P., 1956-57; member, Plng. Commn., 1957-63; Dy. Chairman, Plng. Commn., Oct.—Dec. 1963; Arbitrator, U.P.-Bihar Boundary Dispute, Jan.—Aug. 64; Chairman, M.P. Police Commn., 1964-65. Address: Chandra Bhuvan, Kapadwanj, Kaira Dist.

TRIVEDI. Hariprasad Mulshankar, Bar-at-Law, Chairman, Karmahon/U.K. Conference and Karmahon/Continental Conference, since March 1963 and Rep. in India of U.K. and Continental Shipping Conferences. b. March 8, 1914. Secy., Bombay Ship Repair & Shipbuilding Panel, 1942-43; Govt. of India delegate to Transport & Communications Commission of U.N., New York, 1949; delegate, Indian Council of World Affairs to: International Conference of the Institute of Pacific Relations, Stratford-On-Avon, England, 1947; Lucknow, 1950; Adviser to Indian Employers' delegate to 32nd session of the General Cofce. of the I.L.O., Geneva, 1949; Member: All India Council of Labour Welfare Officers representing Indian National Steamship Owners' Assoc., 1952; Govt. of India Intermediate Port Devpt. Cttee., 1960; elected Trustee, Bombay Port Trust, 1967 & 1969; elected member, Cttee. of Indian Merchants' Chamber, 1967; appointed Dir.: Dena Bank Ltd., 1968; Bennett, Coleman & Co. Ltd., by the Govt. of India, Sept. 1969; nominated member, National Shipping Board, Sept. 1969; has been delegate to several Cices. abroad in connection with shipping and labour. Publications: Labour and Factory Legislation in India, 1945; Industrial Capital in India, 1946; Role of Freight in Exoport Promotion, Bombay, 1969. Address: Office: Scindia House, Ballard Estate, Bombay 1; Residence: Raj Mahal, Juhu, Bombay-54.

TRIVEDI, Vishnuprasad Chunilal, B.A. (Hons.), B.A. (Tripos) (Cambridge), M.A. (Cantab.), Ambassador of India to Austria and Governor for India on the board of the International Atomic Energy Agency, since Dec. 1967. b. Feb. 12, 1916; Educ.: Univs. of Bombay and Cambridge. Served Govt. of Bombay & India in several capacities, 1940-50; First Secy., Indian Embassy, Tokyo, 1950-53; Counsellor, Indian High Commn., Lond., 1955-59; Dy. High Commr., Dacca, 1959-60; Ag. High Commr., Karachi, 1960-61; Jt. Secy., Ministry of Ext. Affairs, 1961-64; Rep. to the U.N. Gen. Assembly, 1963, '65, '66 and '67; led the Indian delegation to the 18 Nation Disarmament Cfce. in Geneva, 1964-67; and Eco. and Social Counsil, 1964, '65 and '67; Amb. to Switzerland & Vatican, 1964-67. Address: C/o External Affairs Ministry, New Delhi.

TRIVEDI, Vishnuprasad Ranchhodlal, M.A. (Bombay), Gujarati Critic. b. July 4, 1899, at Umreth, Dist. Kaira; Educ.: Thasra, Nadiad and Ahmedabad. Twice Sectional Chairman, Gujarati Sahitya Parishad; Thakkar Vassonji Lecturer of Bombay Univ.; G.M. Tripathi Lecturer, Gujarat Univ.; was Fellow, Gujarat Univ.; Pres., Guj. Sahitya Parishad, 1961; Sahitya Akademi Award, 1963. Publications: Vivechana; Upayana; Govardhanram; Parishilan; Arvachin Chintanatmak Gadya. Address: 'Maitri', Adarsha Society, Surat.

TUKOL, T. K., M.A., LL.B., Vice-Chancellor, Bangalore Univ., since Dec. 1969. b. May 5, 1908; Educ.: Hubli, Sangli, Dharwar and Poona. Prof. of English, Fergusson Coll., Poona, 1931; practised at Bijapur, 1934-37; Subjudge and Magistrate F.C., Alibag, 1938-49; Asstt. Judge, 1949; Special Officer (Merger of States), Govt. of Bombay, 1948-50; Special Judge Under Prevention of Corruption Act, 1952; Dist. & Sessions Judge, Kolhapur, Ahmednagar, Satara, Karwar, Dharwar and Bijapur, 1955-57; Addl. Law Secy., Mysore, 1957-61; Secy., Law Deptt., 1961-62; Mysore High Court Judge, 1962-69; Chairman, Mysore Pay Commission, 1966. Address: Vice-Chancellor, Bangalore University, Bangalore 1.

TYABJI, Mrs. Khadija Shuffi, Sociel worker; Ex-J.P., Hony. Presidency Magistrate; ex-M.L.A., Associate Serving Sister, St. John Ambulance, Maharashtra State. b. 1885. Member, Municipal Corpn.; first Commr., Municipal Girl Guides; was State Commr. (Guides); is Vice-Pres., Bharat Scouts and Guides; Chairman: Red Cross Exec., 1928; Mahila Seva Mandal; Albless and Cama Hospital Adv. Board; Vice-Pres., Social Service League; member, Port Haj Cttee.; is connected with — Govt. Urdu Text Book Cttee.; Infant Welfare Soc.; The Bombay Mothers and Children Welfare Soc.; Soc. for the Protection of Children in Western India, etc.; awarded Kaiser-i-Hind Silver Medal, 1935; Gold Medal, 1941; Silver Star by the National Hqrs., Bharat Scouts & Guides, 1962; St. John Ambulance Seva Medal, Maharashtra State, Sept. 1969. Address: Khatau Mansion, Oomer Park, Warden Road, Bombay 26.

TYAGI, Mahavir, M.P., Chairman, 5th Finance Commission; Ex-Minister for Rehabilitation, Govt. of India. b. 1900, Dhabarsi Village, Moradabad Dist. (U.P.); Educ.: Privately. Has been a staunch Congressman; courted jail eleven times for Congress activities; member: A.I.C.C., 1923-65; Constituent Assembly of India, 1946-49; Provisional Parliament, 1950; ex-member, U.P. Leg. Assembly; organised Tyagi Police, U.P., Aug. 1947; returned to the Lok Sabha from Dehra Dun District-cum-Bijnor Dist. (North-West)-cum-Saharanpur Dist. (West) Constituency, U.P. in the general elections; Minister of

Revenue and Expenditure, Govt. of India, 1951-53; Minister, Defence Organisation, 1953-57; Chairman: P.A.C., 1962-64; Direct Taxes Administration Enquiry Committee. Address: New Delhi.

VAIDIALINGAM, Mr. Justice C. A., B.A., B.L., Judge, Supreme Court of India, since Oct. 1966. b. June 30, 1907; Educ.: P. S. High School, Mylapore; Presidency Coll. and Law Coll., Madras. Enrolled as Advocate, High Court, Madras, Aug. 13, 1931; co-opted as Member, Bar Council, 1948; elected to the Bar Council, 1950 and 1955; Govt. Pleader, Madras, 1953-57; Amicus Curiae Counsel in the enq. in the Ariyalur Rly. accident, 1956; Judge, High Court, Kerala, 1957-66. Address: Anantha Sadan, 40-C, Luz Church Road, Mylapore, Madras 4; Supreme Court of India, New Delhi.

VAIDYA, Vijayarai Kalyanrai, B.A. (Eng.) (Hons.) (Bombay), Gujarati Critic, Author & Literary Journalist. b. April 7, 1897; Educ.: Wilson Coll., Bombay; Samaldas Coll., Bhavnagar. Editor: Chetan, 1920-23; Kaumudi, 1924-35; Manasi, 1935-60; Prof. of Gujarati, M.T.B. Coll., Surat and Commerce Coll., Bhavnagar, 1937-52; Editor, Rohini, 1962-63; Auth. Ed., Jai Sahitya-ni-Vishva-Kosh, Part I (1967), Part II (1970) — A Cyclopaedia of World Literature; Vinayak-ni-Atmakatha (autobiography) 1969; Manapasand Nibandha (select Gujarati essays) 1970 and 27 other books. Address: 1582, Krishna Nagar, Bhavnagar.

WAIRALE, Madhusudan Atmaram, B.A., LL.B., Minister for Bldgs. & Communications and Tourism, Maharashtra, since Jan. 1968 and Buildings and Communications from June '69. b. Nov. 11, 1928; Educ.: Akola and Nagpur. Jailed for active part in freedom movement; was Sub-Editor, Mathrubhumi, Marathi daily; won many trophies in Marathi and Hindi debates in the Nagpur Univ.; M.L.A., Bombay 1957; was Vice-Pres., Vidarbha P.C.C.; Gen. Secy., Bombay Leg. Cong. Party; member: Nagpur Univ. Court; State Adv. Board for Territorial Army, N.C.C. & Home Guards; Indian Youth delegation to U.S.S.R., China & Viet Nam; Dy. Min. for Agril, Maharashtra, 1960-62; Dy. Min. for Irrigation & Power, 1962-63; and Bldgs. Communications, 1963-67; Minister for Bldgs., Communications & Tourism, 1967-68. Publications: 100 short stories and articles on politics. Address: Sachivalaya, Bombay 32.

VAJPAYEE, Atal Bihari, M.A., M.P. (Lok Sabha), President, Bharatiya Jan Sangh, since Feb. 13, 1968; Journalist. b. Dec. 25, 1926; Educ.: Victoria Coll., Gwalior; D. A. V. Coll. Kanpur. Joined R.S.S., 1940; courted jail in the freedom movement of 1942; whole-time R.S.S. worker from 1947; joined Bharatiya Jan Sangh since its inception, 1951; elected to Lok Sabha from U.P., 1957 & 1967; Rajya Sabha, 1962; re-elected leader, Jan Sangh Parl. Party; member: National Integration Council; Parliamentary Goodwill Mission to East Africa; Parly. Delegation to the Commonwealth Parly. Assoc. meeting held in Canada, 1966; Hindi Salakar Samiti; Chairman, Public Account Cttee., Lok Sabha, (1969-70); visited America, Europe and middle east countries; Editor: Swadesh, daily, Lucknow; 1949; Veer Arjun, daily, Delhi, 1952-53 and some periodicals. Publications: A number of booklets and tracts expounding the Jan Sangh's viewpoint on various issues. Address: 1, Firozshah Road, New Delhi 1.

M.Sc. (Econ.) (London), Economist; Vice-Chancellor, South Gujarat Univ., Surat, since Aug. 1968.

b. Aug. 22, 1895; Educ.: Bombay and London. On the Staff of the Univ. School of Economics and Sociology, Bombay, 1921-56; Dir.: 1930-56; Dir., UNESCO Research Centre, Calcutta, 1957-60; Central Board, R.B.I., 1962-70; Economist to the Plng. Dept., Govt of India, 1945-46; Pres.: Indian Agri. Economics Cfce., Trivandrum, 1952; Indian Labour Economics Cfce., Ahmedabad, 1962; Member, Experts Cttee., I.L.O., 1956; Publications: Fin. Developments in Modern India, 1860-1924 (1925); The Falling Rupee (1943); The Financial Burden of the War on India (1943); Economic Consequences of Divided India (1950); Planning for a Shortage Economy (1952); Planning for an Expanding Economy (1956) and others. Address: 14, Kalpana, 96, Marine Drive, Bombay 2.

VARADARAJAN, Dr. M., M.A., M.O.L., Ph.D. (1947), Tamil Essayist, novelist & critic, Prof. of Tamil, Univ. of Madras. b. 1912; Educ.: Madras Univ. Chairman, Board of Studies in Tamil, Sri Venkateswara Univ.; Tirupati & Madras Univ.; Member: Academic Council & Senate, Madras Univ.; Board of Studies in Tamil, Annamalai, Mysore & Bangalore Univs.; Sahitya Akademi, Delhi; Bureau of Tamil Publications, Madras; Tamil Devpt. Council, Govt. of Madras; Madras State Award during the centenary celebrations of the 1857 uprising, for his services to Tamil literature. Publications: Novels, short-story collections, biographies, works of literary criticism, etc. Address: Chellammal Street, Madras 30.

VARMA, Dr. Dhirendra, M.A. (Allahabad), D. Litt. (Paris), Sahitya Vachaspati, Hindi Scholar, Educationist. b. May 17, 1897; Educ.: Dehra Dun, Lucknow, Allahabad and Paris. Patron, Bharatiya Hindi Parishad; Univ. Prof., Allahabad Univ., 1924-59; member: Sahitya Akademi, Delhi; Hindustani Academy, Allahabad; Linguistic Soc. of India, Poona; Chief Editor, Hindi Encyclopaedia, Varanasi, 1959-61; Prof. of Philology and Linguistics, Univ. of Sagar, Sagar (M.P.), 1961-65; Vice-Chancellor, Jabalpur Univ., 1966-68. Publications: History of Hindi Language—Hindi; La Langue Braj—French; Brajbhasa Grammar; Letters from Europe—Hindi; Vichardhara—Collection of essays; Madhyadesha; My Diary; Hindi Sahitya Kosha, Vol. I and II; Hindi Vishvakosha, Vol. I, and Vol. II; Prachim Hindi Patra Sangraha; Hindi Sahitya ka Brihat Itihas, Vol. II. Address: "Shri Chandraloka," 13, Bund Road, Allahabad 2.

VARTAK, Hari Govindrao, B.A., LL.B., Minister for Food, Civil Supplies, Khar Lands, Fisheries & Indian Games, Maharashtra, since March 1967; also Revenue from July 22, 1970. b. Feb. 9, 1914; Educ.: Bordi (Thana Dist.,) & Poona. Started his public life as Sarpanch of Virar (1940); became Pres., Thana Dist. Local Board and Vice-Pres., Bombay Divisional Devpt. Council; Chairman, Maharashtra Housing Board (1960-62); was closely associated as Pres. with many educational, cultural and agricultural institutions in Thana Dist.; was Gen. Secy., M.P.C.C.; is its Treasurer; Deputy Minister, Maharashtra (1962-66). Address: A/6, Foreshore Road, Bombay 1.

VASAVADA, Shamprasad Rupshanker, M.A., Padma Bhushan (1968), M.P. (Rajya Sabha), Ex-Pres., National Federation of Indian Railwaymen; member: Working Cttee., I.N.T.U.C.; National Plng. Council; National Commission for Labour. b. Feb. 16, 1903: Educ.: Rajkot; Bahauddin Coll., Junagadh. Hon. Secy., Textile Labour Assoc., Ahmedabad, 1946; Municipal Councillor, Ahmedabad, 1936-50; M.L.A., Bombay, 1950 and 1952; was Pres., Indian National Textile Workers'

Federation for six years; Pres., I.N.T.U.C., 1954-57; member: Central Adv. Council for Industries; Rly. Accidents Inquiry Cttee., 1968; National Integration Council; Cotton Adv. Board; Adv. Council on Trade; etc.; Dir.: Air India; Indian Airlines; Indus. Fin. Corpn.; Ex-Dir.: Sindri Fertilizers; was Gen. Secy., I.N.T.U.C.; Chairman, National Textile Corpn. Address: Gandhi Majoor Sevalaya, Bhadra, Ahmedabad.

VENKATAPPIAH, Burra, I.C.S., Member, Planning Commission. b. 4 Oct. 1907; Educ.: M.A., Madras and London Univ.; Joined I.C.S., 1932; served Bombay State in several capacities till he became Fin. Secy., 1946-50, Exec. Dir., Reserve Bank of India, 1950-55, Dy. Governor, 1955-62; Member: Rural Banking Inquiry Cttee., 1948; All-India Rural Credit Survey Cttee., 1954; Taxation Inquiry Commission, 1954; Dearness Allowance Commission, 1967; Court of Governors of Adm. Staff Coll., Hyderabad; Chairman: State Bank of India, 1962-65; All-India Rural Credit Review Cttee.; Study Team of Adm. Reforms Commission on Financial administration, 1967; Mafatlal Services Pvt. Ltd., 1967; Advisory council for the regional office and education centre for SE Asia of International Co-operative Alliance; Rural Electrification Corporation (Pvt.) Ltd. Address: 8, Tees January Marg, New Delhi 11.

VENKATARAMAN, Dr. Krishnasami, M.A. (Madras), M.Sc. Tech., Ph.D., D.Sc. (Manch.), F.N.I., F.A.Sc. Padma Bhushan (1961), Hon. D.Sc., Moscow Inst. of Chem. Tech. (1962), Fellow of Deutsche Akademie der Naturforscher, Leopoldina; Dir., National Chemical Laboratory, Poona, 1957-66. b. June 7, 1901; Educ.: Madras and Manchester. Dir., Deptt. of Chemical Tech., Bombay, 1938-57; Chairman, Chemical Research Cttee. of the C.S.I.R., 1951-57; Pres.: Chemistry Sect., Indian Sc. Cong., 1945; Editorial Adv. Board of Tetrahedron, and Current Science; Chairman, Devpt. Council for: Drugs, Dyes and Intermediates; Min. of Commerce & Indus., 1958-60; Org. Chemical Industries, 1960-62. Publications: The Chemistry of Synthetic Dyes, (translated into Russian and Chinese); numerous papers—A chapter on 'Methods for Determining the Structure of Flavonoid Compounds, 1962; and others. Address: C/o National Chemical Laboratory, Poona 8.

VENKATARAMAN, R., M.A., B.L., Member, Planning Commission, since Sept. 1967; Pres., U.N. Administrative Tribunal. b. 1910; Educ.: Madras. Joined the Bar, 1935; courted jail in the freedom movement; Editor, Labour Law Journal; one of the panel of Indian Lawyers who defended Indian nationals arrested in connection with the I.N.A. Movement in Singapore and Malaya; M.P., 1950; M.P., Lok Sabha from Tanjore, 1952 and '57; was Secy., T.N.C.C.; Leader, Indian Delegation to 42nd Session of I.L.O. Cfce., Geneva; Delegate to: the U.N. Gen. Assembly, 1953, '55, '56, '58-60 and 1961; Secy., Congress Party in Parliament, 1954-55; won the Nehru Award on a travellogue in Soviet Union; Min. for Industries and Law, Madras, 1957-67. Address: New Delhi.

VENKATARAMAN, S. R., B.A., B.L., Member, Servants of India Society, since 1929; Vice-Pres., Indn. Council of Social Welfare; Seey., Indn. Council of World Affairs, Madras Br.; Dlgte. U.N. Cfce., Non-Govtal. Organs., Colombo, 1956; Mmbr., Madras State Tribal Advisory Council; Vice-Chairman, Guild of Service; runs seven schools with 2,500 pupils and 80 teachers for Backward and tribal people in Kerala, Andhra and Tamil-

nad; Secy.: Gokhale Centenary (1966); Rt. Hon. V. S. Srinivasa Sastri Centenary (1969). Publications: (Tamil) Lives of Ranade, Gandhiji, and Mrs. Besant (English). Temple Entry Legislation, Harijans Through the Ages, The Pavement Dweller, Two South Indian Tribes, State Responsibility for Social Work, Sastris Speeches and Writings (two vols.). Address: Servants of India Society, Madras 14.

VENKATESWARLU, Bulusu, M.A. (Philosophy and Telugu Literature), Sahitya Akademi Award (1956), Gadya Kavi Sarva Bhauma, Telugu Writer. b. April 5, 1908; Educ.: Madras. Joined the staff in Telugu Deptt., P. R. Coll., Kakinada; delivered lectures all over Andhra Pradesh on Gita, Upanishads & Hinduism. Publications: Life of Swami Vivekananda (Telugu); Life of Swami Ram Tirtha; Bharatiya Tattva Sasthramu—five volumes (Translation of President Dr. S. Radhakrishnan's Indian Philosophy): also translated and published works of Dr. Radhakrishnan; Autobiography in Telugu, and Sri Rama Stava Sudha-Lahari. Address: Kamaladevi Street, Gandhinagar, Kakinada, Andhra Pradesh.

VENKATESWARLU, Dr. K., M.Sc. D.Sc., F. Inst. P., F.A.Sc., Scientist; Post-Graduate and Research Prof. of Physics, P.S.G. Arts Coll., since Jan. 1970. b. June 3, 1916, at Nuzvid, Krishna District; Educ.: Nuzvid; Andhra Christian Coll., Guntur; Univ. Coll., Waltair; Metcalfe Gold Medal for the best thesis for M.Sc. in Physics, 1939. Fellow of the Instt. of Physics, London, 1947; Spl. Officer for Ground Water Resourc. s, Madras State, 1951-53; Fellow, Indian Academy of Sciences 1957; Prof. and Head of the Dept. of Physics, Annamala, Univ., 1955-62; Prof. and Head of the Deptt. of Physics, Kerala Univ., 1963-69. Publications: About 180 research papers in scientific journals. Address: 29/23-23, Tad. palli Vari St., Suryaraopet, Vijayawada 2; P.S.G. Coll. of Technology Campus, Coimbatore 4.

VERGHESE, Boobli George, B.A. (Cantab.), Editor, Hindustan Times. b. June 21, 1927; Educ.: Doon School, Dehra Dun; St. Stephen's Coll., Delhi; Trinity Coll., Cambridge. Special Correspondent and Asstt. Editor, The Times of India, 1949-66; Information Advices to the Prime Minister, 1966-68. Address: The Hindustan Times, New Delhi.

VERMA, Dr. Ajit Ram, M.Sc., Ph.D., D.Sc., F.N.I., Dir., National Physical Laboratory, New Delhi, since May 1965. b. Sept. 20, 1921; Educ.: Allahabad and London Univs. Served Delhi Univ., 1947-50 & 1955-59; British Council Scholar, London Univ., 1950-52; I.C.I. Research Fellow, London Univ., 1952-55; Prof. and, Head, Deptt. of Physics, Banaras Hindu Univ., 1959-65; member, Board of Editors of Intn'l Journals of Solid State Communications & Crystal Growth. Publications: 40 research papers in Intn'l Journals of physics; Crystal Growth and Dislocations published by Butterwords, London. Polymorphism and Polytypism in Crystals, John Wiley, New York. Address: Director, National Physical Laborotary, New Delhi-2.

VEZHAVENDAN\*, Karani, B.A., B.L., Minister for Labour, Govt. of Tamil Nadu, since Aug. 1969. b. March 21, 1940; Educ.: Pachaiyappa's Coll. and Law Coll., Madras. Advocate, Madras, since 1962; is a syriter; elected M.L.A., Tamil Nadu, 1967. Publications: Vezhavendan Kavithaigal (Collection of Poems); Nenjil Pobtha Nila (Collection of short stories); Kazhagama Congressa (Essay); various essays & Tamil poems in magazines and newspapers. Address: 24, Mada Church Street, Mandavalli, Madras 28.

<sup>\*</sup> It is reported that he has resigned.

VIRA, Dharma, I.C.S. (Retd.), Governor of Mysore since Oct. 23, 1969. b. Jan. 20, 1906; Educ.: Lucknow and Allahabad Univs.; London School of Economics and Political Sc. Joined I.C.S., 1930; worked in different capacities under the Govt. of U.P., 1930.41; Dy. Controller of Imports & Exports, 1941; Dy. Secy., Indus. and Civil Supplies Deptt., 1944-45; Textile Commr., 1945-47; Jt. Secy. to Cabinet, 1947-50; Principal Pvt. Secy. to Prime Min., 1950-51; Commercial Adv., High Comm. in London, 1951-53; Amb. to Czechoslovakia, 1954-55; Secy., Rehab. Min., 1955-62; Secy., Min. of Works, Housing and Rehab., 1962-63; Chief Commr., Delhi, 1963-64; Cabinet Secy. and Secy. to the Council of Ministers 1964-66; was Secy., Deptt. of Atomic Energy & Chairman, Atomic Energy Commission; Governor of: Punjab & Haryana, 1966-67; West Bengal, 1967-69; is associated with many social & philanthropic associations; Address: Raj Bhavan, Bangalore.

VISSANJI, Pratapsinh Mathuradas, Businessman. b. March 19, 1916; Educ.: New High School, Bombay. Dir., Ahmedabad Advance Mills Ltd.; Western India Match Co. Ltd.; A.C.C. Ltd.; Bombay Burmah Trading Corp. Ltd.; Great Eastern Shipping Co., Ltd.; Khatau Makanji Spg. & Wvg. Mills Ltd.; Wallace Flour Mills Co. Ltd.; Premier Automobiles Ltd.; Bombay Dyeing & Mfg. Co. Ltd.; Tata Chemicals Ltd.; Tata Hydro-Electric & Power Supply Co. Ltd., etc. Address: Residence: Sir Mathuradas Vassanji Road, Andheri; Office: 9, Wallace Street, Fort, Bombay.

VISWANATHAN, Venkata, B.Sc., I.C.S., Governor of Kerala since May 1967. b. Jan. 25, 1909; Educ.: Central Coll., Bangalore; Univ. Coll., London; Balliol, Oxford. Joined I.C.S., 1931; held important positions in U.P. Govt., 1931-40; Under-Secy., 1940 & Dy. Secy., 1942. Govt. of India; Secy. to Rep. of the Indian Govt. in Ceylon, Colombo, 1943; Addl. Dy. Secy. and Secy. to Rep. of the Indian Govt. with the Govt. of Burma, 1944; Registrar, Co-cp. Soc.s, U.P., 1946; Dist. Magistrate, Dehra Dun, 1947; Dy. High Commr. for India in Pakistan, 1947-48; Chief Secy. and Adv., Madhya Bharat, 1948-50; Chief Commr., Bhopal, 1950-52; Jt. Secy., Min. of States and Min. of Home Affairs, 1952-58; Spl. Secy., Min. of Home Affairs, 1958; Secy., Min. of Home Affairs, Nov. '61-Nov. '64; Chief Commr., Delhi 1964-66; Lt. Governor H.P., Feb. '66-April '67. Address: Raj Bhavan, Trivandrum.

VYAU de LEGARDE, H.E. Count Jean, Ambassador of France in India, since April 1970. b. 1908; Educ.: Ecoles des sciences politiques; is "licencie en droit". Entered diplomatic career in the French Embassy in Warsaw, 1933; joined the Min. of Foreign Affairs in Paris, 1939; subsequently held several senior diplomatic assignments; is an officer of the Legion d'honneur and des lettres et des arts. Address: 2, Aurangzeb Road, New Delhi 11.

WADIA, Ardeshir Ruttonji, Hon. D.Litt. Barat Law, Padma Bhushan (1961), President, Indian Council of Social Welfare for 1968 & 1969. b. June 4, 1888; Educ.: St. Xavier's High School and Wilson Coll., Bombay; Middle Temple, London; St. Catherine's, Oxford; Fitzwilliam Hall, Cambridge. Prof., Wilson Coll., Bembay, 1914; Lecturer in Psychology, Bembay Univ., 1914-16; Prof. of Philosophy, Mysore Univ., 1917-42; D.P.I., Mysore (Retd.); Principal, Victoria Coll., Gwalior (1946-49); Pro-Vice-Chancellor, M.S. Univ., Baroda, 1949-52; Dir., Tata Institute of Social Sciences, 1953-62; Indian Delegate to UNESCO Cfce., 1952 & 1954; M.P. (Rajya Sabha), 1954-66; member, Univ. Grants Commission,

1960-68. Publications: The Ethics of Feminism: Pragmatic Idealism (Contemporary Indian Philosophy), Zoroaster, Religion as a Quest for Values; The Future of English in India; The Philosophy of Mahatma Gandhi; Democracy & Society. Address: Kalpana, 96, Netaji Subhas Road, Bombay.

WADIA, Neville Ness, Chairman: Nowrosjee, Wadia & Sons (Private) Ltd.; The Bombay Dyeing & Mfg. Co. Ltd.; National Peroxide Ltd.; Sturdia Chemicals Ltd.; Botanium Ltd. b. Aug. 22, 1911; Educ.: Malvern & Trinity, Cambridge. Address: C/o Neville Wadia Pvt. Ltd., 72, Pedder Road, Bombay 26; Office: Neville House, Ballard Estate, Bombay 1.

WADIA, Smt. Sophia, Padma Shri (1961), Editor, The Aryan Path, 41st Vol., and The Indian P.E.N., 36th Vol., Bombay. b. Sept. 13, 1901; Educ.: Lycee Moliere, Paris; Columbia Univ., New York; School of Oriental Studies, London. Associate of The United Lodge of Theosophists; Lecturer, Founder-Organiser of the P.E.N. All-India Centre; a Founder and Pres. of the Indian Inst. of World Culture, Bangalore; Vice-Chairman, Buddha Jayanti Charities Society; and worker in women's educl., social and cultural movements. Publications: The Brotherhood of Religions; Preparation for Citizenship. Address: 40, New Marine Lines, Bombay 20 BR.

WADUD, Mohammed Abdul, Industrialist, b. January 19, 1921; Educ.: Senior & Higher Cambridge, B.Sc., Royal Institute of Science, Bombay. Director: Tata Industries Private Ltd.; Tata Oil Mills Co. Ltd.; Lakme Limited; Merck Sharp & Dohme of India Ltd.; etc. Vice-Chairman and member. Working Cttee., Processed Foods Export Promotion Council, New Delhi; Member: Development Council for Oils, Detergents & Paints. Govt. of India; Governing Council of the National Design Institute, Ahmedabad; Tea Board; The Ad Hoc Cttee. for Nirodh Marketing Programme; Pres.: Indian Soap & Toiletries Makers' Assoc., Calcutta; All India Food Preservers' Assoc.; Representative of Tomco on the Vanaspati Manufacturers' Assoc. Address: Office: Bombay House, Bruce St., Fort, Bombay 1; Residence: 17, "Mayfair", Veer Nariman Road, Churchgate, Bombay-20.

WAGLE, Nityanand Mangesh, M.A. M.Sc. (Econ.), Padma Bhushan (1970), Managing Director, Greaves Cotton & Co. Ltd., since 1957. b. Aug. 16, 1914; Educ.: Univs. of Banaras, Bombay, London and Oxford. Entered I.C.S., 1938; served in the Dist. of Gujarat, 1938-42, and in the Secretariat at Bombay, 1942-47; retired from the I.C.S., 1947; Asstt. Manager, Greaves Cotton & Co. Ltd., 1947-50; Director, 1950-57; Chairman: Crompton Greaves Ltd; State Industrial and Investment Corporation of Maharashtra; Director: Bombay Dyeing & Manufacturing Co. Ltd., Bokaro Steel Ltd., Central Bank of India Ltd., Tata Hydro Electric Power Supply Co. Ltd. and other companies; elected Pres., Bombay Chamber of Commerce and Industry, 1961 & 1968; Pres., Assoc. Chambers of Commerce and Industry of India, 1968-69; Vice-Pres. and Chairman, Western Region, Employers' Federation of India. Address: 17A, Carmichael Road, Bombay 26.

WANCHOO, Niranjan Nath, M.A. (Punjab), O.B.E. (1945), I.C.S. (Retd.), Chairman, Bureau of Industrial Costs & Prices, Min. of Ind. Devpt., Govt. of India, since April 10, 1970. b. May 1, 1910; Educ.: Govt. Coll., Lahore; King's Coll., Cambridge. Joined the I.C.S., 1934; served in Bihar and Orissa; later in the Commerce and Food Deptts. of the Govt. of India; Imperial Defence Coll., London, 1947; D. G. of Ordnance Factories, 1948;

Jt. Secy., Min. of Defence & Conlir.-Gen. of Defence Production, 1948-57; member, Univ. Grants Commn., 1958-1961; Secy., Min. of Fin. (Deptt. of Expenditure), 1958-61; Iron & Steel, July '61-Aug. '66; Ind. Devpt., Internal Trade and Co. Affairs, Aug. 1966-Jan. 1970. Address: 4, Akbar Road, New Delhi.

WANKHEDE. Sheshrao Krishnarao, B.A., Bar-at-Law, Minister for Finance, Law, Judiciary & Small Savings, Maharashtra, since March '67. b. Sept. 24, 1914; Educ.: Morris Coll., Nagpur; called to the Bar, 1937. An educationist, sportsman and agriculturist; unanimously elected Chairman, Nagpur Dist. Council, 1938-48; jailed for individual Satyagraha, 1940; member, Nagpur Univ. Exec. Council, 1947; Mayor of Nagpur Corpn. for three terms; Indian rep. at the F.A.O. Cfce., 1953; a member, Indian Central Cotton Cttee. for 12 years; Ex-Vice-Chairman, M.P. Electricity Council; Dy. Speaker, M.P. Leg. Assembly, 1952; was Dy. Speaker in enlarged Bombay State's first Assembly; Min. for Plng., Devpt., Electricity and Industries, Bombay State, 1959-60; Min. for Fin., Maharashtra, 1960-62; Min. for Industries, Law & Judiciary, 1962-63; Minister for Finance. Dec. '63-Feb. '67. Address: Sachivalaya, Bombay 32.

WARRIER, P. Krishnan Kutty, Managing Trustee, Arya Vaidya Sala, Kottakkal, since 1953. b. 1921 at Kottakkal; Educ.: Rajah's High School; Arya Vaidya Pathasala. Has been with the Arya Vaidya Sala since 1947; is its Addl. Chief Physician; member, Exec. Cttee., All India Ayurvedic Congress; a Vice-Pres., Kerala Ayurveda Mandalam; Kerala State Ayurvedic Advisory Cttee.; has developed the Arya Vaidya Sala Kathakali troupe into one of the best in the country. Address: Arya Vaidya Sala, Kottakkal (Kerala State).

YAGNIK, Bhanushankar Manchharam, Minister for Prohibition, Maharashtra, since March 1967. b. Feb. 1, 1915; Educ.: Saldi (Bhavnagar Dist.) and Bombay. Gen. Secy., B.P.C.C., 1953-60; Pres., B.P.C.C., 1960-63; member A.I.C.C. since 1950; founded Bombay Youth League, 1930; associated with various social organisations; elected to the Bombay Municipal Corporation, 1938 and 1948; elected M.L.A., Bombay from Fanaswadi, Girgaon and Kumbharwada Constituencies, 1952 & 1957; re-elected M.L.A., Maharashtra from Kumbharwada (Bombay) Constituency, 1962 and 1967; Edited and published Audicha Udaya monthly; was on the editorial staff of Yug Prabhav & Sangam Gujarati and Hindi Weeklies. Publications: Hruday Mantham (Experiences in Jail in Gujarati). Address: Devgiri, N. Dabholkar Road, Malabar Hill, Bombay 6.

YANNAKAKIS, H.E. Mr. John, Ambassador of Greece to India. b. 1919 in Athens. Entered diplomatic service as Attache, 1947; Diplomatic Secy. to the Min. of Foreign Affairs, 1947-50; Vice-Consul in: Alexandria, 1950; Suez, 1950; Second Secy., Min. of Foreign Affairs, 1955-53; with the Min. of Foreign Affairs, 1956-57 & 1963-64; First Secy., Royal Greek Embassy, Rome, 1953-56; Consul in Frankfurt & Munich, 1957-59; Consul-General in Cairo, 1959; served as either Secy. or member of Greek delegations to U.N. General Assembly or Security

Council; Head, Greek delegation during economic negotiations in Rome, 1967; Head, Prime Minister's Diplomatio Bureau, Min. of Foreign Affairs, 1968; awarded several decorations like Greek Officer of the Order of the Phoenix, Greek Officer of the Order of George I, etc.; Italian-Cavagliere Ufficials, etc.; Egyptian-Grand Commander of the Order of the Merit. Address: Royal Greek Embassy, 188, Jor Bagh, New Delhi 3.

YASHPAL, B.A. (Lahore), Padma Bhushan (1970), leading Hindi writer. b. Dec. 3, 1903, at Ferozepur Cantt.; Educ.: Gurukul Kangri and National Coll., Lahore. Courted jail in the freedom movement; started Viplava, a monthly magazine; awarded: Dev Puruskar (1955); 'Sahitya Varidhi' in 1966 by Sahitya Sammelan; Nehru Award (1969); Mangla Prasad Paritoshak (1969). Publications: Numerous short story collections, novels, travel books; book of reminiscences, humorous essays; One Act Plays and socio-political books; his works have been translated into all Indian and some foreign languages; e.g., Divya, Amila, Deshdrohi, Manushya Ke rup, Jutha Sach; Pinjare-ki-Uran, Chitra ka Shirshak, Gyandan, Abhishapt; Gandhivad Ki Shav Pariksha (Post-mortem of Gandhism). Address: Res.: 335-B. Mahanagar, Lucknow; Office: 'Viplava', 21, Shivaji Marg, Lucknow.

YASIN, H.E. Shaikh Anas Youssef, Ambassador of Saudi Arabia to India. b. May 1, 1934, in the city of Taif; Educ.: Victoria Coll., Cairo; Univ. of California, Berkely. Appointed as head of the Conferences & Islamic Affairs, 1960; transfered to the foreign office with the rank of Ambassador, 1963; appointed Chief of Public Relations Office in New York; Ambassador and alternative Rep. of Saudi Arabia to U.N., 1966-67. Address: 1, Eastern Avenue, Maharani Bagh, New Delhi 14.

ZAKARIA, Dr. Rafiq, M.A. (1st class), Ph.D. (London), Bar-at-Law, Chancellor's Gold Medalist (Bombay Univ.), Minister for Public Health & Wakfs., Maharashtra, since March 1967. b. April 5, 1920; Educ.: Anglo-Urdu High School, Poona; Ismail Yusuf Coll. & Govt. Law Coll. Bombay; London Univ. and Lincoln', Inn. Political correspondent on Indian affairs for the 'Observer' (London), 1947-48; Pres.; London Majlis, 1945-47; Chairman, Federation of Indian Students' Soc., in British Isles and Europe, 1947; Pres.: Indo-Arab Soc.; Maharashtra Coll. of Arts & Sci.; Chairman: Indian Unity Centre; Founder and Pres., Maulana Azad Coll. of Arts, Sc. & Commerce, Aurangabad; has travelled widely; has written for several Indian and foreign newspapers and broadcasts often; nominated M.L.C., Maharashtra, June, 1960; apptd. Cong. Chief Whip to the Maharashtra Leg. Council, July 1960; M.L.A., Maharashtra Leg. Council, M.L.A., Maharashtra rashtra from Aurangabad constituency, 1962 & 1967; member: Exec. Cttee., M.P.C.C., and A.I.C.C.; Dy. Min. for Bldgs. & Communications, Maharashtra, 1962-64; is Advocate, Bombay High Court; Indian rep. to the 20th session of the U.N. Gen. Assembly, Oct. 1965; Min. for Urban Devpt. & Wakfs, 1964-67. Publications: A Study of Nehru; Razia: Queen of India; Rise of Muslims in Indian Politics. Address: "Rylestone," 8-B, Carmichael Road, Bombay 26.

### GENERAL INDEX

					PAGE		PAG
		A				All-India Corporations	70
Aarey Milk Colo	ny				461	Exportana Chamban	164
Absenteeism (La	bour)				304	Former Dlag	360
Accidents (Labor	ur)				304	, Harijan Sevak Sangh	401
,, (Railw	rays)				266	", Manufacturers' Organisation	475
Administration of	f Justice				154	,, Organisation of Industrial Employers	402
Administrative I	Personnel, C	entral G	ovt		-585		3, 58
***			inder each	State)		" Shippers Council	402
,, S	taff College				380	" Trade Union Congress	402
Aerodromes (Civi	il Aviation)				162	" Women's Conference	402
Aeronautical Con					162	Alloy Steel Project (G.I.U.)	277
Aeronautics (Ind	ia) Ltd.	• • 1			13	Aluminium (Non-Ferrous Industry)	91
	Hindustan				274	,, Company Ltd., Bharat	272
Afro-Asian Rura	Reconstru	ction Or			594	Ambar Charkha (Cottage Industries)	79
Agencies, Social					248	Ambassadors, Indian	585
Agency for Inter						"Foreign	590
to India)			- 1911 W. T. L. C.		253	Amendment of the Constitution	160
Agra University				PL. B	553	American Studies Research Centre	380
Agreements, Trac	le & Paym	ent (Im	port & Ex	port		Amravati District	493
Trade)					229	Amreli District	419
Agricultural Edu	cation				27	Andaman and Nicobar Islands	374
	it Societies		. 2000.		118	Administrative Personnel	375
" Marl	ceting Socie	ties			118	Andhra Paper Mills	282
	es Commissi				23	,, Pradesh State Corporations	170
		ocieties	(Coopera	tive		" Pradesh	375
	ovement)			• •	119	Administrative Personnel	382
	uction (See					Associations, Institutions, etc	380
	inance Corp				165	Classified List of Trades & Professions	598
The state of the s	ce Universi	STATE OF THE PARTY			509	Commercial Firms	596
	tors (Misc.				201	Fisheries	66
	ersities 379			9, 526		Govt. Ind. Und.	282
Agriculture				50:0°	26	Legislative Assembly	332
Foodgrains				• •	26	" Council	334
Tenancy Refor			Market 198		- 28	Universities	379
Ahmedabad Distr					419	Animal Diseases (Livestock)	31
Associations, S				• •	423	Animals (Statistics)	32
Classified List		nd Profes	ssions		620	Annamalai University	538
Commercial Fire			1 10 10 10 10 11 11 11 11 11 11 11 11 11	** /	618	Antibiotics Ltd., Hindustan	275
Ahmednagar Dist					493	Apprentices Act, 1961	303
Aid to India, Fo			0.00		250	Archaeological Survey of India	575
"""U.	S			***	253	Area & Population (States & Union Territories) 12	200
Aircraft				N. S.	163	Area & Production (Agriculture)	26
Aircraft Manufac					13	Arecanut Industry	71
Air Force, Indian				15,		Arjuna Awards	294
, India					263		574
AIR Stations (Br	oadcasting)			313,		Art Silk	204
Air Transport (Ci	vil Aviation	1)		1.00	161	Asbestos (Mines & Minerals)	196
Airlines Corporati		- C			161	Ashoka Hotels Ltd	272
Airway Companie				1	263	Assam Gas Co. Ltd. (G.I.U.)	282
Akhil Bhara Hin	du Mahasal	bha			360	", Oil Company	210
Akola Pistrict				••	493	" State	383
Alcohol Industry					70	Administrative Personnel	388
Aligarh University				400	553	Associations	387
Alkali Industry					189	Govt. Ind. Und	232
Allahabad Univer			at his selection		553	Legislative Assembly	335
THUMANU CHIVE	J	TOTAL CONTRACTOR					

	PAGE		PAGE
A—(Contd.)		Bharat Sewak Samaj	402, 481
	900	Bharatiya Adimjati Sevak Sangh	403
	389	" Jan Sangh	361
	387	" Natya Sangh	403
	. 170	" Vidya Bhawan	486
	332	Bhavnagar District	420
Associations, Institutions etc. (See under each State	100	Bhir District	494
	. 402	Bhilai Steel Project (Govt. of India Undertaking	s) 277
	. 54	Bhoodan Movement	249
	. 55	Bicycles (Misc. Industries)	200
	. 56	Bihar State	9 391
	. 55	,, ,, Administrative Personnel	398
A 111 D CO: 1 11. T/3	. 85 . 472	" Associations	397
		" " Corporations	170
	. 576	", ", Govt. Ind. Undertakings	282
	700	", ", Leg. Council	335
	. 183	" " Universities	396-97
	. 184	,, ,, Vidhan Sabha	367
	. 188	Biological Science Societies (Research)	51, 52
	. 161	Birla Research Institute for Applied Sciences	453
	. 15	DI: 136 1 4	400
A 1 . D	. 452		077
A	289	7	
Ayurved University, Gujarat	. 425	D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		D 1 C 1D1	915 979
В			215, 272
Backward Classes	. 62	Bombay Associations	471
Balance of Payments (Import & Export Trade) .		" Benevolent Institutions	477
Balimela Dam	000	" Chambers of Commerce	477
Balimela Hydro-Elec. Project	F10	" Classified List of Trades & Professions	700-775
Balkan-Ji-Bari	407	" Commercial Firms	631-700
Banaras Hindu University		" Cultural and Scientific Institutions	480
Banaskantha District	410	" Educational Institutions	486
Banasthali Vidyapith	F01	,, Industries Association	473
Bangalore Trades and Professions	-0.4	" Labour Institute	481
" University		" Management Association	.1 481
Banking	70-	" Missionary and Religious Societies	489
Barauni Thermal Power Station	004	" Municipal Corporation	467
Baroda District	400	" Port	40
" Trades & Professions	200	" Railway Personnel	501
" University		" University	470
Bauxite (Mines & Minerals)	7.00	" Vigilance Association	482
Beas Project (Irrigation)	0.4	Bonus (Labour)	307
Bee-keeping Industry (Cottage Industry)	00	Border Roads (Roads)	164
Benevolent Institutions in Greater Bombay		Botanical Survey of India	575
Rarhamnur University	519	British Council, The	487
BEST	470	" Institute of Engg. Technology	487
Rhabba Atomia Passarah Contra		Broach District	420
	34, 506	Broadcasting	311
Phogology University		Budget (Central), 1970-71	256
Rholero Nangal Project (Tomingtion)		" (Railways), 1970-71	270
Rhandara District		Budgets (States), 1970-71	288
Bhandarkar Oriental Peasanh Tustitut		Builders' Association of India	474
Phonot Aluminium Co TAI	SHOW AND REAL PROPERTY.	Buildings Construction Corpn. Ltd., National	167
Forthmorora TtJ		Buldana District	• 494
Floatronias Ital	A STATE OF THE PARTY OF THE PAR	Bullion	176
Heavy Fleetricals Ttd		Bulsar District	420
		Burdwan University	561
" " Plate and Vessels Ltd	272	Burmah-Shell Refineries Ltd.	• 211

		1	PAGE		i yana a	PAG
• C interest				Coal & Lignite (Mines and Minerals)		19
Calcutta Associations		Mest !	563	" Development Corporation, National		16
" Commercial Firms		811	-825	" Mines Labour Welfare Fund	1000	30
" List of Trades & Professions	appen (	825	-848	" Washeries		28
Municipal Comparation			561	Cochin Port	STEEL!	4
Port			41	,, Refineries Ltd	400	27
" University			561	Code of Discipline (Labour)	100	30
Coliout Tinimoraites			441	Coffee Board		, 57
Calter Oil Pofining (India) Ital			211	" Industry		7
Cancer Society, Indian			482	Coimbatora Commercial Firms		80
Canital Manlat			109	Manday and Dartage		80
" Issues			111	Coin Pound		57
	(Publi			To divotan		7
700			258	Collissian Ci-	•	28
CADI			403	Commercial Associations in Greater Bombay	•	47
0			82	D 1 (D 1: )	• •	10'
					•	31
Cashew Development Corporation, Kerala S			172	Tr: 1 (1 ' 10 1 m 1 ' 0 1	•	
" Export Promotion Council	•		442	Commission for Scientific & Technical Terminology		596
" Nut Industry	• •		72		1000	144
Cattle (Livestock)	kom je		29	,, on Labour, National		300
Caustic Soda			189	Communications Service, Overseas	AFRE	39
Ceiling on Holding (Agriculture)			28	Communist Party of India	100	362
Cement Industry	• ••		73	,, ,, ,, (Marxist)		361
" Corporation of India Ltd			165	Community Development Projects and Panchaya	its	314
Census (Population), 1961	•		123	Concessions for Tourists		
Central Board of Film Censors (Film Indust	ry)	85,	581	Congress, Indian National	362,	
" Board of Secondary Education	. 1	43,	574	Conservation (Forests)	•	26
" Bureau of Investigation			580	Constitution of India	•	157
" Cooperative Banks			118	Consular Offices in India, Foreign		591
" Drugs Std. Control Orgn			579	Consulates-General, and Consulates	**	588
" Food Tech. Research Instt			575	Consumer Price Index Numbers	••	256
" Govt. Adm. Personnel		71-		Controller of Imports & Exports		578
" Inland Fisheries Research Instt			577	Cooley Fund (U.S. Aid)	•	254
Land Development Banks (Coope	rative					118
Movement)			118	,, Credit Societies (Tables)	120	0-22
" Machine Tool Institute			509	" for American Relief Everywhere	•	403
" Railway	. 20	67,	501			118
" Road Transport Corporation Ltd.			166			105
Schools	DVA DOM		143	Copper		195
Cille Board		98,	579			165
Social Walfare Board			249			170
Training Institute for Instructors			487			301
Worshanging Corneration		ON IS	166			76
Water & Demon Commission			581			81
Chambal Hydel Projects			450	Cotton	(00)	219
Chambers of Commerce in Bombay		1	477	Cottonseed Oil		225
			194	Council of Applied Economic Research, National		407
Chanda District			189	,, of Educational Research & Trainin	40	143
Chemical & Pharmaceutical Industry			281	CO.: LiCo and Industrial Descend	52.	
Chemicals Development Co. Ltd. (G.I.U.)			306			
Chief Labour Commissioner (Labour)		47,			100	47 154
Child Welfare			84		or no Ca	293
Children's Film Society (Film Industry)			103			
Chillies (Spices)	~	73,				303
Chittaranjan Locomotive Works (G.I.U.)			300000000000000000000000000000000000000			194
Chola, Koyna Projects		10000	459 105	Outour way	n	480
Chromite (Mines & Minerals)			195			570
Cities and their Population			125			286
Civil Aviation	E William	WALLEY.	161	Custack Holl & Steel Houders Bed.	70x X	

		PAGE	PAGE
D			Educational Institutions (See under individual States and Districts)
Dadra and Nagar Haveli		412	Educational Statistics 370
Dairy Research Institute .National .	. 100	578	Elections, General (1967) 327
		30	Electric Power Development 152
	100	409	Electronic Corporation of India 55, 273
The control of the co		35	Elephanta Caves (Tourist's Guide) 7
		581	Ellora Caves (Tourist's Guide) 7
	- 11111	420	Embassies Abroad, Indian 585
		397	,, in India, Foreign 590
The state of the s		6	Emergency Provisions (Constitution of India) 160
		301	Emigration Laws (Indians Overseas) 287
THE RESIDENCE OF THE PARTY OF T	•	259	Employees' Provident Fund 300
T	to A service	14	" State Insurance Corporation 304, 573
" Institute of Work Study		555	Employers' Federation of India 474
" Services		574	Employment & Training (Labour) 302
11 1 1 1 1 D		399	,, Exchanges 302
Associations Societies etc.		409	in Foreign Companies (Labour) 303 ,, for the Handicapped (Labour) 307
Classified Trades and Ductaraiana		401	' 35' (m 11 )
Commonaial Firms		607	Engineering and Technological Societies (Research) 51, 52
Municipal Composition		600	C T-1 TF
TT		400	D
Demographic Training & Research Centre		482	Engineers India Ltd. (G.I.U.)
Denotified Communities	C diameter	63	Una Deferen
Dental Education		48	Estimates Committee (Lok Sabha)
Donasit Insurance Commentium		166	Exchange Controls, Foreign 177
Deposits (Realring)	A STATE OF		Excise Duty on Cotton Fabric (Table) 219
Development in Trade Police		107	Export and Import Trade 226
Conneil for Automobiles		227	,, ,, of Metals and Minerals 198
in Evahance Control		184	,, Credit and Guarantee Corpn. Ltd 166
Projecta Communita		177 314	,, Promotion (Import & Export Trade) 230
Dhulia District		494	,, Promotions (Food) 23
Dibrugarh University		387	,, ,, (Foreign Exhange Controls) 178
Discal Loometine Wesley V		273	Express Highways (Roads) 164
Directorate of Advertising & Visual Publici	ty	245	Million and the same of the second of the se
,, ,, Radiation Protection .	1507(1	56	F. F. C.
" General of Factory Advice Se		30	Factory Statistics (Labour) 297
(Labour)		307	Family and Child Welfare (Social Welfare in
" " Health Services .		579	India) 247
" " Shipping		584	Family Planning 151
" " " Supplies & Disposa	ls	573	" , Association 478
Divine Life Society		555	Fatepur Sikri (Tourist's Guide) 7
Dockyard Apprentice School	900 TA	487	Federation of Co-operative Sugar Factories Ltd. 105
Documentaries (Film Industry)		84	,, Indian Chambers of Commerce and
Dravidian Progressive Federation (D.M.K.	) O in	362	Industry 404
Drug Research Laboratories		283	Fertiliser Corporation of India Ltd 273, 583
Drugs and Pharmaceuticals		191	Fertilisers (Chem. & Pharm. Industry) 189
" " Ltd., Indian .		278	Fertilisers & Chemicals Travancore Ltd 273
"Dufferin," Training Ship	200 Kg. 1	487	" & Manures (Food) 21
Durgapur Steel Plant		277	Fibre Industry (Cottage Industries) 81
Duty on Cotton Fabrics (Textile Industry)		219	Film Archive of India 84
The state of the s			" Awards 296
E			" Censors Board 85
Cast-Coast Ports		19	" Finance Corporation 166
Castom Pailway		42	" Industry 84
ducation	267,		" Institute of India 84, 491
& Research (Foresta)		141	Films Division 84
,, & Research (Forests)	**	25	Finance Corporations, State 170

	PAGE		PAGE
F—(Contd.)		Gorakhpur University	553
Finance, Public	256	Government Ceramic Factory	282
Finance Corporation of India, Industrial	167	Government Industrial Undertakings	271
Fine Chemicals	191	State-Owned and State Aided Undertakin	
Fisheries	65	Government of India Personnel	571
Training	66	" " Constitution	157
Five-Year Plan, Fourth	319	" " Trade Commissions	589
Fixation of Ceiling (Agriculture)	28	, Precision Instruments Factory	286
Flood Control and Soil Conservation (Irrigation)	34	" Sandalwood Oil Factories	284
Flying Clubs (Civil Aviation)	162	" Silver Refinery	278
Food •	20	" Soap Factory	285
	22, 166	Gram Sevaks and Sevikas (Awards & Prizes)	293
Food Technological Research Instt	53	Greater Bombay	466
Foodgrain Policy	24	Associations, Institutions etc	471-489
Foodgrains (Agriculture)	26	Corporation	467
Footwear Industry (Hides, Skins & Leather)	88	Gujarat Ayurved Univ	425
Ford Foundation	404	Gujarat State	413
Foreign Aid to India	250	Administrative Personnel	426
A 4 8 T. 1:1:4: - (T-4	10 7500000	Ahmedabad Municipal Corporation	419
ment Position)	180	Associations, etc	423
" Business Investments	182	Classified List of Trades & Professions	620
, Consular Offices in India	591	Commercial Firms	618
Evolungo Controls	177	Districts	419-23
Manual Amenaica (The Decay)	245	Fisheries	66
The de (Import and Export Trade)	231	Govt. Ind. Undertakings	282
,, Trained Scientific & Technical Personnel	147	Housing Board	418
Forests	24	Irrigation Projects	417
Forward Bloc, All India	360	Legislative Assembly	336
Fourth Five Year Plan	319	Ports	42
(Education)	7 40	University	419
,, ,, (Social Welfare)	240	Gujarat State Corporations	171
Freight Investigation Bureau (Shipping Industry)	206	Gujarat Vidyapith	419
Fruit (Agriculture)	27	Gur and Khandsari (Cottage Industries)	81
Fuel Research Institute, Central	20	Gypsum (Mines and Minerals)	195
Fundamental Rights (Constitution of India)	157	And the second s	
Fundamental regular (constitution)		The state of the s	
G		Haffkine Institute	482
	14, 290	Handicrafts	83
Gananti y II wards	36	" Board, All-India	579
Gandak Project (Irrigation)	440	D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Gandhi Ashram		Handlooms Exports Corpn. of In	
TRIIUIII DIIIdida Itidiii		Handloom Board, All-India	578
Garden Reach Workshops Ltd. (Govt. Ind. Und.)		Handlooms (Cottage Industry)	79
Gauhati University	00=	Handmade Paper Industry	80
General Elections (1967) ·· ··	10	Hardwar (Tourist's Guide)	* 7
General Insurance	583	Harijan Sevak Sangh, All India	401
Geological Survey of India	100	Harold Laski Institute of Political Science	423
Gilt Edged Market (Capital Market)	100	Haryana	427
Ginger (Spices)	E0	Adm Porconnol	430
Glass & Ceramic Research Instt	98	State Compositions	171
Glass Industry	100	Tinivorcities	430
Gliding Centres (Civil Aviation)	400	Widhen Cobbe	337
Goa, Daman & Diu		Health, Public	43
Administrative Personnel		Heavy Electricals Ltd. (Govt. Ind. Undertakin	
Legislative Assembly		E-er Corne (Cort Ind Undertaking	(8) 274
Trades & Professions		Vahiolog Factory (Govt. Ind. Underta)	kings) 274
Goats (Livestock)		Water Plant	
Gold & Silver (Bullion)		Hides, Skins and Leather	87
Mining Undertakings, Kolar	. 280	Hides, Dains and Lication	1 12 N X 1 1 1 1

PAGE		D
H—(Contd.)	Indian A	PAGE
	Indian Army	14, 574
	Constitution	
A	Cotton Wills Endanting	
Highways, National (Roads)	C	
Winds I Down to the	for C.1. 1.D.1.4	
A J	,, ,, for Cultural Relations	
,, ,, Administrative Personnel 432	" ,, of Management Executives	
Hind Mazdoor Sabha 482	,, of Medical Research	
Hindi, Sanskrit & Modern Indian Languages	,, ,, of Social Welfare	483
(Education) 145	" Drugs and Pharmaceuticals Ltd. (G.I.U.) 2	
Hindu Mahasabha, Akhil Bharat 360	" Embassies Abroad	
Hindustan Aeronautics Ltd 274, 574	" Federation of University Women's Associa-	44
,, Antibiotics Ltd 275	tions	W 200 1000
,, Cables Ltd 275, 580	" Federation of Working Journalists	405
,, Coir (Govt. Ind. Und.) 275	" Institute of Management	
" Copper Ltd. (Govt. Ind. Und.) 275	" " " Mass Communications (Broad-	
" Housing Factory Ltd 275	casting)	314
" Insecticides Ltd	" " Petroleum	
" Latex Ltd 276	" ", Public Administration	
,, Machine Tools Ltd	" " " Science	
Photo Film Mfg Co Ttd 970	Investment Center	87, 540
Solta Ttd (Cost Ind Thedastable and One	Machine Teel Mf. A.	
Shinward Itd (Cont Ind III detaling) and	Marshants' Chamber	
Charl Ttd /Cont Tnd TTnd-1-1: 1 cmm rot	Matin Dist B 10 Til	
, Teleprinters Ltd	National Co.	167
,, Zinc Ltd	W	62, 363
Hirakud Dam Project (Irrigation) 35		405
Home Science College, Sri Avinashilingam 543	Nowa Agencies	15, 574 244
Hotels (Tourist's Guide) 10	oil Corporation Ltd	
Housing 321	" Petrochemical Corpn. Ltd	The same of
Housing Factory Ltd., Hindustan 275	" Railway Passengers Conference Association	483
Hutti Gold Mines Co. Ltd 285	,, Rare Earths Ltd. (G.I.U.)	278
Hyderabad Municipal Corporation 380	" School of International Studies	
" & Secunderabad Commercial Firms 596	" Standards Institution	405
,, Trades & Professions 598	" Telephone Industries Ltd. (G.I.U.)	279
" Tanneries Ltd 282	" Trade Commissions Abroad	589
Hydro-Electric Scheme (Irrigation) 36	Indians Overseas	286
The same than the analogous translations of the same o	Indira Kala Sangeet Vishwavidyalaya	452
the state of the s	Indo-Pakistan Relations	323
Idikki H.E. Project 440	Indore University	452
I.L.O., India and the 307	Industrial Credit and Investment Corporation	167
Import & Export Trade 226	" Development Bank of India	167
Import of Metals and Alloys 198	", Corporation, National	168
Imports (Food) 20	, Disputes, Statistics of	299
Income, National 235	Estates	102
Income-Tax Appellate Tribunal 582	" Finance Corporation of India	167
Index Numbers of Wholesale Prices 256	" Information Centre	425
India Foundation 491	" Housing Scheme	322
" Government Silver Refinery 278	,, Licensing Policy Inquiry Committee	116
" Tourism Development Corpn 167	Production 1969	307
india's International Investment Position, 1965-66 & 1966-67	" Research Council	52
& 1966-67	" Securities Market (Capital Market)	110
ndia's Relations with China 325	,, Societies	119
dian Air Force	Undertakings Communication	113
" " Lines Corporation	, Undertakings, Government Information Services (The Press)	271
101	THE PERSON	2245

	PAGE				PAGI
I—(Contd.)		Kaira Coop. Milk Producers' Union			428
Institute of Applied Manpower Research	405	Kalakshetra	1765	1500	540
,, for Training in Industrial Engg. (National)	488	Kalamandalam, Kerala	ES.DY		443
" of Chartered Accountants of India	405	Kalinadi H.E. Project			506
" " Communicable Diseases, National	43	Kalyani University			562
" ,, Cost and Works Accountants of India.	568	Kameshwara Singh Darbhanga Sanskrit	Unive	reity	397
" " Mass Communication (Broadcasting)	314	Kandla Port	IN CO		41
" ,, Nuclear Medicines and Allied Sciences	406	Kanpur University			553
" " Office Management in India	406	Vernotely University	• •		509
Institutions for the Blind in India	37	Kachmin (Tourist's Quide)			8
for Research in Humanities	51	State Towns &			432
Instrumentation Ltd. (G.I.U.)	279	The state of the s		THE WAY	435
Insurance	16	Vanil- Ct.t.	Fina	Marie III	
T. 10 17 (077)	9.584			Joen!	435
International Act Contact		,, ,, Administrative Personnel	rin in	57.7	170
CL L - CC	540			A STANK	172
	406	To be a second of the second o			442
" Children's Competition	293	O . T . T . L	ARREA B	Man of	67
,, Confederation of Free Trade Unions	406	" Govt. Ind. Undertakings	90	I have	283
" Council on Social Welfare	483	" University	1		442
" Cultural Centre	406	Khadi and Village Industries Commission	1	78, 82	
" Investment Position, India's	179	Khandala		al toy	497
" Highways (Roads)	164	Kolaba District	Cattools	THE TOTAL	495
" Labour Office	594	Kolar Gold Mining Undertakings		2.	280
,, Welfare Agencies	248	Kolhapur District	••		495
Inventions (Awards & Prizes)	294	Korba Thermal Station	Market Market	Marin State	450
Investment Position, India's International	179	Kosi Project (Irrigation)			36
Iron Ore (Mines and Minerals)	194	Kothagudem Thermal Scheme (Andhra	Prad	esh)	378
Irrigation	33	Kulu Valley (Tourist's Guide)		**	8
Isotope Laboratory	57	Kurukshetra University		WI STO	430
		Kutch District			421
To the state of th		Kuttiadi H.E. Project			440
Jabalpur University	452	Kyanite and Sillimanite (Mines & Minera	als)		196
Jadavpur University	561				
Jalgaon District	494				
Jammu and Kashmir State	432	Tabanatasian National			53
Jammu & Kashmir State Financial Corporation	172	Labour			296
" Administrative Personnel	435		*	N. S.	481
", Associations	435		***		90
" ,, Govt. Ind. Undertakings	283		•		445
,, ,, Legislative Assembly and Leg.		Laccadive, Minicoy and Amindivi Islands Lalit Kala Akademi		1.	406
Council	338	The state of the s	**	323,	
Universities	435	Land Acquisition and Development Schen			
Jamnagar District	421	" Development Banks	*		118
Jan Sangh, Bharatiya	361	Languages (Population)			135
Janpath Hotels Ltd	279	Lead-zinc Ore (Mines & Minerals)	*		195
Jawaharlal Nehru Krishi Vishwa Vidyalaya	453	Leather Industry, Village (Cottage Industry,	stry)		81
TT-1ite-	401	Legislative Assemblies, Councils, Lok	Sabha	000	
University	279	Rajya Sabha		332	-360
Jayanti Shipping Co. Ltd	453	Legislature (Constitution of India)			159
Jiwaji University	296	Lemongrass Oil (Veg. Oil Industry.)			226
Jnanpith Award	531	Liabilities & Assets (International In			100
Jodhpur University	306	Position)			180
Joint Management Councils (Labour)		Life Insurance Corporation	**	16,	577
Junagadh District	421	Lighthouses (Ports)	•		40
Jute Industry	88	Lignite Corpn., Neyveli		**	281
Jyoti Chitraban	282	Lime Mfg. Industry (Cott. Ind.)		**	82
K		Limestone (Mines & Minerals)		180	194
	418	Literacy (Population)		**	125
Kadana Project (Gujarat)	421	Livestock			29
Kaira District					

P	AGE		PAGE
L—(Contd.)		Maharashtra State Corporations	
Loan Scholarships (Education)	146	Maithon-Sultanganj Transmission Scheme	
Locomotive Works, Diesel	273	Management Councils, Joint (Labour)	
Lok Sabha	355	Manganese Ore (Mines & Minerals)	
Lonavla	497	Manipur	
Low-Income Group Housing Scheme	460	,, Administrative Personnel	502
Lube India Ltd. (Petroleum Ind.)	212	Maps (See under each State)	
Lubrizol India Ltd, (Petroleum Ind.) 211,	280	Maritime Freights Commission (Shipping Industry)	
Lucknow University	553	" Union of India	
		Marathwada University	
M	167	Marketing Societies, Agricultural (Coop. Movement)	118
Machine Tool Corporation of India	276	Match Industry (Cottage Industries)	
" Tools Ltd., Hindustan		Matheran Hill Station	
Machkund Hydro-Electric Scheme (Andhra Pradesh)	378 446	Maternity (Public Health)	. 46
Madhya Pradesh	454	" Benefit (Labour)	298
Administrative Personnel		Mathura-Brindavan	. 9
Associations, Societies, etc	453	Mazagon Dock Ltd. (Govt. Ind. Undertakings)	280
Govt. Ind. Und	284	Mechanised Farms	. 21
Legislative Assembly	339	Medical Council of India	406
State Corporations	172	" Radiology	. 44
Universities	452	,, Research	
Madhya Pradesh Laghu Udyog Nigam Ltd	284	,, Education (Public Health)	4=
Madras Associations	538	,, Science Societies (Research)	50, 52
" University	538	Medium of Instruction in Universities (Education	
Madurai University	538	Meerut University	
Magadh University	397	Meghalaya	200
Magnesite (Mines & Minerals)	195	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	200
Mahableshwar	498	The state of the s	400
Maharaja Sayajirao University of Baroda	420		10
Maharashtra Chamber of Commerce	477	Mental Hospitals	905
,, Electricity Board	458	Merchant Navy Training	E9
" Labour Welfare Board	462	Metallurgical Laboratory, National	-
,, Legislative Assembly and Council 341	, 342	Meteorology	
" Ports	42	Meteorological Department, India	
Maharashtra State	455	Mica (Mines & Minerals)	. 194
Administrative Personnel	499	,, Mine Welfare Fund	
Agriculture	464		322, 460
Associations (Trade & Commercial) in Greater		Mid-term Elections	
	-492	Military Schools	
Benevolent Institutions in Greater Bombay	477	Milk Plants (Livestock)	
Chambers of Commerce in Greater Bombay	477		. 461
Corporation	173	Millets (Agriculture)	
District Associations	489	Millowners' Association, Bombay	
Districts 493	-499	Mineral Development Corporation	. 168
Educational Institutions in Greater Bombay	486	" Sand Industry (Research)	. 55
Electric Power Development	458	" Production (Tables)	197
Employees State Insurance Scheme	462	Minerals & Metals Trading Corporation of India Ltd	1. 167
Fisheries	68	Mines and Minerals	. 192
Govt. Ind. Undertakings	284	Minicoy & Amindivi Islands	. e 445
Greater Bombay	466	3	. 306
Greater Bombay Corporation	467	3F. 1. 100 1 10	. 571
Housing	460	Min an Toning to	. 33
Industries	463	Wat Tall C	. 576
Irrigation	462	4.5	. 295
	, 342	" Industries	-00
Milk Scheme	461	Missionary & Religious Societies in Greater Bomba	
Minarala	456	35 1 D 1	. 280
No. Dames Desirate	459	Manual Time Tad (CTTT)	980
Tri- d D-1-	470	3.5	004
University of Bombay	110	Money Supply	239

	F	PAGE		PAGE
M—(Contd.)			National Institute of Design	423
Motion Pictures Export Corporation, Indian	(sold	167	" ,, of Sciences of India .?	407
		186	t Manining in Industrial	
Motorcycles, Scooters & Three-Wheeler Vehicles			neering	488
Motor Vehicles		, 188	of Communicable Diseases	43
Mulberry Silk	••	99	" of Communicable Diseases	000
Multi-State Parties (Gen. Elections)		327		
Mussoorie (Tourist's Guide)		9	, Laboratories	100
Mysore State		502	" Mineral Development Corporation	004
Administrative Personnel		512	" Newsprint and Paper Mills Ltd	407
Association, Societies, etc	509	-511	" Productivity Council	407
Fisheries		68	" Projects Construction Corporation	168
Govt. Ind. Undertakings		284	" Research Development Corpn	168
Irrigation Projects		504	" Savings Commissioner for India	576
Legislative Assembly & Council		344	" Scholarships Scheme (Education)	146
Trades and Professions, Bangalore		779	" Seeds Corporation Ltd	168
Universities		508	Small Industries Corporation	169
Mysore State Corporations		173	" Textile Corporation Ltd	169
TN - 4 - 1 - 1 1		506	" T.B. Institute of India	510
" Electricity Board	•••	284	Nationalisation of Banks	109
" " Govt. Undertakings			Nationalised Transport (Roads)	165
" " ,, Road Transport Corporation	1	508	Naval Aviation	15
			Navy, Indian	15, 574
N			NEFA	389
		F10		294
Nagaland	*	512	2101114 22 11414	244
" Administrative Personnel	**	513		239, 244
" Legislative Assembly		345	Newspapers (The Press)	209, 243
Nagar Haveli, Dadra and		412	Newsprint	84, 313
Nagarjunasagar Project		36	News-reels	007
Nagpur District		495	Neyveli Lignite Corporation Ltd. (G.I.U.)	100
" University		496	Nitrogenous Fertilisers	00
Nahan Foundry (Govt. Ind. Undertakings)		280	Nomadic & Semi-Nomadic Tribes	110
Naini Tal (Tourist's Guide)		9	Non-Agricultural Credit Societies	118
		496	Non-Credit Societies	118, 119
		418	Non-edible Oils & Soap (Cottage Industries)	80
Narmada Project (Gujarat)	1000	496	Non-Ferrous Industry	91
Nasik District		443	North Bengal University	562
Natana Mketan		575	North-East Frontier Agency	389
National Aeronautical Laboratory	• •	479	", ", Railway	268
National Association for the Blind			North-Eastern Railway	267, 557
" Awards ·· ·· ··	14.14	290	Northern Railway	267
Awards for Children		293	Nuclear Reactors	56
,, for Films		295	Nuclear Research and Atomic Energy (Resear	
for Handicapped		294	Nuclear Research and Atomic Lang, (Nuclear Research and Atomic Lang)	47
Pools Tourst of India		407	Nursing (Public Health)	
Dellainer Construction Corporation		167	0	c
Codet Corns (Defence Services)		13		
Coal Development Corpn. Ltd		168	Oil and Natural Gas Commission	210, 582
,, Coar Development Corpu. Eva.		306	" Exploration and Production	209
• Commission on Labour		168	" India Ltd	210
Cooperative Development Corpn.	••	407	,, Technological Research Institute	382
" Council of Applied Economic Research	1	407	Optical Glass	281
" of Educational Research	and		Ordnance Factories (Defence Services)	13
Training	143	3, 407		515
Design Institute		423		520
Film Trohive of India		84		520
Ritness Corps		6, 574	,, Associations, Inducations	00
, Tethess Corps.	-	40	, Fisheries	045
,, Harbett Bette		163	" Legislative Assembly	3774
" Highways (Ivoads)	i dini	235	State Corporations	
	33.0	168	" " Govt. Undertakings · · · · ·	286
Industrial Development Corporation		200		

	PAGE		PAGE
O—(Contd.)		Press, The	238
Orissa Univ. of Agriculture & Technology	519	Press Associations, Societies	248
Osmanabad District	496	Press Clippings	245
Osmania University	379	Press Council	246
Overseas Communications Service	39, 572	Press Laws	243
Carpone and the property of the second secon		Press Photo Agencies	246
P		Press Information Bureau	245, 581
Pachmarhi (Tourist's Guide)	9	Primary Education	142
	99	Private Sector Refineries	210
Package Programme (Food)	101	Prizes and Awards	289
D W 1777 D 1 177 14	440	Production (Industrial), 1969	.0 307
Pallivasal H.E. Project (Kerala)	80	" Minerals	197
Panch Mahals District	422	Projects Construction Corporation, National	168
D. J. U.D.	314	Public Accounts Committee (Lok Sabha)	358
Panchayati Kaj	498	" Finance	256
D. T. I.	208	" Health	43
D II - Direct	100	Town 400 TTQ (TTQ A:d)	254
Parliament	158	Q / D A	210
D	207	C . C . This This	585
Party Position (Lok Sabha)	327	T 1 . 1: 0 . 11 . 17 1 0 11 .	358
Patna University	397	Punjab	522
Patratu Thermal Power Station	394	A1 11 0 D 1	207
Peasants' and Workers' Party of India	364	A 1 TT	200
PEN, All-India Centre	101	Association Total Control of the	200
D 10 · 1	700	7 1 1	940
Petrochemical Corpn. Ltd., Indian	278	gt t G	1774
Petroleum (Mines & Minerals)	193	The state of the s	FOE
Data I Talan	900	Pyrites and Chemicals Development Co. Ltd.	001
DI CONTRACTOR OF THE PARTY OF T	100	Tyrtes and Chemicais Development Co. Ltd.	281
DI /D III II III	10	R	
Disable to Tartilian	7.00		700
Photo Films Mfg. Co., Hindustan	276	Rabindra Bharati University	562
Photographic Materials (Chem. & Pharma. Indu		Radiochemistry Laboratory	57
	50, 52	Radio & Electricals Manufacturing Co. Ltd.	285
		Radio News Reels (Broadcasting)	. 313
D T 400 /TTO D LI' T	224	,, Photo Service (Overseas Communication	
DI	Children of the Control of the Contr	Service)	39
Di . C	701	,, Telephone Services (Overseas Commun	
DI	A	tions Service)	39
Dlautin T. Jant	010	Radiology, Medical (Public Health)	44
Plutaniam Plant (Passant)		Railway Board	583
Political Associations Devil-	400	,, Budgets	270
Dollstan Doubles and Combat	000	" Service Commission 501, 54	
Portion of India	360-367	Railways	265
Dondish Ct. t.		Rainfall of India	64
Administrating Descensel		Rajasthan State	. 527
	522	,, Administrative Personnel	532
Boons District	346	" Associations, Institutions etc	531
Thimmit		" Legislative Assembly	@ 347
Trades & Drofessions	497	" State Corporations	174
Donulation (1061 Comme)	775-779	" Universities	531
Dorto	123	Rajkot District	422
Posts and Talemanha	40	Rajya Sabha	359
	236	Ramkrishna Math & Mission	543, 569
,, ,, Board Potassic Fertilizers, Imports of (Table)	572		397
	190	Rare Earth Plant (Research)	55
Pottery Industry (Cottage Industries)	81	" " Indian	278
Poultry (Livestock)	30	" Metals (Mines & Minerals)	196
Praja Socialist Party	365	Ratan Tata Industrial Institute	484

		PAGE							1	PAGE
R—(Contd.)			Sang	li District		S. Marine	33,613			498
Rationing (Food)		22	CONT. 11 10 200	Nirankari Ma		100	1000			408
Ratnagiri District		497		krit and Mode						145
Ravishankar University	316	453		, University					ST YE	397
Dames T. J.		202		, Vishva Vi					1	556
Receipts and Disbursements (Public Finance)	E.	258	Sand	ar Patel Unive	naitre	, varan		Transit of		421
Refineries (Petroleum Industry)		210	Sard	ar Patel Unive	rsity		A STATE OF			492
				a Seva Sangh				a trans		498
Regional Institute of English, South India	1	510		ra District					100	
Regulated Markets (Agriculture)	• • • • • • • • • • • • • • • • • • • •	27		lite Communic						57
Rehabilitation of the Handicapped	24	8, 307	THE RESERVE OF THE PARTY OF THE	ura Thermal S			THE STATE OF			450
Rehabilitation Industries Corporation Ltd.		169		ar University			**			453
Religion-wise Population		139		ashtra Univers		100		A NO.		422
Religious Societies in Gr. Bombay		489		jirao Univ. of					900	420
Rental Housing Scheme	3	323	Sche	duled Banks (			**			107
Republic Day Awards	1	289	A SHIP	, Castes, 7					190	59
Re-rolling Industry (Steel Industry)	-	215	THE .	, Castes &	Sch. T	ribes (P	opulat	ion)	124	, 135
Research		50	Scho	larships (Educ	ation)		-			146
" Association of India, Automobile		188		" for Re	search	in Socia	1 Scien	ices		292
, Bodies	U SWI	57		" for Te	achers'	Children	n			146
and Davelonment (Civil Aviation)	THE REAL PROPERTY.	163		ol of Foreign 1						14
and Davidonment (Defence Services)	HOS	12	Scho	ols of Social W	ork			130		248
(Pinhonian)		66, 70		tific Societies						50
for Transcription		51		& Indust	rial Res	search, (	Council	of		52
		34	Sea (	Cadet Corps			1			485
,, (Irrigation)	•	292	Seco	ndary Educati	on					142
		577	Secu	rities Market,	Industr	ial (Cap	ital Ma	arket)		110
Reserve Bank of India		328	Seed	s Corporation,	Nation	al	No. of Contract of			168
Reserved Seats in Lok Sabha and State Assemb			Serie	ulture and Sil	k			A STATE OF		96
Resettlement Directorate (Defence Services)	1100	14		ants of India				No.		491
Resources for the Fourth Plan	· · · · · · · · · · · · · · · · · · ·	321		ice Medals (De						14
Revenue and Expenditure, Sources of		256		Institutes	Small-S	Scale Inc	1)			102
Revolutionary Socialist Party		365	Con.	Ratio (Popula	tion)	JOHN THE	THE CANA		Since	123
Revolving Fund	HALL T	323	Char	kar's Intern	tional	Childre	m'e C	omnetit		
Rice (Agriculture)	**	26				· ·				293
River Valley Projects (Irrigation)	1	34		mukhanand F						485
Road Transport Corporation Ltd., Central		166	Char	avathi Valley	Project	s w ban	Sootha			506
Roads		163						DESCRIPTION OF THE PARTY OF THE	(9233)	425
Rockefeller Foundation	-	408		da Peeth			**			29
Rocket Launching Station		57		p (Livestock)					14:31	4
Roorkee University		554		ar Outfitters		3.15			阿克克	492
Rourkela Steel Plant		277		shana Prasara			100	2 ***		485
Rubber Industry		94	Shill	oi Kendra						13
Rural and Urban Population		124	Ship	Building & R	epairs (	Defence	Service	es)	370	The same
Electrification Corporation	A LOS	169	Ship	ping Compani	es and	Airways		100	**	260
,, Electrination Corporation		144		Corporat						281
" Higher Education				, Industry					••	204
S			Ship	yard Ltd., Hi	ndustan					276
Paris Decimals		440		omani Gurdwa		andhak	Comn	nittee		526
Sabarigiri Hydro-Electric Projects		422	Shiv	aji Loka Vidy	apitha				**	490
Sabarkantha District		000		University			1.0			495
Safety Awards, National	400	485	Shol	apur District		11.00	ALTER B		400	498
" First Association of India · ·	1107	408	Shor	os and Comm	ercial I	Establish	ments	, Statis	tics	300
Sahitya Akademi (Delhi)			Shra	m Vir Awards				1000	THE ST	290
,, ,, Awards		291	Shri	Ram Institute	of Ind	ustrial 1	Resear	ch		408
Sainik Schools	-	14		Board, Centra		13.00	1 5	14.00		98
Salt (Mines and Minerals)		196		Industry			4.5	1100	10	96
Salvation Army		479	9:1	Er (Bullion)		2 22 -		34. 15		177
Sambalpur University		519	SHV	Refinery, In			10000	Was all		278
Samyukta Socialist Party		365	,"	Remery, In	idia Go				U.S.	200
Sangeet Natak Akadami (Delhi)		408	Sing	areni Collierie		· 数等 员	1		4	325
Sangeet Natak Akadami (Delm)		293	Sinc	-Indian Relati	ons					

	PAGE		D
S—(Contd.)	LAGN	T	Pagi
Slum Clearance Improvement Scheme	202 400		N. N. 1
C. III I	323, 460	Talcher Thermal Scheme	518
	169	Tamil Nadu	533
	100		544
S.N.D. Thackersey Women's University	471	Associations, Societies	538
Snow-bound areas (Population)	125		537
Social Control (Insurance)	20		286
" Education	145, 248	Madras Classified List of Trades and Profession	ns 791
" Reforms (Administration of Justice)	157	Madras Commercial Firms	784
,, Service Agencies	248	Madras Corporation	537
" Welfare in India	246	Fisheries	67
	27	Africa Transmission	538
Soldiers', Sailors' and Airmen's Board (Def	ence	m	. 175
Services)	14	" ,, Legislative Assembly & Leg. Council	348, 349
South Central Railway	268, 383	O 1 TT 1 1 1 1	. 286
South-Eastern Railway	268	The second of th	. 169
South Gujarat University	423	m - T - T	. 87
Southern Railway	268, 545	m	. 57
Space Research (Research)	57	m: c c + 173 + m 11	. 229
Special Courts (Administration of Justice)	156	The transition of The 1 and 1 and 1	. 488
,, Missions	587	" " of Social Sciences	. 488
Spices	102	Desirate	. 459
Sports	317	Tow December (Dublic Timeses)	. 257
,, Awards	294	The Dead	. 578
Sri Ramakrishna Mission Vidyalaya	543	Tea Industry	. 216
Sri Venkateswara University, Tirupati	380	Technical Education	. 150
St. John Ambulance Association	400	Tolongon Tinde III	. 378
State Associations (see under each State)	408	Tolomonto Dosto 3	. 236
The state of the s	all the Taylor	Tolombone Industria Indian	. 279
Dedesta 1000 E1	577	Tolonhones	. 237
Co an and time Date	288	Tolowisian (Page desetted)	. 312
	118	Toponor Potone (Amigultone)	. 28
F C (7 7)	170	Torritorial Army (Defense Comical)	. 15
0 1 0 4 4 2 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Toytile Industry	217
m 1: C	282	", ", Research Association	
		Thana District	. 499
State-wise Allocation & Expenditure on Sch. Ca	stes	Thorium Plant (Research)	EE
& Sch. Tribes Welfare (table)	60	Tobacco Industry	
States Adm. Personnel (see under each State)		Tourism Development Corporation	
" Commercial Firms & Classified Trades	596	Tourist's Guide, A	
,, Territories	1	Tourist Offices	
Steel Industry	213	Towns (Population) Traco Cable Company	100
,, Plant, Hindustan	277	Traco Cable Company	909
Stock Exchange, Bombay	476	Trachoma	45
Subsidiary Foods (Food)	23	Trada Agranamenta /T 18 T3 1 T3 1	. 229
Subsidised Industrial Housing Scheme	322, 460	" Commissions	. 594
Sugar Industry	104	" , Abroad, Govt. of India	589
Sulphur (Mines and Minerals)	195	" Unions, Statistics	. • 299
Sulphuric Acid	189	Training and Education (Community Development	1 200
Supreme Court of India	154, 585	Projects)	OIF
Sur-Singar Award		Training Institutions (Defence Services)	74 75
Surat District	100	" of Craftsmen (Labour)	000
Surendranager District		Transport Bodies (Roads)	700
Survey of India	423	Travel Agencies (A Tourist's Guide)	
Swatentra Porty	576	" Agents' Assocn. of India	476
Weeners' Housing Calama	366	Trends in India's Foreign Trade (Import and Export	
weepers' Housing Scheme	460	Trade)	
ynthetic Rubber (Rubber Industry)	94		80 218

		Y.	AGE
	PAGE		482
T—(Contd.)		Vigilance Association, Dombay	556
	59	Vijnana Parisnad	453
	306	Vikram University	322
Triparitie Dabout Machinery (-	545		81
	546	Leather Industry (October 2	79
Administrative I elsomica	350	" On (Cottage Industry)	81
Legislative Historical	284	Pottery industry	77
Trivandrum Rubbet Works Zee	45	, Small industries	562
Theremosis (Fubile Hearth)	408	Visva-Bharati	485
ASSOCIATION OF THE	33	Visva Yoga Bharati	313
Tube-wells (Irrigation)	6, 378, 506		303
Tinngaphadra Froject.	285	Vocational Guidance & Employment Counselling .	306
" Steel Products	103	Voluntary Arbitration (Labour)	
Turmeric (Spices)		w	
U TA			
		Wage Board for Working Journalists and Non-	
Udaipur University	531	Journalists	246
Ukai Project (Gujarat) · · · ·	417	· Wages (Labour) · · · · · · · · · · · · · · · · · · ·	301
U.N. and Other Bodies in India	593	Wardha District	499
U.N. Children's Fund (UNICEF)	593	Warehouses (Food)	22
UNESCO Prize Competition for Books	293	Warehousing Corporation, Central	166
Union Executive (Constitution of India)	158	Washeries (Govt. Ind. Undertakings)	281
Union Parliament (Constitution of India)	158	Watch Factory, H.M.T.	276
Public Service Commission	585	Weaning Food (Food)	23
Territories (Constitution of India)	1,160	Weaving Subsidiary Scheme	82
Territories (Constitution of Lindia	169	Welfare Board, Central Social	249
Unit Trust of India Universities (See also under each State)	149	West Bengal	557
Universities (See also under each State)	148, 574	Administrative Personnel	570
University Grants Commission Scholarships	292	Associations, Societies etc	563
of Agricultural Sciences	509	Chambers of Commerce · · · · ·	570
of Agricultural Boleness	5, 170	Commercial Firms	811
Tranium Corporation of 222	55	Corporation, Calcutta	561
Ore Mili	295	Educational Institutions	561
Urvashi Awards	253	Fisheries	
U.S. Agency for International Development	253	Govt. Ind. Undertakings	
II S AIGITO IIIGIA	408	Legislative Assembly	
U.S. Educational Foundation	245	State Corporations	
U.S. Information pervice (1110 1110)	254	Trades and Professions	
U.S. Public Law	255	University of Calcutta	
U.S. Technicians	124	Visva-Bharati University	
Urban Population	519	India Automobile Association	
Utkal University	547	Western Railway 2	269, 501
Uttar Pradesh	556		. 26
Administrative Personnel	554	Who's Who in India	849, 946
Associations	250	Tolegraphs)	
Legislative Assembly	175	Wireless Telegraph Services (Overseas Communica	
State Corporations	286	tions Service)	
c C State Govt. Undertakings	553	Tr 'e Education	
Universities	252	University, S.N.D. Thackersey	. 47
Vidhan Parishad		Wool Processing Centre	. 28
		Woollen Industry	. 20
V .	PER PURE	- trail time Cohome	. 30
Vanaspati (Vegetable Oil Industry)	225	The Class under Different Categories (1 open	A-
Vanita Vishram	480		
Vanita Vishram Vidvalava	556	Transaction Act (Labout)	29
Varanase a Danskii Visita Visita	224	err 1 1 for the Blind	48
Vegetable Oil Industry	380	TT 11 TT -14h Organisation	55
		World Health Organisation	40
Venkateswara Omversory  Veterinary Research Institute (Livestock)  Vicenta Maria Social Service Society	480	) Worll Dairy	
Vicenta Maria Social Service Society			

#### DIRECTORY & YEARBOOK

	1		P	AGE				PAGE
Y					Z			-
Yarn Production				218	Zinc (Non-Ferrous Industry)	1		91
Youth Welfare (Social Welfare) Yeotmal District	13.4			248 499	Zine Ltd., Hindustan			278
Yoga Institute, The		He el		485	Zonal Administration (Railways)			265
Yoga Science University Yoga-Vedanta Forest Academy		19.	ALC: N	486 556	" Councils (Constitution of India)			159
Y.W.C.A			409,		Zoological Survey of India	100	1	576

ERRATA: Scales of maps in Kilometres: Andhra Pradesh: 1" = 133 Kms. Assam: 1" = 114 Kms. Bihar: 1" = 89 Kms. Gujarat: 1" - 95 Kms. Jammu & Kashmir: 1" - 95 Kms. Kerala: 1" - 80 Kms. Madhya Pradesh: 1" - 178 Kms. Madras: 1" - 145.5 Kms. Maharashtra: 1" = 123 Kms. Mysore: 1" = 100 Kms. Nagaland: 1" = 123 Kms. Orissa: 1" = 100 Kms. Rajasthan: 1" = 140 Kms. Uttar Pradesh: 1" = 145.5 Kms. West Bengal: 1" = 100 Kms.

Statement about ownership and other particulars about newspaper entitled "The Times of India Directory & Year Book" (including "Who's Who"), 1970, as required to be published under Sec. 19D of the Sub-Sec. (b) of the Press and Registration of Books Act read with Rule 8 of the Registration of Newspapers (Central) Rules, 1956 (as amended).

#### FORM IV

(See Rule 8)

1. Place of publication:

2. Periodicity of its publication: 3. Printer's Name :

Nationality:

Address: 4. Publisher's Name: Nationality:

Address: 5. Editor's Name : Nationality: Address:

6. Names and addresses of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total Paid-up Capital:

The Times of India Press, The Times of India Building, Dr. Dadabhoy Naoroji Road, Bombay-1.

Every year.

Pyarelal Sah for the Proprietors: Bennett, Coleman & Co., Ltd.

Rehmat Manzil, 2nd Floor, Flat No. 8, 75, Vir Nariman Road, Bombay-20.

Pyarelal Sah for the Proprietors: Bennett, Coleman & Co., Ltd.

Rehmat Manzil, 2nd Floor, Flat No. 8, 75, Vir Nariman Road, Bombay-20.

Sham Lal. Indian.

22, Ashoka Apartments, Nepean Sea Road, Bombay-6.

#### SHAREHOLDERS

(1) Bharat Nidhi Ltd., 5, Parliament Street, New Delhi.

(2) Messrs. Sahu Jain Ltd... 11, Clive Row, Calcutta 1.

(3) The Jaipur Udyog Ltd., Sawai Madhopur, Rajasthan.

(4) Messrs. Sone Valley Portland Cement Co. Ltd., 11. Clive Row. Calcutta-1.

Allahabad Bank Nominees Ltd., 14, India Exchange Place, Calcutta-1.

Shri Ashok Kumar Jain. 11, Clive Row. Calcutta-1.

Ashoka Viniyoga Ltd., 1-B, Old Post Office Street, Calcutta-1.

I. Pyarelal Sah, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date: October, 1970.

-m4D

P. L. Sah Signature of Publisher

## WHY SO HAPPY?

His dream has come true. He is now running a small but prosperous business-thanks to the help of The Chartered Bank Group. Whether you want to start a small scale industry or expand an existing one, we are ready to finance you-if you can convince us that your scheme is economically sound. Why don't you drop in today and discuss your project with us-in strict confidence, of course. May be we can make YOUR dreams come true.



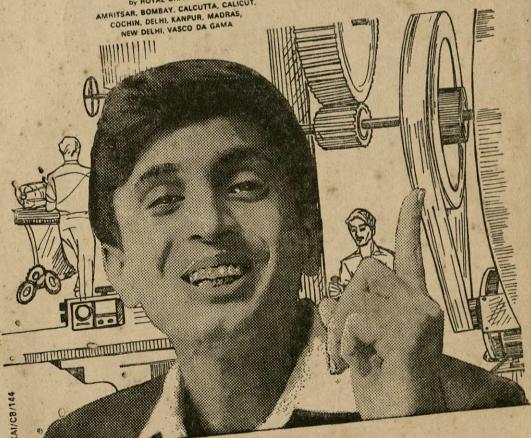
# The Chartered Bank Group

#### THE CHARTERED BANK Incorporated in England with limited liability

by ROYAL CHARTER 1853 AMRITSAR, BOMBAY, CALCUTTA, CALICUT.

### THE EASTERN BANK LTD.

Incorporated in England with limited liability 1909 BOMBAY, CALCUTTA, MADRAS.



## We supply a varied range of

LIFTING TRUCK



STEEL DOLLY





SWIVEL CASTOR



RUBBER TYRED WHEEL



PLATFORM TRUCK



HYDRA TRUCK



FOUR-WHEELED TROLLEY



BEAM TROLLEY



BESIDES THE FEW ITEMS SHOWN HERE, WE ALSO SUPPLY COMPANION FIXED BRACKETS FOR SWIVEL CASTORS, TEXTILE TROLLEYS, SPECIAL PURPOSE TRUCKS, HAND TRUCKS FOR SACKS, DRUMS, CYLINDERS, CASES ETC., SPARE TYRES, ROLLERS FOR GRAVITY CONVEYORS, STACKERS ETC.

FOR PARTICULARS PLEASE CONTACT-

## uiarat

INDUSTRIAL TRUCKS LTD.

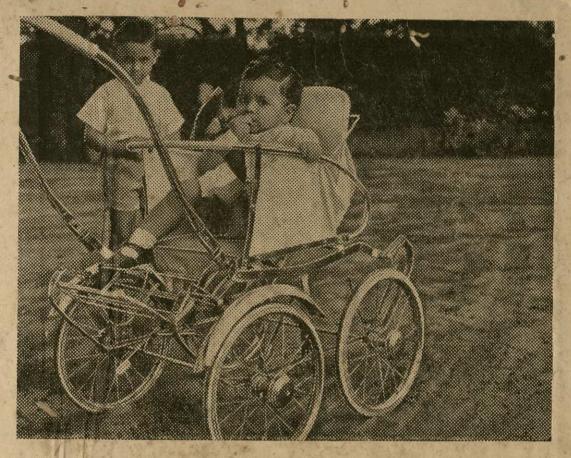
BOMBAY OFFICE: INDÍA HOUSE, WALCHAND HIRACHAND MARG. FORT, BOMBAY-1.

Phone: 261248. Grams: 'ANJUCASTOR'

REGD. OFFICE & WORKS:

SURAT NAVSARI ROAD, P.O. BARODA RAYON, UDHNA (DIST. SURAT.) Phone : 8106. Grams : 'AMEETRUCK'





#### He's one of our best customers

## though he doesn't know it yet

pram (made from tubes we make) and have a world-famous bicycle fitted with the most comfortable saddle and a bright dynamo lamp, all of which we make.

The power to light his home will come through one of the millions of transformers we help to make with our cooling tubes.

The bus, car or train he rides will have

When he grows up he'll stop riding his steel tubes as part of it, which we produce in every shape and size for all such requirements.

> Coming to think of it, we will have much to do with his life, even considering what we make now.

> And our future growth? That's for him to guide, for what we do is what would do him good, directly or indirectly.

What we make now: The world-famous Hergules, Phillips and BSA cycles which have set standards of unequalled quality in over 135 countries; Kohinoor and Grand Champion cycles for the export markets.

TRU-WEL ERW steel tubes, Brampton cycle fittings, Olympic, Brooks and Hector saddles, TI cycle chains and Miller dynamo lighting sets for the cycle industry and trade.

TRU-WEL ERW steel tubing, cold-rolled steel strip, Diamond roller chains for heavy and light engineering industries, and METSEC cold roll-formed metal sections.



TUBE INVESTMENTS OF INDIA LTD, Madras-1 Proprietors of: TI Cycles of India—Tube Products of India— The Wright Saddles of India—TI Metal Sections. Subsi-diaries: TI Diamond Chain Limited—TI Miller Limited Backed by TI Research and Technology

Printed & Published by Pyarelal Sah at The Times of India Press, Bombay. India, for the Proprietors: Bennett, Coleman & Co., Bombay. New Delhi Office: 7, Bahadur Shah Zaffar Marg; Calcutta Office: 13/1 & 13/2, Government Place East; Ahmedabad Office: Ashram Road, Ahmedabad 9; London Office: 3, Albemarle Street, W. I.

